Luftkrigsskolens
skriftserie

Volum nr. 10 (desember 2003)

Luftmakt 2020
Fremtidige konflikter og utfordringer
GILs Luftmaktseminar 2003

Karl Selanger (red.)

ISSN 1502-007X

Luftkrigsskolen
Royal Norwegian Air Force Academy

Trondheim MIL
N-7004 TRONDHEIM

Ugradert

Publikasjon/report number	Sikkerhetsgradering/ Security classification	Antall sider / Number of pages
	Ugradert	206

Tittel / Title

Luftmakt 2020. Framtidige konflikter og utfordringer. GILs Luftmaktseminar 2003

Forfatter / Author

Karl Selanger (red./ed.)

Indeks / Indexing terms

På norsk:

a) Luftforsvaret
b) Luftmakt
c) Internasjonale operasjoner
d) Terrorisme
e) Forsvarspolitikk

In English:

a) The Royal Norwegian Air Force
b) Air Power
c) International Operations
d) Terrorism
e) Defence Policy

Abstract

The Royal Norwegian Air Force's annual air power symposium was arranged in Trondheim between 21th and 23th January 2003. Theme of the symposium was Airpower 2020: Future Conflicts and Challenges. Future conflicts were analysed from the point of view including September 11th, Operation Enduring Freedom in Afghanistan and the threatening Iraq Liberation.

The speakers treated the theme in an ethical, military, political and future science context.

Om skriftserien

Luftkrigsskolens skriftserie så dagens lys høsten 1999, og har til hensikt å publisere stoff som kan bidra til å stimulere den akademiske debatten i Forsvaret og samfunnet for øvrig. Det foreligger ingen utgivelsesplan for skriftserien, men ambisjonen er å komme med tre til fire utgaver hvert år – det avhenger av tilgangen på interessant stoff.

Tidligere utgivelser kan bestilles fra luftkrigsskolens bibliotek, men de vil i løpet av kort tid også bli tilgjengelige i PDF- format. For nærmere info, bruk oppgitte e-postadresse.

Karl Erik Haug
Førstelektor/redaktør

Adresse:
Luftkrigsskolens skriftserie
Luftkrigsskolen
Trondheim mil
7004 Trondheim

Karl.Haug@LKSK.MIL.NO

Tidligere utgivelser (kan bestilles fra biblioteket ved Luftkrigsskolen)

Volum 1 :	Øistein Espenes og Nils E. Naastad: Luftforsvaret – et flerbruksverktøy for den kalde krigen?
Volum 2 :	Gunnar Fermann: Aspekter ved konflikt og konflikthåndtering i Kosovo
Volum 3 :	Lars Fredrik Moe Øksendal (red.): Nytt NATO – nytt Luftforsvar? GILs Luftmaktseminar 2000
Volum 4 :	Ljubisa Rajic: Luftkampen sett og vurdert fra Beograd
Volum 5 :	John Andreas Olsen (red.): Luftforsvaret i fremtiden: Nisjeverktøy for NATO, eller multiverktøy for Norge? GILs Luftmaktseminar 2001
Volum 6 :	Ole Jørgen Maaø: Litteraturen om norsk luftfart før 2. verdenskrig. En oversikt og bibliografi
Volum 7 :	Albert Jensen et al.: A Critique of the Norwegian Air Power Doctrine
Volum 8:	Karl Erik Haug (red): Luftmakt, Luftforsvarets og asymetriens utfordringer.
Volum 9:	Morten Karlsen, Ole Jørgen Maaø og Nils Naastad: Krigen mot Irak

Innhold

Bidragsytere

Tomas Colin Archer er generalmajor i Luftforsvaret. Han startet karrieren i Luftforsvaret som flyger på Sea-King, Etter fullført utdannelse ved Luftkrigsskolen tjenestegjorde han som jagerflyver og fløy CF 104 Starfighter og F-16. Han har stabsskole II, og har graduert ved Royal College of Defence, England. Han har bl.a. vært Skvadronsjef(334) Opsgruppesjef (Rygge), assisterende lufttjenesteinspektør samt kontorsjef ved programkontoret i FO. Han ble stasjonssjef ved Bodø Hovedflystasjon i 1996, og var prosjektoffiser ved FFI før han tiltrådte som Generalinspektør i Luftforsvaret i august 2000.

Shaun Clarke er Wing Commander i det New Zealandske flyvåpen, der han startet sin militære karriere i 1981. Han er utdannet flyver og har en variert flyoperativ bakgrunn. Clarke er Bachelor i science og er i sluttfasen av sin MA i Business. Han er i tillegg uteksaminert fra den Australske stabsskole. Han har utgitt boken *Strategy, Air Strike and Small Nations* og har publisert ulike skrifter innenfor militære spørsmål. Wing Commander Clarke tjenestegjør nå som Sjef Current Operations i Joint Headquarters New Zealand.

Anthony H. Cordesman er professor ved Center for Strategic and International Studies (CSIS) og er spesialist i forsvars- og sikkerhetspolitisk analyse med vekt på Midt-Østen og Asia. Han har ledet flere studier og programmer innen amerikansk forsvarsstrategi og internasjonal militærbalanse. Han har tjenestegjort som politisk rådgiver i det amerikanske forsvars-departement , og andre regjeringskontorer. Professor Cordesman har utgitt mer enn 20 bøker, og er benyttet som sikkerhetspolitisk og militær kommentator for ABC news.

Bjørn Hansen er utenriksmedarbeider i NRK TV. Han har i en årrekke vært tilknyttet NRK Dagsnytt og har vært utenrikskorrespondent i USA. For tiden leder han NRKs utenriksprogram, URIX.

Gunnar Heløe har vært statssekretær siden 2001 i Forsvarsdepartementet for Høyre. Han har grunnfag statsvitenskap fra Universitetet i Oslo. Han har utdannelse fra Sjøkrigsskolen, har operativ erfaring fra MTB skvadroner, vært tilknyttet Forsvarets stabskole og jobbet i sentral-staben/fellesstaben i FO. Heløe har master of science i ”Advanced maritime defence technology” fra Royal Naval Engeneering College, Plymouth i England, og Forsvarets stabsskole del 1 og Canadian Forces Command and Staff Course, Toronto i Canada. Han er Kommandørkaptein av grad.

Morten Karlsen er major i Luftforsvaret. Han er utdannet cand.scient med hovedfag fysikk fra Universitet i Trondheim og mellomfag historie. Hans hovedoppgave har blitt presentert i ulike forskningsfora bla i Japan. Morten Karlsen arbeider nå som hovedlærer ved Avdeling for Luftmakt og Teknologi ved Luftkrigsskolen.

Phillip Meilinger er Deputy Director ved SAIC Aerospacecenter. Han har tjenestegjort i USAF i mer enn 30 år som pilot, stabsoffiser, dekan ved School of Advanced Airpower Studies og som professor ved både Naval War College og Air Force Academy. Han har publisert bøker, artikler og ulike skrifter innenfor luftmaktsteori, doktrine og operasjoner. Han er en meget anvendt foredragsholder så vel i USA som i andre deler av verden.

Marit Nybakk har vært Stortingsrepresentant for Arbeiderpartiet siden 1985. Hun er leder i stortingets forsvarskomite. Blant mange politiske og offentlige verv kan nevnes leder for LO i Oslo 1992-97 og leder for Oslo Arbeidersamfunn fra 1999. Hun er utdannet Cand.mag. fra Universitetet i Oslo, og har også studert språk, drama og teater.

Nils E Naastad har vært ved Luftkrigsskolen i Trondheim siden 1986, hvor han var med på å etablere Avdeling for Luftmakt og Teknologi.. Våren 2002 fullførte han sin doktoravhandling ved NTNU med tittel; *En planlagt krig, RAF og den britiske opprustningen på 1930 tallet*. I tillegg til å være en mye benyttet foreleser ved skolen og ved stabsskolen, er han en flittig bidragsyter til flere publikasjoner med materiale av forsvarshistorisk eller militærteoretisk karakter.

John Andreas Olsen er major i Luftforsvaret. Han har MA fra University of Warwick og PhD i strategiske studier fra De Montfort universitetet, begge læresteder i England. Han underviser ved Luftkrigsskolen hovedsakelig innen luftmaktsteori. Han har nylig utgitt boken; *Strategic Air Power in Desert Storm*, og er for tiden i arbeid med en ny bok. Major Olsen har i tillegg utgitt flere artikler. Olsen er i perioden 2003-2005 elev ved "Führungsakademie der Bundeswehr" i Hamburg, Tyskland..

Johan Peter Paludan (Cand.scient.pol) har vært direktør ved instituttet for fremtidsforskning IFF i København siden 1976. Han beskjeftiger seg med de fleste aspekter av fremtidsforskningen både emnemessig og metodisk. Han holder årlig ca 100 foredrag om varierende tema som for eksempel sunnhet og helse, samfunnsutvikling og teknologi.

Gunnar Stålsett har vært biskop i Oslo bispedømme siden 1998. Han er utdannet Cand. theol. ved Menighetsfakultetet i 1961 og tok Praktisk teologisk seminar i 1962. Samme år ble han ordinert. Han var Generalsekretær i Det Norske Bibelselskap 1982-85 og i Det Lutherske Verdensforbund i 1985-94. Han har innehatt et tyvetalls tillitsverv i hovedsakelig kirkelige og humanitære organisasjoner. Biskop Stålsett har vært Statssekretær i Kirke og undervisningsdepartementet, leder for Senterpartiet i perioden 1977 – 79 og vararepresentant til Stortinget i en periode. Han har mottatt utmerkelser for fredsarbeid i Guatemala, og er innehaver av Albert Schweiser Humanitarian Award, The Wittenberg Award, og er Kommandør av Den kongelige St. Olavs Orden.

Sten Widmalm er assisterende Professor i sammenlignende politikk ved Statsvitenskapelig institutt, Universitetet i Uppsala. Spesialfelt India og Kashmir. Aktuell med boken "*Kashmir in a Comparative Perspective - Democracy and Violent Separatism in India*", (2002). Boken er basert på hans doktoravhandling. Widmalm har i tillegg skrevet en rekke artikler og bidratt i ulike fagbøker som er publisert i Sverge og i utlandet.

Luftforsvaret og fremtidig maktanvendelse

Gunnar Heløe

Innledning

Ærede forsamling, jeg setter stor pris på å få holde åpningsforedraget på årets luftmaktseminar. Seminaret er et viktig forum for diskusjon av problemstillinger knyttet til luftmakt. Samtidig har man lyktes med å skape en møteplass som inkluderer en rekke andre aktører enn bare de lyseblå. Jeg er imponert over den brede deltakelsen på seminaret.

Ambisjonen for årets luftmaktseminar er å se inn i fremtiden for å kartlegge utfordringer og å analysere luftmaktens funksjon for å håndtere disse utfordringene. Det slår meg umiddelbart at ambisjonsnivået for seminaret – i et noe utvidet perspektiv – kan sammenliknes med de utfordringene som Forsvarsdepartementet står overfor når det gjelder utforming av neste langtidsdokument for Forsvaret: *Hvilke rammebetingelser påvirker Forsvaret, og hvordan innretter vi Forsvaret i fremtiden for at det skal være et relevant sikkerhetspolitisk virkemiddel?* Arbeidet med dokumentet er for lengst igangsatt i tett samarbeid med Forsvarssjefen, og dokumentet skal etter planen behandles av Stortinget våren 2004.

Tittelen på mitt foredrag er *Luftforsvaret og fremtidig maktanvendelse*. Jeg vil belyse denne problemstillingen gjennom å vurdere det handlingsrommet jeg ser for anvendelse av militærmakt og luftmakt i dag og i årene som kommer. Jeg vil si litt om hvilken type konflikter vi må være forberedt på å kunne håndtere og peke på de moralske sidene ved bruk av militær makt. Jeg vil også redegjøre for de overordnete rammebetingelsene for Forsvaret. Med dette som bakteppe vil jeg til slutt peke mer konkret på egenskaper og kapasitetskrav som vil være styrende for utformingen av Luftforsvaret når vi nå står foran arbeidet med neste langtidsdokument for Forsvaret.

Mindre tydelig skille mellom nasjonal og internasjonal sikkerhet

Luftmakt inngår sammen med andre typer militærmakt som en sentral del av den sikkerhetspolitiske verktøykasse. Min oppgave som politiker er å forsøke å anlegge et helhetsperspektiv på sikkerhets- og forsvarspolitikken. For meg er spørsmålet først og fremst hvilken rolle militærmakt og luftmakt skal spille i denne helheten. Den helt nødvendige omstillingen de seneste årene skyldes i hovedsak dyptgripende endringer i den virkelighet Forsvaret må forholde seg til. Trusselbildet er endret, oppgavene er ikke de samme som før og kravene er annerledes.

Det har i hele etterkrigstiden vært vanlig å dele inn Forsvarets virksomhet i *nasjonale* og *internasjonale* oppgaver. Dette skillet er ikke lenger hensiktsmessig. Bortfallet av en direkte militær trussel i vårt nærområde har bedret Norges sikkerhet i forhold til tradisjonelle utfordringer. Nye utfordringer har imidlertid kommet til. Forsvaret som sikkerhetspolitisk redskap må tilpasses de utfordringene som vår tids trusler mot norsk suverenitet, og mot internasjonal fred og sikkerhet, representerer.

Vi må derfor ta konsekvensene av at skillet mellom nasjonal og internasjonal sikkerhet langt på vei er utvisket. Forsvaret av norsk sikkerhet har blitt mer *fremskutt*. Vår deltakelse i militære operasjoner på Balkan og i Afghanistan illustrerer dette forholdet. Deltakelse i operasjoner utenfor Norge er ikke lenger *tilleggsprosjekter*, men en *kjerneoppgave* for Forsvaret. Et skille mellom nasjonale og internasjonale operasjoner er derfor stadig mindre meningsfull.

Poenget er at det stilles samme krav til styrker som er egnet for operasjoner *utenfor* Norge som til kjernen av styrkene egnet for operasjoner *i* Norge: Høy kvalitet, høy reaksjonsevne, høy mobilitet, og – ikke minst – interoperabilitet. Konsekvensene av dette vil bli tillagt stor vekt i utarbeidelsen av neste langtidsdokument for Forsvaret.

Forsvaret skal samtidig ha evne til å håndheve norsk suverenitet og håndtere episoder og kriser i Norge og i norske områder som ikke er av et slikt omfang at regjeringen vil involvere alliansen. Hensikten med en slik nasjonal episode- og krisehåndtering er hurtig, og med et minimum av negative konsekvenser, å bringe ulike episoder og kriser – inkludert terrorangrep – under kontroll på norske premisser.

Anvendelse av militærmakt og luftmakt

Hva så med betingelsene for og konsekvensene av dagens anvendelse av militærmakt og luftmakt?

Militærmakt

Slutten på den kalde krigen innebærer at vi ikke lenger kan nøye oss med å planlegge for en total krig i Norge, men snarere må forholde oss til potensielt mange forskjellige typer konfliktscenarier. Dagens utfordringer har en helt annen karakter enn de trusler vi forberedte oss på under den kalde krigen. Det er altså en form for "opplyst egeninteresse" når Norge engasjerer seg i internasjonale konflikter. Vi eksporterer sikkerhet gjennom å bidra til å løse konfliktene før de kommer ut av kontroll. Vi skaper trygghet for at konfliktene ikke ender opp ved vår dørstokk. Dette innebærer at vi tidvis risikerer å treffe upopulære beslutninger om deltakelse i operasjoner, hvor det ikke er like innlysende for alle at deltakelsen er til nytte både for oss selv og for dem konflikten i første omgang gjelder.

Under den kalde krigen var bruk av militærmakt mer tydelig definert og på mange måter enklere å forholde seg til. Noe forenklet kan man si at enten var det full krig eller full fred. I tilfelle krig var rollen til soldaten og offiseren å forsvare eget territorium. Slik er det ikke i dag. Norges deltakelse i flernasjonale fredsoperasjoner er fremskutt forsvar av norsk sikkerhet. Dette stiller strengere krav til oss politikere, og til vår evne til å motivere, lede og støtte rollen til våre offiserer og soldater som deltar i operasjoner langt fra Norges grenser.
Den kalde krigens relative militære stabilitet må imidlertid betraktes som en historisk unntaksperiode. Supermaktenes konfliktdempende lokk er borte. Væpnede konflikter oppstår – også i Europa.

Noen vil hevde at vi med dette er tilbake til det historisk normale. Det finnes en tradisjon basert på *Clausewitz'* tanker der man betrakter krig som en fortsettelse av politikken med andre midler. Noen vil kanskje oppfatte slike tanker som umoralske, eller som militaristiske. Dette er etter mitt syn en misforstått måte å beskrive *Clausewitz'* hovedpoeng på. Poenget er at bruk av væpnet makt må ha et politisk basert formål, en politisk begrunnelse. Alternativet til dette er å føre krig for krigens egen skyld.

Supermaktenes trussel om gjensidig utslettelse under den kalde krigen betydde at det *clausewitzske* perspektivet om politisk bruk av militærmakt for å nå konkrete mål, ble helt borte. Forholdet mellom politiske mål og bruk av væpnet makt ble forskjøvet. Krigen ble total. Mål og midler, sett i relasjon til den prisen man måtte betale, sto ikke lenger i forhold til hverandre. I en slik situasjon var det ikke lenger plass til politiske målsetninger utover ønsket om å avskrekke, det vil si unngå en utslettende krig.

Paradokset er at med den kalde krigens slutt er krigen tilbake, nærmest som en følge av at den ikke lenger er total. *Clausewitz* er tilbake. Politikken er tilbake. Militærmakt har igjen blitt et politisk virkemiddel. Jeg mener ikke å si at dette er gledelig – tvert imot. Men det er en realitet vi må forholde oss til. Spørsmålet er ikke om bruk av væpnet makt kan forsvares, men under hvilke *betingelser* og for hvilke *formål* maktbruk er legitimt.

Luftmakt

Bruk av militærmakt er altså mer aktuelt nå enn tidligere. Jeg vil videre påstå at bruk av luftmakt har blitt enda mer aktuelt, og at luftmakt i mange situasjoner fremstår som et mer attraktivt virkemiddel enn annen maktbruk. Dette henger sammen med at luftoverlegenhet er helt nødvendig for å kunne gjennomføre militære operasjoner og med luftstidskreftenes evne til å levere presisjonsstyrte våpen på stor avstand.

Feltmarskalk Montgomery understreket for over 50 år siden betydningen av å etablere luft-overlegenhet som en forutsetning for annen militær virksomhet:

Dersom vi taper luftherredømmet så taper vi krigen – og vi vil tape den meget raskt.

Samtidig er bruk av luftmakt ofte det minst risikable når det gjelder tap blant egne styrker – noe som er langt mer sannsynlig ved bruk av bakkestyrker. NATOs manglende vilje til å benytte bakkestyrker i den helt innledende fase i Kosovo-konflikten illustrerer dette poenget. Både i operasjonene i Gulfen, Kosovo og Afghanistan ble luftmakt benyttet i stor grad. Til og med kamphelikoptre ble vurdert som for risikabelt for egne styrker. Utfallet av Kosovo-konflikten kan i stor grad tilkjennes luftmakt alene.

Også operasjonene i Afghanistan har vist hva moderne teknologi og trente mannskaper kan oppnå. USA lyktes med å fjerne *Taliban*-styret og deler av *al-Qaida*-nettverket gjennom å benytte store mengder presisjonsstyrte avstandsleverte våpen. I større grad enn under Kosovo-konflikten var det imidlertid nødvendig å samvirke med bakkestyrker for å rydde *Taliban* og *al-Qaida* av veien.

Dette betyr at for visse typer konflikter og operasjoner er det i stor grad luftpersonell som utsettes for episoder som kan medføre tap. Dette er et alvorlig moment for unge som velger en yrkeskarriere i Luftforsvaret.

Luftforsvarets personell har allerede lang erfaring med deltakelse i flernasjonale freds-operasjoner. Disse operasjonene kan imidlertid være politisk sensitive. Enkelthendelser på lavt nivå kan være nok til å eskalere konflikter ytterligere. Det hviler derfor et stort ansvar på Forsvarets personell som deltar i slike operasjoner. Å forstå og fortolke denne virkeligheten kan være vanskelig. Personellets egen vurderingsevne, kjennskap til folkeretten og forståelse av *rules of engagement* blir viktig. Under slike alvorlige betingelser er utdannelse, moral og ledelse nøkkelbegrep.

Også i dette perspektivet har man nytte av *Clausewitz* og hans omtale av moralske faktorer i krig. For *Clausewitz* utgjorde de moralske elementene *ledelsens skikkethet, personellets erfaring og mot* samt deres *patriotiske innstilling.*

Det hviler også et stort moralsk ansvar på oss, på politikere som velger å anvende luftmakt i militære konflikter. Det er avgjørende at de som faktisk utfører oppdraget vet at oppdragsgiveren stiller seg bak dem både når det oppstår positive og negative situasjoner. Derfor er det viktig at vi som politiske oppdragsgivere viser et tydelig politisk lederskap.

Vi kan ikke sende norske soldater i strid hvis vi er i tvil om fornuften eller moralen i engasjementet. I følge *Clausewitz* var det ikke motet, men klokskapen som var den viktigste egenskapen hos ledere. Dette er det verd å merke seg både for militære – og ikke minst – for politiske ledere når bruk av militærmakt er aktuelt.

Sentrale eksterne rammebetingelser

Forsvaret påvirkes av eksterne rammebetingelser, og fremtidig bruk av militærmakt må tilpasses disse rammebetingelsene. Saksfeltene som ble behandlet på NATO-toppmøtet i Praha i november i fjor illustrerer på mange måter den nye sikkerhetspolitiske situasjonen og aktuelle virkemidler for å håndtere denne. På toppmøtet ble NATO utvidet fra 19 til 26 medlemsland – noe som i seg selv markerer NATOs vedvarende rolle og betydning. Hovedfokus under toppmøtet var imidlertid rettet mot å forbedre *NATOs evne til å utføre sine oppgaver på en hensiktsmessig måte*.

Betydningen av å fremskaffe nødvendige kapasiteter har blitt spissformulert av NATOs generalsekretær som – gjennom å benytte Tony Blairs uttrykksmåte om utdanning fra siste valgkamp – har slått fast at de tre mest prioriterte områdene for NATO er: *capabilities, capabilities, and capabilities.* Særlig beslutningene som ble fattet innenfor tre viktige forsvarspolitiske områder er sentrale: prosess for forbedrete kapasiteter, hurtig utrykningsstyrke og kommandostruktur.

PCC

For det første skal medlemslandenes militære kapasiteter forbedres gjennom *Prague Capabilities Commitment (PCC).* NATOs behov for å ivareta sine kjernefunksjoner under nye strategiske betingelser, herunder et endret trusselbilde og kampen mot terror, ligger til grunn for prosessen. De nødvendige kapasitetene skal etableres gjennom nasjonale forpliktelser, utvidet flernasjonalt samarbeid og enkelte fellesfinansierte løsninger innenfor NATO-rammen.

En viktig målsetning med PCC er å bedre alliansens kapasiteter innenfor de fire hovedområdene:

- forsvar mot kjemiske, biologiske, radiologiske og kjernefysiske våpen;
- kommando-, kommunikasjons- og informasjonsoverlegenhet;
- evne til operativt samarbeid og effektivitet i kamp; og
- hurtig deployering og utholdenhet.

Som jeg var inne på innledningsvis, er en moderne innretning av Forsvaret avgjørende både for at våre egne styrker effektivt skal være i stand til å delta i flernasjonale operasjoner, og for at vi skal være i stand til å ta imot allierte styrker for krisehåndtering i Norge eller i norske nærområder.

Norske bidrag til PCC er derfor identifisert med tanke på å forbedre norske militære styrkers fleksibilitet, deployerbarhet, utholdenhet og evne til å samvirke med andre lands militære enheter. De mest sentrale norske forpliktelsene er:

- Forbedre beskyttelsen mot masseødeleggelsesvåpen
- Bidra til å utvikle fellesalliert luftbåren bakkeovervåkning
- Øke beholdningen av presisjonsstyrte luft-til-overflatevåpen
- Bidra til en midlertidig flernasjonal løsning for å skaffe til veie en strategisk transportflykapasitet

- Bidra til en flernasjonal løsning for å skaffe til veie tankfly
- Bidra til å øke tilgangen til strategisk sjøtransport
- Forbedre støttefunksjonene for deployerbare hærstyrker, inkludert anskaffelse av taktisk UAV
- Anskaffe støttefartøy til våre nye fregatter

Flere av de norske PCC-tiltakene vil ha stor betydning for Luftforsvaret.

NATO Response Force
Det andre toppmøtetiltaket for å forbedre NATOs militære evne var opprettelsen av en hurtig innsatsstyrke, *NATO Response Force (NRF)*. Konseptet for styrken er fortsatt under utvikling, men det legges opp til at den skal være sammensatt med bidrag fra alle forsvarsgrener og på kort varsel kunne settes inn i alle typer operasjoner, uavhengig av geografisk område.

Tanken er at styrken skal være opprettet i løpet av 2004 og være fullt operativ i løpet av 2006. Opprettelsen av *NATO Response Force* vil tilføre alliansen en meget nyttig ressurs. Ikke minst viste erfaringene med å sette sammen *Enduring Freedom* og *ISAF*-styrkene i fjor at mange NATO-land hadde urovekkende svak reaksjons- og deployeringsevne.

Styrken utgjør en konkret operativ målsetning og vil på mange måter være en lakmustest for kapasitetsarbeidet i alliansen. Den vil også fremstå som en katalysator for hvorvidt de identifiserte midlene i kapasitetsarbeidet – slik som omprioritering av materiellprosjekter, nisjeutvikling, flernasjonalt samarbeid og rollespesialisering – vil være tilstrekkelig for å nå målsetningene med å modernisere NATOs militære kapasiteter.

Kommandostruktur
Det tredje tiltaket for å styrke NATOs militære evne er å tilpasse alliansens kommandostruktur. Toppmøtet besluttet at det fortsatt skal være to strategiske kommandoer:
Den ene skal ligge i Belgia og skal lede den operative kommandokjeden for hele NATOs område og alle operasjoner. Den vil hete *Allied Command Operations*. Endringene vil kunne medføre at den type hovedkvarter som NATO i dag har i Stavanger, samt det allierte luftkontrollsenter på Reitan (CAOC), blir avviklet.

Den andre strategiske kommandoen vil ligge i USA, i *Norfolk, Virginia*. Den vil hete *Allied Command Transformation* og få ansvaret for omformingen av alliansens styrker, det vil si militær transformasjon. Blant de saksfelt som omfattes av dette er konsept- og doktrineutvikling, styrkeplanlegging, trening, utdannelse og eksperimentering. Kommandoen skal ha et såkalt ”betydelig fotavtrykk” i Europa, både for å styrke alliansens transatlantiske dimensjon, og for å sikre at transformasjonen av alliansens militære kapasiteter trekker både på amerikansk og europeisk kompetanse og erfaringer.

Selv om ingenting er endelig besluttet, vil et fremtidig NATO-nærvær på norsk jord bli forskjellig fra det vi har hatt frem til i dag. Dette er isolert sett ikke noen ønsket utvikling for Norge. Men Norge har samtidig et ansvar for at NATO skal få en slankere og mer tidsmessig kommandostruktur som kan lede NATOs operasjoner på en effektiv og troverdig måte. Det vil i et bredere perspektiv også tjene Norges interesser.

Sentrale interne utfordringer – driftsvekst og teknologisk fordyrelse

I tillegg til eksterne utfordringer står Forsvaret fortsatt overfor store interne utfordringer i årene som kommer. Alle disse forholdene tilsier at fortsatt rask og dyptgående omstilling av Forsvaret er nødvendig.

Den pågående omstillingen blir utfordret fra to sider. *På den ene siden* den teknologiske fordyrelse som innebærer at de produkter og tjenester Forsvaret er avhengig av, gjennomsnittlig fordyres med over 2 prosent årlig. Dette skjer i tillegg til den ordinære prisveksten.

På den andre siden økningen i driftskostnadene, som i Forsvarsstudien 2000 ble anslått til å ligge på ca 1,7 prosent i året utover den kompenserte lønns- og prisvekst. Dette skyldes at de varer og tjenester Forsvaret benytter seg av – både internt og det vi kjøper utenfra – stiger raskere i pris enn gjennomsnittet i konsumprisindeksen.

Konsekvensene av disse forholdene er potensielt dramatiske. Konklusjonen er enkel: Forsvaret må hele tiden drives mer effektivt enn tidligere**.** De endringer vi må anbefale i neste langtidsdokument kan ikke sees adskilt fra den omstillingen vi nå er i ferd med å gjennomføre. Den moderniseringen og endringen vi sannsynligvis vil legge opp til i neste langtidsdokument, bygger videre på de resultater vi allerede er i ferd med å oppnå. Vi må altså ha to tanker i hodet samtidig. Fullt trykk på den pågående omstillingen, samtidig som vi forbereder oss på neste runde. Vedvarende omstilling er derfor nødvendig: Kontinuerlig omstilling kommer til å bli regelen, ikke unntaket, for Forsvaret i fremtiden.

Krav til fremtidens Forsvar og Luftforsvarets innretning

Hva betyr så dette konkret? Hvilke egenskaper og kapasitetskrav vil være styrende for utformingen av Luftforsvaret når vi nå står på terskelen til utformingen av et nytt langtidsdokument?

Generelt må Forsvaret være *moderne*. Dette innebærer at alle enhetene i styrkestrukturen skal holde et internasjonalt høyt nivå, både hva angår kompetanse, utrustning og evne til å operere sammen med hverandre og med allierte styrker. Styrkene må kunne operere i et moderne stridsmiljø og kunne håndtere et bredt spekter av oppgaver og trusler.

Forsvaret må også i mye større grad bli *nettverksbasert*, det vil si at alle enheter må kunne knyttes sammen i ett, helhetlig nettverk ved hjelp av informasjonsteknologi. Dette vil gi en dramatisk forbedret informasjonsflyt, og tilrettelegge for økt hurtighet og presisjon, både med hensyn til beslutninger og med hensyn til å sette disse ut i livet.

Videre må Forsvaret være *alliansetilpasset.* Det innebærer at Forsvaret må være i stand til å operere effektivt sammen med allierte styrker både hjemme og ute, og bidra aktivt til å løse hele spekteret av NATOs oppgaver.

Vil en alliansetilpasning bety at den militære aktiviteten og tilstedeværelsen i Nord-Norge vil bli redusert samtidig som deltakelsen utenlands øker? Nei! Tvert om har Forsvarets aktivitet og tilstedeværelse i Nord-Norge de siste årene økt. For Luftforsvaret innebærer flyttingen av 332-skvadronen fra Rygge til Bodø i 2002 samtidig med nedleggelsen av 334-skvadronen i Bodø, en økt relativ andel jagerfly i Nord-Norge. Også flytimene for F-16 viser samme utvikling: 39 prosents andel i Nord-Norge i 2000, 41 prosent i 2002 og 54 prosent planlagt i 2003. Samlingen av den maritime helikoptervirksomheten til Sola, herunder teknisk vedlikehold og drift, fra 2004/2005, innebærer ingen operativ nedprioritering av Nord-Norge, siden den operative

virksomheten videreføres som tidligere med hovedtyngde i nord. Poenget er å ha tilstrekkelig fleksibilitet for å kunne ivareta oppgavene på en hensiktsmessig måte.

Forsvaret skal også være *oppgavebasert.* Med andre ord: De oppgavene Forsvaret skal være i stand til å løse må være styrende for styrkestrukturen og de kapasitetene som anskaffes eller videreføres. Det betyr at det er styrkestrukturens evne til å løse *helheten* av Forsvarets oppgaver som skal avgjøre sammensetningen.

Det er også viktig at Forsvaret er *i langsiktig balanse*. Forsvaret må drives og fornyes slik at kompetanse og kapasitet opprettholdes, også på lengre sikt, innenfor gitte økonomiske rammer. "Baugbølger" av investeringer som er skjøvet ut i tid, utsatt vedlikehold, nedtærede lagre og lignende, må i størst mulig grad unngås. Langtidsperspektivet skal være styrende for all strukturutvikling i Forsvaret, både for å skape en mest mulig effektiv struktur på sikt og for å unngå feilinvesteringer.

Når det gjelder innretningen av fremtidig styrkestruktur legger NATOs nylig oppdaterte politiske retningslinjer blant annet vekt på følgende forhold:

- Et stort behov for fleksible reaksjonsstyrker som er utholdende, mobile og deployerbare. Styrkene skal være i stand til å håndtere hele spekteret av NATOs utfordringer langt unna eget territorium.
- Videre må kvalitet prioriteres framfor kvantitet.
- Det er i tillegg store mangler på logistikk og støttefunksjoner. Styrker som ikke er i stand til å deployeres med full logistikkstøtte, har begrenset verdi.
- I overskuelig fremtid er det ikke behov for mobiliserbare styrker med lang klargjøringstid. Stående eller tilnærmet stående enheter bør prioriteres ressursmessig.
- Flere medlemsland bør omprioritere budsjetter og planer for å bedre fremskaffe færre, men mer potente mobile styrker for multirolle operasjoner.
- For å utnytte hardt pressede ressurser best mulig, bør flernasjonalt samarbeid utnyttes i stor grad. Dette gjelder ikke minst for å redusere våre egne kostnader knyttet til logistikksiden, slik vi har fått det til i Kirgisistan.

For Luftforsvaret har dette en rekke implikasjoner. Luftforsvaret *skal være deployerbart.* Vi må ha evne til å gjennomføre luftoperasjoner langt borte fra hjemmebasen og med begrenset lokal støtte. Nødvendig infrastruktur og basefasiliteter må i stor grad bringes med hjemmefra. Manglende vertslandsstøtte innebærer utfordringer. Luftforsvaret har allerede kommet langt i å tilpasse seg denne utviklingen. Norge har vist at vi er i stand til å drive operasjoner med jagerfly, transportfly og helikopter langt hjemmefra over tid.

For å bli mer effektive i operasjoner etterspørres også tankfly i NATO. Behovet er stort – det er identifisert en stor mangel på tankfly. Norge deltar i en arbeidsgruppe ledet av Spania som har som mål å etablere en flernasjonal løsning som er organisert og finansiert på lignende måte som AWACS-flåten. En tilfredsstillende og mer permanent tankflykapasitet i NATO vil likevel først kunne etableres ved innfasing av A-400M transportfly med tankingsutstyr rundt 2012.
I tillegg til å være i stand til å deployere, må Luftforsvaret også kunne *sørge for deployering* – både for egen forsvarsgren og for andre deler av Forsvaret. I NATO er det stor mangel på strategisk lufttransport. Kapasiteten er avgjørende for at alliansen skal kunne oppnå målsetningene om rask forflytning av reaksjonsstyrker over store avstander. På toppmøtet i Praha forpliktet Norge seg til å delta i en tyskledet arbeidsgruppe som skal vurdere å skaffe til veie en flernasjonal kapasitet av tunge transportfly.

Luftforsvaret må i økende grad bli innrettet mot *luft-til-bakke og luft-til-overflate operasjoner*. Som en del av arbeidet med kapasiteter i NATO har Norge forpliktet seg til å øke beholdningen av presisjonsstyrte våpen med 30 prosent. Også for denne kapasiteten eksisterer det et flernasjonalt samarbeid hvor Nederland er *lead nation*.

Det er også et økende krav om at medlemslandene skal etablere løsninger for å drive *elektronisk krigføring og jamming* – noe som er kritisk i offensive luftoperasjoner. Det er store mangler både når det gjelder ressurser til *SEAD* og støttejamming. Den sistnevnte kapasitet er særlig ressurskrevende, og kun USA har evne til å bedrive fullgod støttejamming. Norge har støttet et eventuelt prosjekt innenfor NATO-rammen, men det har vist seg vanskelig å komme i mål med en slik løsning.

Det er i tillegg identifisert et *behov for høytrekkende luftvernsystemer* som skal inngå i langtrekkende område missilforsvar (*TMD High Altitude Surface to Air Missiles* - HSAM).
NATO har også et stort behov for *luftbåren bakkeovervåkning*. Norge er aktivt engasjert i NATOs arbeid med luftbåren bakke-overvåkning – AGS eller *Alliance Ground Surveillance*. Kapasiteten – som er svært etterspurt – har imidlertid vært svært vanskelig å fremskaffe på grunn av industrielle utfordringer. Det er likevel håp om at prosessen har kommet på rett kjøl etter toppmøtet. Det vil også være behov for ulike typer ubemannede fly (UAV) – noen som opererer på strategisk og operasjonelt nivå og noen som primært skal støtte hærstyrker og sjøoperasjoner på taktisk nivå.

Det må også legges til rette for *militær transformasjon* i Luftforsvaret. Transformasjon defineres som en aktivitet som fremskaffer en kvalitativt ny kapasitet. Dette står i motsetning til modernisering som forbedrer allerede eksisterende kapasiteter og derigjennom bidrar til transformasjon.

Gjennom å utvikle konsepter som realiserer mulighetene som finnes i skjæringsfeltet mellom teknologi, doktrine, taktikk, organisasjon, trening, øving og materiell, kan det være mulig å realisere store gevinster og radikale løsninger. Det konkrete arbeidet foregår ofte i operative stridslaboratorier. Resultatet er at det utvikles fundamentalt nye måter å føre effektiv strid på, og at dette gjøres i et helhetlig perspektiv.

I Norge har Luftforsvaret – blant annet gjennom *NOBLE* i Bodø – kommet langt i å tilnærme seg mulighetene som ligger i militær transformasjon. Det arbeides for tiden med å forankre transformasjon i resten av Forsvaret. Dette emnet vil også bli behandlet i neste langtidsdokument.

På kort tid har digitalisering av sensorer, plattformer og våpensystemer dramatisk forbedret evnen til presis ødeleggelse av mål på bakken. Samtidig har nye kommunikasjonssystemer muliggjort tettere integrering av militære enheter i *nettverksbaserte* løsninger. Dette er en av hovedforklaringene på de lave tapstallene høyteknologiske militærmakter har hatt de senere år. På lengre sikt vil utviklingen på IT-området trolig komme til å ha enda mer omfattende konsekvenser. Hittil er de teknologiske nyvinningene hovedsakelig blitt utnyttet til å forbedre eksisterende måter å operere på. Det er imidlertid en generell historisk erfaring at teknologiske framskritt først kan utnyttes fullt ut når man foretar en grunnleggende endring av selve organisasjonsrammen for bruk av militærmakt. Dette vil ha stor betydning for den fremtidige utviklingen av Luftforsvaret.

Avslutning

Endringene i den sikkerhetspolitiske situasjonen de siste årene har medført nye rammebetingelser for bruk av militærmakt og luftmakt. Dette stiller Luftforsvaret overfor nye utfordringer. Både Gulfkrigen, Kosovo og Afghanistan demonstrerte luftmaktens sentrale rolle. Likevel er det viktig å være seg bevisst både muligheter og konsekvenser ved dagens anvendelse av moderne luftmakt. Det hviler i så måte et betydelig ansvar på Luftforsvarets personell. Det kan derfor være nyttig å merke seg *Clausewitz* som nettopp fremhevet moralens betydning og understreket behovet for kloke ledere for å kunne lykkes med militære operasjoner.

I utformingen av neste langtidsdokument for Forsvaret må vi ta konsekvensene av denne utviklingen. Forsvarets operative struktur skal kunne benyttes både til å løse de nasjonale oppgavene og til å løse oppgaver sammen med våre NATO-allierte. Dette innebærer at Norge må bidra til alliansen gjennom å stille relevante, fleksible, deployerbare og interoperable militære kapasiteter som sikrer at Norge påtar seg sin del av en rimelig byrdefordeling mellom de allierte. NATO har et stort behov for svært ressurskrevende kapasiteter som tilsier økt flernasjonalt samarbeid. Dette angår i stor grad Luftforsvaret, som i stadig større grad vil måtte bidra med kapasiteter som primært bestemmes på et overordnet nivå ut i fra alliansens helhetlige behov.

Luftforsvaret er godt rustet til å møte en slik utvikling. Forsvarsgrenen har lang erfaring fra internasjonal samhandel og flernasjonale operasjoner. Personellet gjør en svært solid innsats – noe som har medført et solid renommé for Norge. Evnen til slik deltakelse forbedres stadig gjennom et modulbasert og nettverksbasert operasjonskonsept. Det er derfor ingen tvil om at Luftforsvaret vil spille en sentral rolle også i fremtidige militære operasjoner.

Fremtiden – er den forutsigelig?

Johan Peter Paludan

Artikkelen er en godkjent avskrift av forfatterens presentasjon på seminaret. Red.

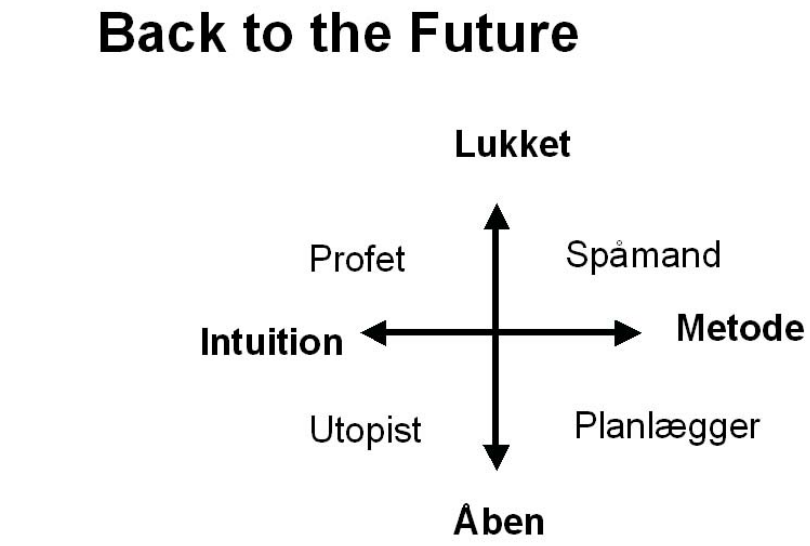
Innledning

Jeg vet ikke om dere har lagt merke til at englendere mener at de kan reise rundt i verden, og bare de taler engelsk høyt, langsomt og tydelig så må jo enhver kunne forstå dem. Det gjør de selvfølgelig fordi England er en gammel kolonimakt. Derfor hadde jeg tenkt meg å tale dansk høyt, langsomt og tydelig. På den annen side må jeg si at jeg er grepet av en viss bekymring overfor en så kompetent og så militær forsamling. Der er ikke mange sivilister tilstede, og dem der ligner sivilister har jeg nok mistenkt for å være forkledde militære. Så derfor må jeg nok heller straks tilstå min amatørisme. Det er det normale for fremtidsforskere å være amatører i selskap med noen som kjenner deres område bedre enn vi, og det går jeg også ut ifra er tilfelle i dag. Jeg må tilstå jeg har ikke en gang vært inne som vernepliktig. Jeg ble kasseret. Det var jeg rett glad for den gang, så jeg er den ekte amatør.

På den annen side må jeg si at jeg har jo sett på forsvarsaktiviteter i mange år, og synes jo nok at de minner meg om det ambivalente forhold vi har til militærmakt. Fordi ved vandring fra den kalde krig til den varme krig, eller hva vi nå skal kalle den situasjon vi lever i dag, synes jeg nok at forsvarsmessige aktiviteter har fått det 'morsommere'. For når man betenker hva forsvarets aktivitet, hva forsvarets funksjon, var under den kalde krigen, så var forsvarets fornemste funksjon for Guds skyld ikke å bli brukt til noe som helst. Og det må jo egentlig ha vært på en eller annen måte noe frustrerende. Min far, som er fra årgang 1920 har fortalt at en del av hans venner i 1945 så valgte å gå inn i det danske forsvar for nå skulle man sikre at sådan en besettelse ikke fant sted igjen. Og da han møtte dem 10 år senere så var de alle sammen dypt frustrerte fordi de gikk rundt der og var dansk forsvar. Men de skulle jo ikke brukes til noe som helst. Det var suksesskriteriet at de satt der og tvinnet tommelfingrer. I så henseende så synes jeg nok at vandringen fra den kalde krig til det der kom baketter, på sitt vis må være oppløftende. Fordi nå skal man jo brukes til noe. Det er selvfølgelig ikke uten risiko og så videre, men jeg synes at det må være alt annet like mer interessant å ha et erverv der skal brukes til noe, enn et erverv der skal leve høyt på ikke å brukes til noe.

Si, nu er spørsmålet som jeg er presentert for, om fremtiden nu er forutsigelig. Og derfor blir jeg nødt til å starte med en litt teoretisk inngang om hva fremtidsforskning er og hva det ikke er. Ambisjonen om å prøve å se inn i fremtiden er jo ikke ny, og der finnes utrolig mange forskjellige betegnelser for hvordan man nu kan gjøre det. En måte å lage en systematikk på er å si at man jo på den ene siden kan velge mellom å betrakte fremtiden som en given ting, altså at der er en fasit, og på den annen side kan man si at fremtiden er en åpen sak, og vi vet ikke hva den blir til. Den andre dimensjon er at man kan gå til fremtiden enten ved hjelp av metoder, eller også så kan man gå til fremtiden med intuisjon. Og når man stiller det opp i kryss som i Figur 1 så ender man med forskjellig ervervsbetegnelser for det å se inn i fremtiden.

For hvis man mener fremtiden er lukket og man kan bruke metoder til å finne fasit, så er man en spåmann, hva enten man nu enten graver i en kaffekopper – det er jo en slags metode – eller man studerer planeters plassering: Astrologer. Det er jo også en



Figur 1. Metoder brukt til å si noe om fremtiden.

slags metode. Man kan mene om den hva man vil, og det skal jeg unnlate å si, men det er *spåmenn*. Eller også kan man si: ”Fremtiden er en given ting, men vi bruker ikke metoder. Vi har vår intuisjon.” De finnes i Det gamle testamente, og de heter *profeter*. De visste hva vei de ville gå. Så kan man gå vekk fra den lukkede fremtid og si at fremtiden kan skapes. Og vi vil skape en bedre fremtid. Det er *utopistene*. Og så har vi hvor jeg mistenker noen av dere å høre hjemme, i *planlegger*sammenheng. Nemlig dem som sier: ”Vi bruker metoder, og vi sørger for å planlegge fremtiden. Vi sørger for å bringe oss dit hvor vi gjerne skulle.” Så ikke si annet enn at fremtiden er rimelig kompleks.

Vi på Instituttet for Fremtidsforskning pleier alltid å starte med å si at selvfølgelig kan man ikke spå, og slett ikke om fremtiden. Av mange årsaker, men fordi vi jo innerst inne godt vet at fremtiden er noe vi lager selv, og det starter vi forfra på hver morgen. Det forekommer en anelse uoverkommelig en gang iblant, men er ikke desto mindre det daglige prosjekt. Så derfor er det jo sånn at jo lenger man fra nutiden av prøver å kikke ut i fremtiden jo mer er svaret avhengig av de handlinger og beslutninger vi treffer fra nu av. Så derfor kan man ikke spå, og slett ikke om fremtiden. Og ærlig talt: Gud skje lov. Prøv å forestill dere hvis man virkelig effektivt, presist og differensiert kunne spå om fremtiden. Det ville jo være grufullt, for så ville man jo være handlingslammet. Så kunne man si: ” Okay. Er det dit vi skal?” Og så kunne man glede seg eller grues alt etter hvordan nu fasit så ut. Så mitt første svar på spørsmålet om fremtiden kan forutsies er: ”Nei, det kan den ikke.”

Mitt neste svar det er at det kan man på den annen side ikke la være å prøve på. Det har noe å gjøre med en grunnleggende kjensgjerning som gjelder oss alle sammen som individer, som organisasjoner, som virksomheter, som samfunn, den grunnleggende kjensgjerning som heter at når man skal treffe en beslutning, så er det upraktisk at man alltid er henvist til å gjøre det i

nutiden, hvilket er umanerlig upraktisk. Det ville dog være smart om man kunne treffe noen beslutninger i fortiden. Jeg har i hvert fall forskjellige ting jeg skulle ha fikset hvis det kunne la seg gjøre. Men det kan det ikke. Vi er alltid henvist til den her nutiden når vi skal treffe våre beslutninger. Og det er jo altså i den fremtid som er så dårlig dokumentert at disse beslutninger skal virke. Som mennesker så vel som organisasjoner, så står vi dermed alle sammen i våre beslutningsprosesser overfor valget mellom å gjennomføre dem på basis av bevisste forventninger om fremtiden eller ubevisste forventninger til fremtiden. Der er ikke andre muligheter. Og dem som tror at de kan treffe beslutninger uten å ha forventninger til fremtiden, de snyter seg selv og kjører på de ubevisste forventninger. Og i valget mellom de bevisste og de ubevisste forventninger til fremtiden vil jeg anbefale de bevisste. De kan være nokså tåpelige, men de er stadig bedre enn de ubevisste. For med bevisste forventninger så har man dog en fair sjanse til å se når man har tatt feil, og dermed også en mulighet for å reparere på skaden. Det har man jo ikke hvis man kjører på de ubevisste forventninger. Så kan virkeligheten 'køre af sporet' innen man blir klar over hvor galt det går. Men som det heter i visse kortspill: "Heller et godt kick enn en dårlig kniving."

Så der derfor er min oppgave i dag, mener jeg, ikke så meget å ha rett i det jeg sier. Det har jeg selvfølgelig ellers ville jeg jo ikke si det, men det interessante er snarere om jeg ved det jeg sier kan skubbe dere litt lenger i retning av å ha bevisste og nyanserte oppfatninger av hva det er for en fremtid som dere mener er mest sannsynlig, og som dere vil legge til grunn for deres beslutninger. Så man kan også si det på den måten at det er ingen plikt til å tro på noe av det jeg sier. På den annen side vil jeg nok mene der er plikt til, hvis dere ikke tror på hva jeg sier, å sette noe annet i stedet. Hvis dere verken tror på meg og dere heller ikke setter noe annet i stedet, ja så kjører dere videre med deres ubevisste forventninger. Man så kan dere ikke se når dere har tatt feil. Så derfor er vi i den lykkelige situasjon at enten har jeg rett, eller så har dere problemer.

Det er forskjellige tilganger til fremtiden som jeg vil illustrere. Jeg mener ikke min oppgave er å fortelle hva det er for en fremtid Luftforsvaret for eksempel skal bygge på, men jeg vil godt vise noen av de tilganger man kan bruke. Og så skal jeg også si at det siste skritt er hvor man sier at hvis fremtiden blir sånn så skal luftmakt være sånn. Det skritt tar jeg ikke, for det er et større prosjekt og det koster meget mer.

Tilganger til fremtiden

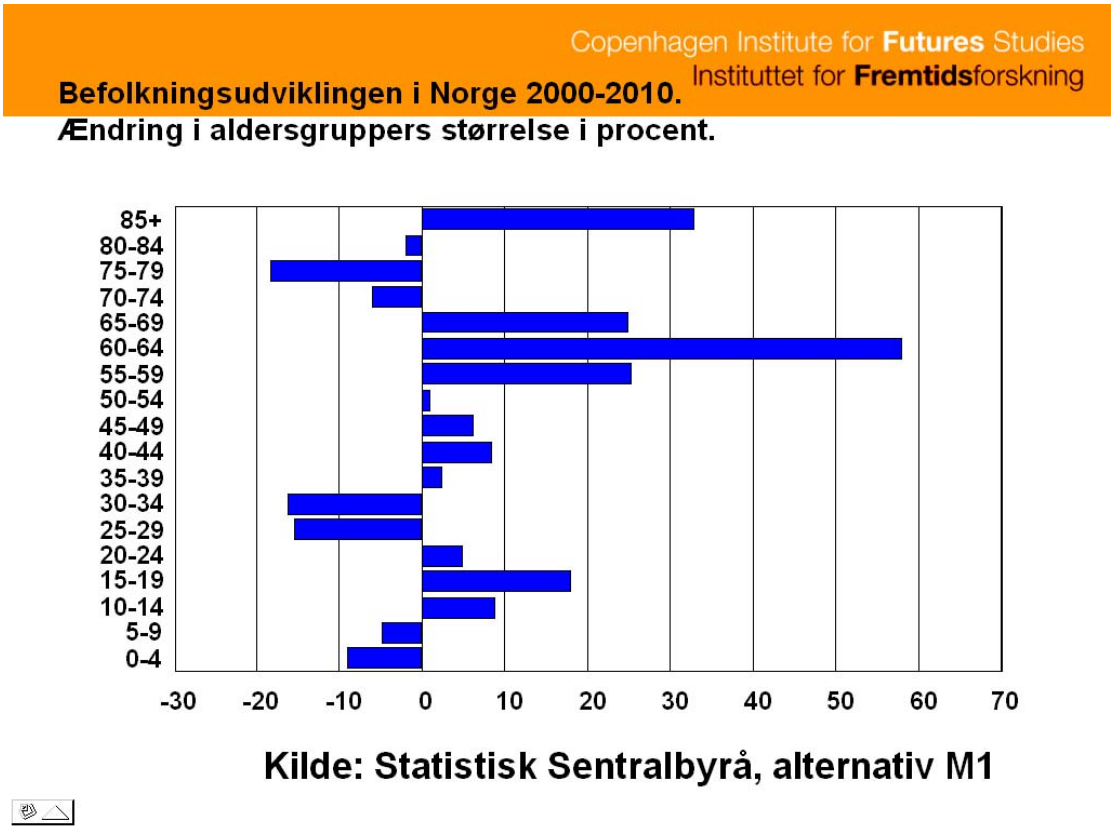
Det er en rekke tilganger, eller måter, å attakkere fremtiden på. Jeg skal prøve at illustrere alle disse her.

Prognoser

Prognoser bruker vi ikke meget av fordi prognosers siste salgsdag ligger tett opp til nutiden. Vi lever i en situasjon hvor tingene forandrer seg så hastig, så jeg har sånn sett vondt av meteorologene. De lager tre dagers prognoser, og så kan folk jo stadig vekk huske hva de sa. Hvis man egentlig skal lage prognoser så skal det være 10 års sikt eller slikt noe. Da har folk for-håpentligvis glemt hva man sa innen det blir realisert.

Jeg vil vise et eksempel på en type prognose som vi bruker, og som jeg vil anbefale dere å bruke. Den sier ikke så mye nødvendigvis om fremtidens internasjonale konfliktmønster, men kanskje noe om det nasjonale konfliktmønster. En prognose som viser utviklingen i den norske befolkningens alder og struktur i tiåret fra år 2000 til 2010 er vist i Figur 2. Den deler befolkningen opp i en rekke aldersgrupper fra de er 0-4 til 85+ år, og viser hva som skjer med den enkelte aldersgruppe i løpet av disse ti år: Vokser den så kjører den til høyre for den

loddrette streken, blir den mindre så den så kjører den til venstre. Radens lengde viser hvor mange prosent den enkelte aldersgruppe vokser eller minker i løpet av disse 10 årene.



Figur 2. Endring i alderssammensetningen i den norske befolkning fra år 2000 til 2010.

Når man kan bruke prognoser her så er det fordi befolkning er en ”tungt omsettelig” størrelse. Den utvikler seg rimelig langsomt, det er noe vi er glade for. Og derfor kan man faktisk si noe rett presis om fremtidens nordmenn om ti år, fordi størstedelen av fremtidens nordmenn går rundt iblant oss i dag. Det som er ennå mer sikkert er at om ti år er nutidens nordmenn ti år eldre – hvis de holder så lenge. Så her er man på rimelig sikker grunn.

Der er selvfølgelig noen usikkerhetsfaktorer. I den ene enden er den usikkerhetsfaktor at dette bygger på det som legene kaller uendret mortalitet, altså at vi dør som vi pleier. Jeg vet ikke riktig hvordan det går i Norge for tiden, i Danmark er vi begynt å ta oss litt sammen og lever litt lenger. Det skjer med menn fordi danske menn er begyndt at holde opp med å røyke. Det har kvinner ikke funnet ut av, så vi vil se en konvergens i menns og kvinners levetid. Kvinner lever 5 år lengere end menn, så der er også en del å ta av.
I den annen ende bygger prognosen på utviklingen i fertiliteten, altså kvinners tilbøyelighet til å få barn. Den er jo rett jammerlig nu om dagen, i hvert fall her i de nordiske landene. Det gidder de ikke. Det må jo være forklaringen. I hvert fall er det sånn, og sånn er det også i Norge, i Danmark har fertiliteten ligget under vedlikeholdsnivået siden 1970. De kommer senere i gang, og de erkjenner feiltagelsen hurtigere. Ultimativt ender de nordiske landene enten med å være folketomme, eller så skal man til å lære og handle etter prinsippet at gidder vi ikke å produsere fremtidens nordmenn selv så må vi importere dem. Og det gjør vi under store hyl og skrik. Hvis vi ikke her i Norden hadde importert mennesker de siste tretti årene hadde vi hatt en fallende

befolkning. Og det tror jeg ikke vi får lov til, så jeg tror innvandring er kommet for å bli med mindre nordiske kvinner tar seg sammen.

Det som skjer i disse ti årene er jo at det kommer ganske visst noen flere nye unger i skolene, men unge nyutdannede mennesker dem blir det færre og færre av, og så kan vi få rutte med de gamle eller de halvgamle fra de store årganger fra førtiårene, vel nok de fineste årgangene som er produsert her i landene, som nu står å tripper for å gå til pensjon. Derfor får alle de som skal ha friskt personale, herunder Det Norske Forsvaret, seg noen store rekrutteringsproblem. Det blir virkelig barskt, og vil igjen betyde, at man skal lære å holde hus med de mennesker man har. Det vil si man skal gå over fra å legge hovedvekten på rekruttering til å holde på dem man har. Det betyr også at man skal gå fra det personalintensive til det automatiserte. Det er rimelig forutsigelig. Det er deilig når man har den slags prognoser, men det er jo unntaket.

Wildcard
Definisjonen på et wildcard er, at det skal være en begivenhet som er rimelig usannsynlig men meget rig på konsekvenser, hvis den skulle bli realisert.

Megatrends – et utvalg
Megatrender kan defineres som hovedtendenser som har en gyldighet rimelig langt inn i fremtiden. Jeg har tatt med noen eksempler for å illustrere hvordan man tenker:

Utviklingens akselererende hastighet
Det kan være det man kaller utviklingsakselererende hastighet. Det er en vanskelig størrelse fordi vi har ikke noe objektivt mål for hvor hurtig utviklingen kjører. Men vi vet at vi lever i informasjonssamfunn som sørger for at nye ideer transmitteres jorden rundt og gir alle mulige andre mennesker nye ideer osv. Det er en av de største utfordringer for oss alle. Gamle Alvin Toffler, en av de første berømte fremtidsforskere, skapte begrepet ”future shock”, for å parallellisere til ”culture shock”, man kan bli paralysert når man blir omplantet til en annen kultur. Utviklingsakselererende hastighet betyr at selv om man ikke flytter så blir man omplantet i en ny kultur fordi alle ting forandrer seg. Og hvis man ikke forandrer seg blir man kjørt akterut. Kanskje er den beste illustrasjon på den situasjon vi lever i nu om dagen, den følelse man kan få når man sitter i tog som står stille på perrongen. Når så toget ved siden av kjører, oppleves det som om man selv kjører baklengs. Altså at man godt vet at dersom man ikke omstiller seg like hurtig som alle de andre, så har man et problem, eller så blir man kjørt på museum eller lignende. Det er en av de ting der følger af udviklingens akselerende hastighet: omstilling og evig omstilling eller ut!

Det er med her kun som et eksempel, men for å gå tilbake til punktet utviklingens akselererende hastighet så tror jeg at det belyser den utfordring det ligger i at når utviklingshastighet betyr at der ikke er noen fasit ut i fremtiden, og det er det ikke, og så er planlegning håbløst og hva kan man så? Enten kan man si: ”Det var nok ergerlig”, eller også kan man følge managementkonsulenterne. De er selvfølgelig fulle av varmluft, det vet jeg godt, og jeg skal også passe meg på her for å kaste med stein. Men jeg synes nok disse managementkonsulentene har fat i noget rigtigt, når de sier at når der ikke er noen fasit i fremtiden så er det nest beste å ha en ide om hvor man kunne tenke seg å komme hen.

Nu er managementkonsulentene litt religiøse, så de bruker religiøse termer. Når de sier man skal ha en ide om hvor man kunne tenke seg å komme, så sier de man skal ha en *visjon*. Det trodde jeg var forbeholdt profetene, men vi skal alle sammen ha det. Forutsetningen for at man skal kunne ha en visjon, sier de, det er at man først skal tenke seg – og her kommer det religiøse inn

igjen – sin *misjon*. Og med misjon mener jeg man skal ha tenkt igjennom sin kjernekompetanse og kjerneverdier. Av og til skal man oven i kjøpet tenke igjennom spørsmålet: ”Hva vil skje hvis vi ikke var her”. Det kan være riktig grimt å tenke igjennom fordi man riktig hyppig må konstatere at forskjellen ville ikke være til å merke. Alt dette følger av utviklingens akselererende hastighet. Jeg mener at hvis det er et sted man har bruk for å tenke i misjon og visjon så er det innen forsvaret, hvor man i *den* grad lever med en usikker fremtid, uviss fremtid, hvor det er vanskelig å planlegge, og man derfor er nødt til å ha en visjon: Vi tror og vi vil prøve å komme dit. Denne visjonen skal selvfølgelig bygge på en bevisst antagelse om hvad det er for en fremtid dette forsvaret skal fungere innenfor. I stedet for å kjøre med bakspeil blir man da nødt til å tenke litt i fremtiden. Derfor kan man fortsatt bruke megatrends, men man kan også skritte videre og operere med scenarier.

Immaterialisering

Immaterialiseringen har med rikdom å gjøre. Nu snakker vi om den rike del av verden. Hvis man går inn og ser på det økonomiske forbruket i den rike del av verden, vil man se at når vi nu blir enda rikere, og nordmenn er jo etter hvert blitt uforskammet meget rikere som følge av den urimelige mengde olje de er i besittelse av, så vil man se i forbruksstrukturen at det materielle forbruk stiger vesentlig langsommere enn det immaterielle fordi det materielle forbruk langt på vei er dekket. Det er grense for hvor meget vi kan spise, det er grenser hvor mange biler vi kan kjøre hver gang. Men der er ikke grenser for hvor mye underholdning, service og turisme vi kan bruke. Derfor har vi et forbruk som er under immaterialisering, som man ser tendenser til.

Digitalisering

Dette skal jeg ikke si så mye om utover at det selvfølgelig er en ekstrem sentral faktor når man snakker luftmakt. Man kan tenke seg fremtidens luftvåpen er en person med en joystick som sitter et eller annet sted. Kanskje er det et ekte wildcard. For noen tid siden leste jeg at nu hadde amerikanerne presisjonsbombet al-Qaida medlemmer i Jemen. Da tenkte jeg at kanskje er fremtidens luftkrig og luftmakt en slik joystickmann som sitter et eller annet sted. De får kanskje det pilotløse luftvåpen. Innenfor SAS taler man om fremtidens flybesetning som består av en pilot og en hund. Piloten er med for å fore hunden, og hunden er med for å bite piloten dersom han skulle finne på å pille på instrumentene. Alt sammen er en følge av digitaliseringen, som betyr at man kan kommunisere med hvem som helst, når som helst, hvor som helst i farger, 3D og med lukt og smak. Det kommer alt sammen, hvilket betyr at den geografiske dimensjon blir mindre og mindre relevant. Man kan godt si at i fremtiden vil det ikke være noe handicap å bo i Norge, det er like jammerlig som å bo alle andre steder i det omfang man opererer med digitaliserbare former.

Globalisering

Globaliseringen kjenner dere alle. Et av dens mest grunnleggende trekk er at kloden er på skrump. Informasjonsmessig vil det for all tid være mulig å vite hva som foregår der ute. Men det er også globalisering fysisk ved at folk flytter seg og møter opp ”in person”, hvilket igjen vil ha store konsekvenser for holdningsutviklingen. Dansker, og ikke minst nordmenn, presenteres for noe som er annerledes enn det de er vant til. Da er det to muligheter, enten blir man

- fundamentalist, eller
- relativist

Enten føler man at det fremmede er så truende at man går i forsvarstilling og sier at ingen skal komme å si at ikke min kultur er den beste. Da er man fundamentalist. Eller så går man over i den andre grøften, den multikulturelle grøft, og sier at alt er minst like godt som alt mulig annet, som er et bevisst tidsfenomen. Jeg synes ingen av disse alternativene er særlig elskverdig og det er nok en utfordring til et samfunn at lære at balansere mellem disse ekstremer.

Kommersialisering
Vi har kommersialiseringen og det gjøres mer og mer markedsorientering. Siden murens fald i Berlin er sosialismen død – der findes en dansk filosof som stadig vekk påstår at sosialismen er ikke død, den er bare ute og brekker seg, men det er nok en alvorlig omgang kan vi si. Siden har vi levd i et samfunn hvor nogen mener vi har nådd historiens høyeste stadium: Det markedsorienterte demokrati. Så kan vi komme lenger enn der markedet hersker?

Vitensamfunn
Det sier seg selv, det beste mål på et samfunns grad av vitensamfunn det er kiloprisen på dens eksport, jo høyere kilopris jo mer viteninnhold. Det kan være et operasjonelt mål for om man befinder sig i et videnssamfund. Med Norges store oljeeksport er det jo noget der trækker ned i forhold til at være et videnssamfund.

Scenarier
Jeg er særlig glad for å tale scenarier her, fordi de første som begynte å bruke scenarier var det amerikanske luftvåpen under annen verdenskrig. Derfor er det er en gammel tradisjon innen luftforsvaret å tenke i scenarier.

Alternative bilder av mulighetsrommet
Her mener man alternative bilder av hvordan virkeligheten *kunne* se ut, altså underforstått at når man presenterer 3 eller 4 scenarier så er det ikke ”multiple choice” der man skal gjette hvilket alternativ som er det riktige, men et forsøk på å avtegne det rom utviklingen må finne sted innenfor. Det kan man gjøre på mange forskjellige måter, for eksempel kan man gjøre det rent intuitivt.

Systematisk utvalg
Man også kan sette seg ned og si: ”Hva er det for dimensjoner vi mener er de mest usikre og de mest viktige?” Hvis det norske Luftforsvaret skulle gjennomføre det vi kaller en scenarie prosess vil vi starte med å snakke med Det norske Luftfforvaret og spørre: ”Hva er det som er viktigst for dere og som er meget usikkert?” Så vil man bruke disse elementene som blokker til å kreere scenarier for det norske Luftforsvaret.

Fremtiden – de mange muligheter
Hva er det for noen typiske samfunn vi er på vei inn i? Uten å gå i detaljer vil jeg bare antyde tankegangen at man kan legge vekt på:

- Informationssamfund
- Kommunikationssamfund
- Deadlinesamfund
- Freelancesamfund
- Til- og fravalgssamfund

Dream Society
Vi er meget opptatt av å si at vi lever i ”dream society” eller på vei dit, hvor den rike delen av verden er så bortskjemt at mange ting virker gitt. Vi er etter hvert ikke mere imponert over å overleve en flytur fra Trondheim til København, det tar vi for gitt. Det var man imponert av en gang. Så derfor legger man mere vekt på opplevelsen, på historien. For igjen å trekke temaet tilbake til luftforsvaret, så skal luftforsvaret, når de har disse rekruteringsproblemene som de får i fremtiden, så skal de tenke på hva er det for en historie vi forteller. Den skal gjerne være lekker

og attraktiv, da kan det godt hende man får de rekruttene som man ikke kan få ellers. Det er ikke nok å si at lønnen er hederlig, det skal også være noe med at man kan være stolt og synes at det er en god historie å være i luftforsvaret. Hva kommer etter ”dream society”?

Bio-IT samfunn
Det neste samfunn blir nok det hvor man lar biologi og informasjonsteknologi smelte sammen. Man har allerede laget eksperimenter hvor en chip og en celle interagerer. Jeg gleder meg til det kan realiseres, for da kan jeg få operert inn den intelligensforsterker jeg lenge har hatt bruk for. Det er noe vi ikke liker å tenke på nu, men det kommer. Alt dette her har jo i lang tid vært forutsett for den rike delen av verden. En betydelig del av verden er ikke det. Så kan man begynne å snakke om hvilke system som vil prege globalt. Der vil jeg gi to eksempler. Denne diskusjon man kan hekte opp på to navn:

Huntington sier: *Kulturforskjeller er grundlaget for fremtidens konflikter.* I lyset av den 11 september og al-Qaida kan man fristes til å si at han er blitt bekreftet. Omvendt antyder den amerikanske sosiolog **Francis Fukuyama**: *Økonomi utvisker fremtidens kulturforskeller når vi blir alle noenlunne rike.*

Så kan man spørre hvilket av utsagnene som er riktig. Her vil jeg illustrere det med oversikter som er blevet laget af Ronald Inglehart de siste tyve år over en lang rekke land hvor man har spurt om folks holdninger. Det man kan se er at de kulturelle klynger eksisterer. Gjennomsnittet i en lang rekke land ligger på to dimensjoner. Den ene: ”Survival versus self expression” grupperer svarene i en gruppe som er mest opptatt av materielle behov og en der man er opptatt av å realisere seg selv. Den andre dimensjonen kjører på at er man tradisjonell går man inn for ”kinder, kirche, küche”, man går inn for religion og tradisjoner, eller i den andre enden er man sekulære, man er ateist og lignende.
Man kan se at de land som har vært med i denne undersøkelsen plasserer seg pent i klynger. Den engelstalende del av verden, det protestantiske Europa, Latinamerika. Kommunismen som har hatt sin effekt: De gamle kommunistlandene er opptatt av å overleve, men de er meget ateistiske. Det kan brukes til å gi Huntington rett, landene plasserer seg i noen kulturelle klynger, og man kan forestille seg at det var basis for fremtidens konflikter. Det pussige er bare at landene plasserer seg på en slik måte at der er altså en rimelig klar sammenheng med økonomi. Men denne grupperingen av land falle også mye sammen med økonomi, altså fattige og rike land.

Man kan bruke dette til å argumentere at ettersom fattige land blir rike så rykker de kanskje holdningsmessig opp blant de ugudelige og selvopptatte som vi er her i Norden. Så kan velge om man vil tro på den ene eller den andre. Personlig er jeg optimist og tror på Fukuyama mer enn på Huntington. Men der er et problem som det alltid er i fremtidsforskning: Timingen, hvor hurtig går det? Det ville jo være rart å vite.

Konflikter

En helbredelig sykdom?
En annen måte å tenke på, som jeg nettopp har støtt på og som jeg er dypt fasinert av, fremgår av en mann som heter Phillip Bobbitt. Han har vært rådgiver for diverse amerikanske presidenter og

har skrevet boken ”The Shield of the Killers”. Når vi ser på holdningene til krig er det to skoler: Den ene sier krig er et sykdomstrekk. Hvis vi bare blir gode nok her i verden så er det slutt på krig. Hele FN-systemet bygger på dette, Folkeforbundet trodde på det, Wilson trodde på det, Roosewelt trodde på det. Mange hadde den holdning at krig er et sykdomstegn som kan helbredes.

Det normale?
Så er det dem som sier at krig ligner konflikt, og konflikt er en uungåelig del av det menneskelige samfunn. Bobbit hører så helt klart til den siste skole, som sier at konflikter finnes og de er der. Det er konflikter som driver systemutvikling.

Teknologi og statsdannelse (etter Bobbitt)

Skytevåpen knuste det føydale systemet
Ved siden av konflikter ligger utvikling av militærteknologien. For å gjøre det meget enkelt sier Bobbitt at skytevåpen knuste det føydale systemet. I det føydale systemet var enhetene for små, og når det kom skytevåpen som kanoner blir krig dyrere, det skal mer penger til. Da er man nødt til å være store og ha et skattesystem. Det føydale system afløses af det dynastiske system, der dækker et større område, der kan levere de nødvendige ressurser, som den nye teknologi kræver. Jeg er glad for å kunne si at den egentlige årsak til at vi blir beskattet den sitter i denne sal. Det er militærteknologien som er skyld i at vi har fått et skattesystem!

Jernbaner knuste det dynastiske systemet
Så får vi teknologien jernbanene som betyr at man kan lage masskrig. Da er det dynastiske system, som etterfølger det føydale, ikke godt nok. Den demokratiske nationalstat bliver nødvendigt til et etablere den nødvendige massetilslutning.

Computere, marked og migrasjon knuser stater /nasjoner
Nå har vi altså fått computere, markedsorientering og folkevandringer, som har gjort at nasjonalstaten er blitt mere og mere permeabel. Man kan ikke stenge igjen, ikke engang Norge selv om dere gjør hva dere kan.

Markedsstaten – varianter (etter Bobitt)

Foreløpig resultat: Markedsstat
Disse postindustrielle stater har dermed endt i noe som Bobbitt kaller ”the market state” eller markedsstater. Det er en regionalisering som i stigende grad er løsrevet fra det etniske, som var bærende for nasjonsdannelsen.

Vi har kjempet i Danmark og andre steder for oppbyggingen av en nasjon. Norge kom sent med i nasjonsbyggingen, men dere arbeider stadig vekk med det såvidt jeg har forstått? Permeabilitet betyr at nu går vi over i ”the market state”. Ifølge Bobbitt’s betraktninger, og det skal være det siste jeg sier for nå føler jeg jorden brenner litt under meg, er der stadig konflikter, de holder ikke opp, og han har tre scenariebilder for hvordan fremtidens konflikter kan være alt etter hvilken type ”market state” vi har:

1. Meadow (engen eller skulle vi sige sæteren): Blir det den *angelsaksiske* type, hvor man legger vekt på fleksibilitet, kulturell diversitet og er oponionsstyrt, blir det noe à la det pilotløse flyet fordi i det systemet tåler man ikke menneskelige tap. Man opererer altså fortsatt med krig, men med korte større kriger.

2. Garden (haven): Det kan godt hende at det japanske, langt mere innadvendte, kulturelt eksklusive, introspektive, samfunn lykkes. Der har Bobbitt en lengre argumentasjon hvordan det kan føre til en proliferasjon av nukleære og post-nukleære våben.
3. Park: Eller den tyske modell, som leder an til en tilbakegang til det gamle system, kan vinne fram med veferdsstat og regulering innenfor stor og tunge handelsblokker, og hva det kan føre til av konflikter.

Til slutt må en mutation nevnes, den ’virtuelle’ stat som al-Qaida o.l. Den gir rom for mange fremtidscenarier.

Folkerett og etikk - noen utfordringer i dagens internasjonale situasjon

Gunnar Stålsett

Det hører til mitt ansvar som biskop å ha tilsyn med den kirkelige betjeningen av Forsvaret. Kirkens nærvær i Forsvaret skal, ut over den pastorale omsorg og åndelige veiledning, bidra til å styrke den etiske bevissthet og kompetanse i hele Forsvaret. Jeg er glad for den nye satsing i feltprestkorpset på å høyne kompetansenivået når det gjelder militær etikk. Og jeg ser med glede på de plass Forsvarssjefen gir til refleksjon og debatt i dagens forsvar om grunnleggende etiske verdier

Det er knapt noe sted etikkens betydning er større enn der hvor makt utøves, og der liv og menneskelige verdier står på spill. I spørsmål om krig og fred står etikken på mange måte sin prøve. Kan den ikke bidra der, hvilken betydning kan den da ha? Derfor er jeg og mine gode medarbeidere i Feltprestkorpset glad for dette ansvaret, og tar det svært alvorlig.

Både Den norske kirkes bispemøte og Komiteen for internasjonale spørsmål i Den norske kirke har inntatt radikalt kritiske holdninger til den rådende trend i norsk sikkerhets- og utenriks-politikk når det gjelder kampen mot internasjonal terrorisme. Kirkene i vårt land fremstår i dag med en samlet holdning mot de amerikanske planer om krig mot Irak. Disse holdninger er i god overensstemmelse med folkemeningen slik den kommer til uttrykk i gjentatte meningsmålinger. Ikke minst i dag, hvor vi opplever dramatiske og i et historisk perspektiv lynraske endringer på den internasjonale arenaen, er det viktige å føre en kontinuerlig og åpen dialog der forsvaret er en del av det demokratiske samfunn, og fungerer på samfunnets etiske premisser.

Norge er i krig Men vi merker det knapt. Krigens anonymisering er noe nytt og paradoksalt i det moderne kommunikasjonssamfunn. Vi ser en voksende tendens til demokratiets apati og maktesløshet i det globaliserte samfunn både når det gjelder markedskreftene og krigføring. I vårt eget land har regjeringens beslutninger om å delta i krigen i Afghanistan og overveielser om deltakelse i en eventuell kommende krig mot Irak, skjedd uten nevneverdig offentlig debatt. Heller ikke de politiske partier har vist særlig interesse for en bred diskusjon. Og det til tross for – eller kanskje det er fordi – et stort flertall blant velgerne er skeptiske til Norge som en global krigsmakt.

Også omstillingen fra et nasjonalt territorialforsvar til et mobilt forsvar i offensive operasjoner langt utenfor våre grenser har skjedd i løpet av få år, og med forbausende lite debatt. Kanskje er det uproblematisk? Eller har det skjedd så fort at vi ikke har rukket å få med oss hva som har skjedd? Eller er det av politisk interesse å begrense innsyn og dermed debatt om disse viktige endringer?

Jeg har med interesse merket med at Forsvarssjefen har etterlyst mer debatt om vårt inter-nasjonale militære engasjement . Fra mine mange besøk i militære forlegninger landet rundet, sitter jeg med et inntrykk av at forsvarets folk ikke ønsker en dekobling av forsvar og demokrati. De som har sitt daglige virke i forsvaret og som allerede har eller kan komme til å få en langt større nærkontakt med denne krigens realiteter enn folk flest, kan imidlertid ikke la utviklingen gå upåaktet hen. Det samme gjelder deres familier. Det er i hele samfunnets interesse at myndig-hetene aktivt sørger for presis informasjon om alle sider ved vår sikkerhets- og forsvarspolitikk , og gir tydelige svar. Hva er det våre soldater og offiserer nå skal gjøre? Med hvilke mål? Med hvilken begrunnelse? På hvilke vilkår? Hva betyr det for oss som folk at vi er i krig? Hva er våre folkerettslige forpliktelser i en krig der vi er "hjelpemannskap"?

Jeg tror det er mer intern debatt i forsvaret om den aktuelle forsvars- og utenrikspolitikk på disse områder – enn det er i samfunnet for øvrig. Det hindrer ikke at de som blir beordret til internasjonal tjeneste i farefulle og til dels uklart definerte oppdrag adlyder ordre og opptrer profesjonelt og lojalt. Og de og deres familier fortjener all støtte. Det gjelder også en klar vilje i feltprestkorpset til å følge soldatene der de blir beordret.

Den 21. og 22. november ble et historisk NATO-møte avholdt i Praha. Alliansen besluttet å invitere 7 nye medlemsland. Tidligere fiender blir dermed våre nære allierte. Og samarbeidet med den kalde krigens fiende nr 1, Russland, er nå på et så fortrolig nivå at en skulle tro det var gått århundrer ikke bare et drøyt tiår siden murens fall. Dette er det stor grunn til å glede seg over. Samtidig ble den nye strategien for alliansen videreutviklet og framskyndet. Vi ser i dag et mer offensivt og ekspansivt NATO, - det nye NATO - som både vil ha evne og vilje til å operere langt utenfor NATO-landenes egne territorier.

Det er paradoksalt at etter at den kalde krigen er slutt opplever verden igjen en kraftig militær opprustning. I en tid da drømmen om at verdens ressurser skulle brukes i kampen mot verdens fattigdom vokser militærbudsjettene dramatisk, og den humanitære innsats reduseres tilsvarende. FNs tusenårsmål om å halvere antallet fattige i verden innen 2015, vil med de tendenser vi ser i dag ikke kunne oppnås før om 100 år! Det er ikke irrelevant å minne om at AIDS katastrofen som er i ferd med å knekke et helt kontinent – Afrika – er av Sikkerhetsrådet og FNs Generalforsamling definert som et sikkerhetsproblem. Bare i Afrika dør der hver dag 7000 mennesker av denne sykdommen som sammen med fattigdommen rammer Afrika med større styrke enn slaveri og kolonitid til sammen. Med den dødsrate som vi ser i dag, vil det i 2015 være flere som er døde av AIDS, enn de som døde under hele 2. verdenskrig. Den gang ble Europa hjulpet av en Marshall plan. Kofi Annans appell om en "war-chest on AIDS" er kommet helt i skyggen av kampen mot internasjonal terrorisme.

Washington Post meldte forleden at en krig for å knekke Saddam Husseins Irak vil koste 1500 milliarder dollar. Så kommer det som må investeres i å bygge en ny nasjon etter Saddam Husseins terror regime. Ser vi til Afghanistan vet vi at forholdet mellom investering i krigføring og i humanitær innsats er som ti til en. Det siste året har de amerikanske militæroperasjonene i Afghanistan ifølge Congressional Budget Office kostet 10,2 milliarder dollar. Det er 10 ganger så mye som det totale beløpet brukt på humanitær hjelp.

USAs tidligere svært så omstridte forslag om et rakettskjold har fått bred tilslutning, til tross for at det vil være i strid med ABM-avtalen, svært usikkert i bruk, og i alle tilfeller ikke egnet i kampen mot internasjonal terrorisme, slik vi så den 11. september 2001. I forholdet til Irak har Sikkerhetsrådets vedtak i første omgang hindret et ensidig militært angrep. Men situasjonen er ikke løst. Det skal ikke mye uoverensstemmelser til før angrepet likevel kan være et faktum— med uante konsekvenser for den spente regionen og for arbeidet for konfliktløsning med fredelige midler verden i øvrig. Med den massive styrkeoppbyggingen i området kan vi få en irreversibel situasjon der det vil verre et politisk og prestisjemessig nederlag for USA å trekke seg tilbake. Med en stadig skjerpet krigsretorikk fra president Bush og statsminister Tory Blair og med en manglende vilje fra Saddam Hussein til aktivt å bidra til å løse konflikten på fredelig måte kan krig mot Irak snart være en realitet. Det er all grunn til å kreve en avklaring allerede nå fra våre politiske myndigheter om Norges holdning. Den dagen USA går til angrep er det for sent. Så mye er klart at en krig mot Irak vil være en krig mot folkeviljen og en krig i strid med folkeretten. FNs charter hjemler ikke en angrepskrig under slike forhold som Irak konflikten representerer. Dette skal jeg komme tilbake til.

USAs nye doktrine, noen kaller den Bush-doktrinen, legger til grunn USAs rett til å forsvare seg og sine interesser overalt på kloden, når som helst. Forestillingen om "*proactive* use of force with *protective* aims", og om "*preemptive* strike", eller preventive angrep, forkjøpsangrep, er dermed blitt en påtrengende etisk og folkerettslig problemstilling. Er angrep det beste forsvar?

Dagens situasjon

Hva kjennetegner så dagens situasjon? To historiske datoer får raskt fram i bevisstheten hvilke dramatiske og raske endringer i verdenssamfunnet som preger dagens bilde. For det første den 13. november 1989. Murens fall. Den kalde krigens slutt. En omveltning som kom raskere og ble mer fundamental enn noen hadde forutsagt.

Den kalde krigen var paradoksalt nok preget av en hva vi kunne kalle en stabil høyspenning. Terrorbalansen var i all sin grufulle realitet et forutsigbart og derfor relativt stabilt system. Dette ble nå etterfulgt av en langt mer optimistisk, men også mer ustabil periode. Slutten av den kalde krigen åpnet muligheter for fredelig utvikling og samarbeid på tvers av gamle ideologiske skillelinjer. Tidligere konflikter på de fleste kontinenter kunne nå endelig bilegges. Fredsprosesser vant fram i El Salvador, Guatemala, på Øst-Timor… Slutten på den kalde krigen åpnet også arenaen for et sterkere og mer aktivt FN; et FN som nå uhindret av kaldkrigs-dynamikk i større grad kunne spille den rolle det var tiltenkt.

Samtidig var det nye verdensbildet uavklart. Hvem ville nå sette agendaen? Hvem ville være førende? Hvem sine interesser skulle nå ha forrang i den internasjonale kappestrid om ressurser og fortjenester? To kandidater til et nytt verdensbilde ble lansert: Den nordamerikanske historikeren F. Fukuyama så som kjent for seg intet mindre enn at historiens ende var kommet. Fra nå av ville verden utelukkende preges av det liberale demokrati og markedsøkonomien, underforstått den USA-ledete globaliseringen. En annen historiker, Samuel P. Huntingtons lanserte sin tese om sivilisasjonenes sammenstøt. Den var langt mer pessimistisk. Den kalde krigens bipolare ideologiske konflikt vil erstattes av multipolare verdikonflikter, ikke minst fyrt opp under av religionsforskjeller, hevdet han som kjent.

Ser vi tilbake på nittitallet kan en vel finne spor av begge disse tendenser. Den USA-ledete, nyliberale globaliseringen har fortsatt sin frammarsj over hele kloden. Samtidig har den blitt møtt med motstand, først og fremst fra bredt sammensatte, demokratiske allianser, men tidvis også fra fundamentalistiske og voldelige grupper. Det kan virke paradoksalt at det første tiåret etter den kalde krigen innebar -- ikke mindre, men -- *mer* bruk av militærmakt på den internasjonale arenaen. Nittitallet var preget av mange interne og blodige konflikter. Vi fikk etnisk rensning på Balkan og i Rwanda. Dette førte til en omfattende debatt omkring, og iverksettelse av, såkalte humanitære intervensjoner. Fra Nord-Irak via Somalia til Bosnia ble de humanitære argumentene for bruk av militærmakt anført med vekslende troverdighet og suksess. Dessuten så vi at de ledende maktene i verdenssamfunnet beveget seg fra å respektere nødvendigheten av FN-godkjenning for bruk av militærmakt, som under Golfkrigen i 1990, til i økende grad å bruke makt uten slik godkjenning. Dette var jo som vi vet tilfellet ved NATOs bombing av Serbia og Montenegro, der også Norge var med. Fører vi denne linjen fram til dagens situasjon, der USA forbeholder seg retten til også unilateralt å gå til angrep på Irak om nødvendig, ser vi en tendens som har stilt etikk og folkerett overfor store oppgaver og utfordringer. Ser vi her folkeretten under utvikling – eller under press?

Den andre datoen som preger vår situasjon i dag er selvsagt den 11. september 2001.Terrorangrepene i New York og Washington forandret mye på den internasjonale arenaen.

Men ved nærmere ettertanke kanskje ikke så mye som ofte blir hevdet. Tendensene på nittitallet i retning av økt hegemoni og mer hyppig bruk av militærmakt bare forsterkes i og med den 11. september. En viktig forskjell mellom situasjonen før og etter den 11. september var imidlertid knyttet til bruken av begrepet ’krig’ i den offentlig politiske diskurs.

På nittitallet unngikk de toneangivende maktene i det internasjonale samfunn for en stor del å snakke om krig -- til tross for åpenbare krigsaksjoner og kamphandlinger på mange fronter. Man omskrev heller: ’Kampanje’, humanitære intervensjoner, avgrensede ’operasjoner’, fredsopprettende og fredsbevarende tiltak, og så videre. Diskusjonen om hvorvidt norsk deltakelse i NATOs krig mot Serbia var å betrakte som krigstjeneste var et symptomatisk uttrykk for denne situasjonen. Etter den 11. september derimot, ble det talt om krig fra første stund. Og det med store bokstaver. Angrepene ble tolket som en krigserklæring mot USA, og mot den vestlige sivilisasjonen som sådan. USAs president talte alvorlig om en krig som kom til å bli ’helt annerledes’, uten synlig fiende, og nærmest uten klare grenser, verken i rom eller tid. Dette ville ta lang tid og koste mye. Som professoren i internasjonale forhold ved Boston University Andrew J. Bacevich har uttalt det: "Before September 11, the conventional wisdom had been that globalization was fast making war obsolete; after September 11, the conventional wisdom was that globalization was making war an all but permanent and inescapable part of life in the twenty-first century." (Bacevich 2002, 225)

Det internasjonale samfunn ble med på denne tenkemåten. Selvforsvarsretten ble påberopt og anerkjent av et enstemmig Sikkerhetsråd allerede den 12. september, med henvisning til FN-paktens artikkel 51. Samme dag ble, for første gang, solidaritetsprinsippet – en for alle , alle for en -- i NATO-erklæringens artikkel 5 aktivert. Terroranslagene mot USA var å regne som anslag mot alliansen som helhet. Stikk i strid med terroristenes antatte hensikt ble USAs lederrolle på den internasjonale arenaen ytterligere styrket. En ny, bred internasjonal allianse mot terror ble på kort tid bygget. Dette var positivt: ett uttrykk for den angrepne parts vilje til å søke samarbeid for å løse problemene, og andre nasjoners vilje til å støtte den angrepne part mot angriperne. Samtidig meldte det seg raskt et problem: Praktisk talt hele verdenssamfunnet ble satt i krigsberedskap. Men fienden var til dels ukjent og for det meste usynlig. Dette er den fundamentale utfordringen for en vurdering av etiske og folkerettslige sider ved dagens situasjon.

Vi har i verdenssamfunnet fått en økt vilje til og aksept for bruk av militær makt, samtidig som det stort sett er vagt og upresist hvem denne maktbruken kan rettes mot. Statsminister Kjell Magne Bondevik gjorde det i et avisinnlegg den 2. oktober i høst helt klart at Norge er i krig. Men ikke mot Afghanistan eller noe annet land. Norge er i krig mot internasjonal terrorisme, slo statsministeren fast. Problemet er da å definere fienden.

Terrorist begrepet brukes lett for å legitimere statsterror mot hvilken som helst frigjøringsbevegelse. Hvem som er ’terrorist’ defineres av den makt som er utfordret. Etisk og folkerettslig er en slik utydelighet ikke mulig å leve med. Hadde denne tenkning vært dominerende for noen år siden, ville kampen mot apartheid kunne blitt rammet av samme terrorisme kritikk. I dag er det slik at altfor mange uskyldige kan rammes av en slik vaghet. Når vi hører på nyhetene nesten daglig at så og så mange har blitt arrestert av politiet, i Storbritannia, Italia eller USA, for å tilhøre en ytterliggående islamsk gruppe, er det grunn til å lytte kritisk. Det er ikke forbudt å være religiøs, heller ikke fundamentalist. Det er ikke forbudt å ønske seg et annet samfunn. Heller ikke å organisere seg politiske med det formål å fremme et slikt samfunn. Tvert imot dreier dette seg om grunnleggende demokratiske rettigheter i ethvert fredelig samfunn: tros- og samvittighetsfrihet, ytrings- og organisasjonsfrihet. Og enhver er og blir uskyldig til det motsatte er bevist.

Nå er det ikke lett å si hva som er verst, å unnlate å kalle det krig når det rent faktisk er det som foregår, eller å kalle noe krig som ikke svarer til hva en til nå har forbundet med begrepet. Begge deler reiser viktige etiske og folkerettslige spørsmål.

Folkerett og etikk

La meg her skyte inn noen refleksjoner om forholdet mellom folkerett og etikk, før jeg går nærmere inn på noen av de konkrete utfordringene vi står overfor. Det er en viktig og nødvendig forskjell på etikk og jus, eller etikk og rett. Sikkert er det at jusen langt på vei må bygge på etikken. Like sikkert er det at etikken alltid vil være mer enn det som kan nedfelles i lover og regler. Det vil med andre ord si at om noe er rettslig legitimt, betyr det ikke nødvendigvis at det er moralsk rett. Etikken må fundere gjeldende rett, men også kontinuerlig underlegge den en kritisk vurdering.

Dette er særlig viktig når det gjelder lov og rett på den internasjonale arenaen, altså når det gjelder folkeretten. Utfordringene her er flere. For det første er det på grunn av det globale mangfold av kulturer og verdisystemer ikke gitt at det eksisterer en felles, allmenn rettsfølelse, altså en slags global folkelig intuisjon om hva som er rett og galt, som lovgivningen kan bygge på. Enighet om avtaletekster og juridiske formuleringer er avhengig av langsiktig og møysommelig arbeid i ofte tungrodde diplomatiske fora.

Samtidig er slike internasjonale avtaler og konvensjoner uttrykk for de reelle politiske maktforhold, og de nødvendige kompromisser, mer enn en solid forankring i hva som anses for å være det etiske optimale. Dernest er det som kjent fortsatt slik at det ikke finnes noen klar overnasjonal autoritet i verdenssamfunnet, med jurisdiksjon som kan håndheves på like vilkår overfor alle på kloden.

Opprettelsen av FN's International Criminal Court er et skritt i riktig retning. Den norske regjering – og spesielt utenriksminister Jan Petersen - fortjener ros for sin vilje til å kjempe for domstolens integritet mot USAs forsøk på å undergrave domstolens betydning. Vi er i en situasjon der folkeretten er i bevegelse. Det er grunn til å hevde at den står i klar fare for å svekkes. Samtidig krever nye globale realiteter at den videreutvikles. Å ta stilling til hva som er en svekkelse og hva som er en videreutvikling er ikke utelukkende et politisk eller juridisk spørsmål. Det dreier seg til syvende sist om etikk.

I forbindelse med Irak-krisen har dette spørsmålet blitt aktuelt. Utenriksminister Jan Petersen har stått klart på at Norges holdning alltid ville være trygt innenfor folkeretten i dette spørsmålet. Men det vil i praksis si innenfor rammen av den fortolkning og applisering av FN-pakten som Sikkerhetsrådet, og det vil nærmere bestemt si de fem vetolandene, kan enes om. Men hva om disse landene beslutter å gå til angrepskrig med en heller tvilsom begrunnelse? Vi har ingen garanti for at Sikkerhetsrådet opptrer moralsk. Like urealistisk er det å forvente at det skal opptre konsekvent. Så lenge Russland er vetomakt, vil ikke Tsjetsjenia i realiteten komme på Sikkerhetsrådets bord, for å nevne ett eksempel.

Så i dagens situasjon står vi overfor et dilemma: Vi må forsvare folkeretten, og samtidig se dens klare begrensninger, bygget på maktallianser og kompromisser som den også er. Folkeretten må til enhver tid vurderes ut fra et underliggende etisk fundament, som på en og samme tid er dypere, mindre spesifikt, og mer krevende. På dette etiske nivå er en kontinuerlig kritisk og lyttende samtale mellom alle berørte parter helt nødvendig.

Utfordringer

La oss benytte anledningen til å se nærmere på de mest akutte utfordringene vi etter mitt syn står overfor. De kan knyttes til to hovedspørsmål: Er vi i krig? Og: Er angrep det beste forsvar? Er vi i krig?

Vi må få klarhet i dette: Er vi som nasjon i krig? I tilfelle, er vi i krig mot noen nasjoner, røverstater, den onde akse? Eller er vi i krig med ett - eller kanskje flere - terrornettverk? Eller er det kanskje slik at vi låner ut våre styrker til noen andre, som befinner seg i krig?

Statsministeren har i nevnte avisinnlegg bekreftet at vi etter hans oppfatning er i krig. Men i neste setning kaller han det, mer avdempet, "militære aksjoner". Hva menes egentlig? Uansett må vi kunne slå fast: Vi er i en ny tid. For dette er krig uten reell krigserklæring. Uten krigstilstand. Og det er ikke en krig om vårt nasjonale territorium. Vi står overfor et nytt og utvidet sikkerhetsbegrep. Det har mange positive sider at sikkerheten ikke lenger ensidig er knyttet til nasjon og territorier. Samtidig skaper det nye sikkerhetsbegrepet paradoksalt nok ny usikkerhet. Hva slags utfordringer er det *nå* legitimt å sette inn militærmakt mot? Skal vi krige for menneskelige verdier -- som nok kan være svært høyverdige i seg selv, men som står i fare for å undergraves i det øyeblikket de forsvares med makt? Krig for å fremme menneskerettigheter? For økonomiske verdier? Eller kanskje krig for å forsvare vår religiøse tradisjon? Jeg stiller spørsmålene med vilje skarpt på spissen, fordi jeg mener vi plikter å tenke oss svært godt om når vi utvider området for militærmaktens bruk i internasjonale relasjoner.

Jeg har allerede tidligere vært inn på at jeg er urolig for det faktum at Norges engasjement i Afghanistan, for ikke å snakke om Kirgisistan, når det kommer til stykket er lite kjent i det norske folk. En fersk undersøkelse viste at bare vel 16% av de spurte var klar over at Norge deltar i krigføring. Selv norske politikere har vist at de har relativt lav kunnskap om detaljene i det norske krigsengasjementet. Hva verre er: Det synes som om dette ikke anses for å være et stort problem. Det faktum at norske myndigheter ikke kan gi noe svar på hvor mange sivile liv som har gått tapt som en følge av antiterrorsalliansens krigføring i Afghanistan kan være en tydelig pekepinn om at det i liten grad gis rom for fundamentale etiske overveielser. En oversikt over sivile ofre er i følge de konvensjonene Norge har sluttet seg til en forutsetning for at Norge kan etterprøve lovligheten av ethvert angrep. En slik oversikt er selvsagt også en forutsetning for å vite om det viktige proporsjonalitetskriteriet for en etisk vurdering av bruk av militærmakt er overholdt.

Amnesty International er en organisasjon med høy troverdighet i menneskerettighetsspørsmål, som norske myndigheter gjerne siterer i sin kritikk av andre lands regjeringer. I forbindelse med krigføringen i Afghanistan har Amnesty International dokumentert en rekke brudd på Genevekonvensjonene som Norge har sluttet seg til. Bruddene omfatter bl.a.:

- behandling av fanger i strid med minimumsstandarder for fangebehandling
- manglende juridisk bistand til fanger under avhør
- manglende krigsfangestatus
- arrestasjoner i strid med nasjonal og internasjonal rett
- undergraving av retten til å bli ansett som uskyldig til det motsatte er bevist
- opprettelse av militærtribunaler som gir lavere rettssikkerhet for noen grupper
- manglende etterforskning av feilbombinger
- manglende kunnskap om sivile ofre

Dette er alvorlige anklager. Det faktum at norske styrker står under amerikansk kommando i Afghanistan, fritar selvsagt ikke Norge for et selvstendig ansvar for å sikre at landet ikke bryter krigens folkerett gjennom sin krigsinnsats.

Dersom vi er i krig, må krigens lover og regler gjelde. Det har Norge forpliktet seg på. Å utvikle rettsbeskyttelse for sivile så vel som stridende i krigssituasjoner har vært et viktig anliggende for oss som nasjon. Det er i den anledning grunn til å varsle bekymring når det gjelder krigsfangers rettigheter. Det har med rette vært fokusert på fangene fra krigføringen i Afghanistan som er plassert på Guantánamo-basen på Cuba. Der var det ved slutten av oktober 625 fanger fra mer enn 42 land. De befinner seg i et vakuum: De tilkjennes verken krigsfangestatus, eller de rettigheter som gjelder ifølge amerikansk lov for de som er mistenkt eller siktet for kriminelle handlinger Det kan etterlate det inntrykk at man ser på rettigheter i en krigssituasjon som noe den sterke part etter forgodtbefinnende eller veldedighet tilkjenner motparten, fra tilfelle til tilfelle. Poenget med rettigheter er at de er noe krigsfanger har, ikke noe de 'får' fra sine fangevoktere.

Jeg har tidligere ved flere anledninger tatt opp situasjonen til de titusener av fanger som sitter under helt umenneskelige forhold i overfylte fengsler i Afghanistan, preget av sult og sykdom, og uten noen form for rettslig prøvning. Hvis vi er i krig i Afghanistan, er vi folkerettslig og moralsk skyldige til å engasjere oss for disse fangers kår – enten de representerer Taliban regimet eller andre som har terrorisert det afghanske folk under skiftende stormaktsbeskyttelse. Jeg savner et tydelig engasjement også fra Det internasjonale Røde kors når det gjelder disse fangers status og fremtid.

I forbindelsen med den norske deltakelsen i krigføringen i Afghanistan vil norske soldater, som er under USAs kommando, overlevere krigsfanger enten til afghanske myndigheter eller til USA. Men begge disse nasjonene har dødsstraff. Det er derfor mot norsk lov å utlevere fanger til disse nasjonene. Det er ikke særlig betryggende at forsvarsminister Krohn Devold på direkte spørsmål om dette svarer at "Det […] i den foreliggende kontekst juridisk sett [er] en forskjell på å bistå et annet lands styrker med å ta fanger, og det å ta fanger selv." (AmnestyNytt 3/2002, 01.10.02). Dette virker som ansvarsfraskrivelse.

Videre er det grunn til bekymring når det gjelder den stadig mer utbredte bruken av regelrette likvidasjoner, som også svært ofte rammer uskyldige nærstående. Israels framferd i de palestinske områdene, med målrettede henrettelser uten lov og dom og kollektive avstraffelser er ett graverende eksempel. USAs bruk av et væpnet dronefly til å drepe en antatt Al-Qaeda-leder i ørkenen i Jemen nylig, er et annet eksempel. Mediene melder at alle som satt i bilen ble drept. Hva vet vi om dem? Var de skyldige i å være i feil bil til feil tid? Dette er av stor betydning for våre egne som engasjeres i farefulle oppdrag utenlands: Hvis ikke 'vår side' forholder seg til krigens rett, hvordan vil våre bli behandlet, i denne konflikten, i eventuelle senere konflikter? Det er viktig å slå alarm når vi ser at hardt tilkjempede rettsvern er i ferd med å undergraves.

Det samme gjelder selvfølgelig rettighetsvernet for sivile. Over hele verden innføres nå nye sikkerhets- og anti-terrorlover. Som oftest medfører dette svekket rettsvern. Den sittende regjeringens forslag til anti-terrorlovgivning og til endringer i utlendingsloven her i landet føyer seg dessverre så langt jeg kan se inn i denne trenden. Viktige internasjonale rettsprinsipper stilles i faresonen: forbudet mot diskriminering, retten til å bli ansett som uskyldig inntil det motsatte er bevist, og flyktningers rett til beskyttelse mot dødsstraff og tortur.

Det er en kjent sak at det etter den 11. september sitter tusenvis rundt om i forskjellige land i verden i varetekt, mistenkt for deltakelse i terrorisme, men uten rettmessig beskyttelse eller

saksgang. Mange av dem er uskyldige. De fleste av dem er muslimer med bakgrunn fra Nord-Afrika eller Midt-Østen. Dette er en uholdbar situasjon. Det minner for mye om den stigmatisering, diskriminering og neglisjering av grunnleggende rettsvern som er terrorismens egne kjennetegn. Som vi fra kirkelig hold har påpekt så mange ganger: Terrorisme kan bare nedkjempes med blanke våpen, det vil si med rett, respekt for menneskeverdet og demokrati. Hvis vi er med på å undergrave folkeretten i kampen mot internasjonal terrorisme er vi med å oppfylle terroristenes mål om destabilisering av rettsamfunn og demokrati. Bondevik har avvist at "det er en aktuell problemstilling å sette den militære innsatsen opp mot den humanitære." Men også dette er et spørsmål om proporsjonalitet, som må underlegges etisk vurdering.

Og i rammen av Norges viktige innsats for fred og utvikling på det afrikanske kontinent, er det åpenbart et feil signal å kutte det relativt sett beskjedne norske bidraget til fredsbevarende innsats i Afrika, for å få råd til økt innsats under USAs kommando i Afghanistan eller innen rammen av nye NATO.

Er angrep det beste forsvar?

Dermed bringes vi til slutt direkte over på det andre hovedspørsmålet: Er angrep det beste forsvar? Vi trenger en etisk tenkning rundt den nye offensive bruken av militærmakt, enten den er i FN-regi, under NATOs nye konsept med en ny alliert innsatsstyrke til bruk over hele kloden, eller representerer ensidig maktbruk fra USAs og/eller Storbritannias side. Muligheten for og eventuelt den etiske og folkerettslige legitimiteten av militære forkjøpsangrep (pre-emptive strikes), må tas opp i full bredde. Jeg har vanskelig for å se at det finnes dekning for at slike angrep kan legitimeres. Både i den etiske tradisjon rundt bruk av militærmakt som har fått – det noe misvisende – navnet rettferdig krig-tradisjonen, og i folkeretten som i stor grad springer ut av denne tradisjonen, er det et grunnprinsipp at militær maktbruk skal være begrenset til selvforsvar. FN pakten forbyr krigshandlinger unntatt i to tilfeller som er klart definert. Det gjelder militære tiltak for å opprettholde eller gjenopprette internasjonal fred og sikkerhet når tiltak uten bruk av våpenmakt vil være, eller har vist seg å være utilstrekkelige. Og i tilfellet selvforsvarshandlinger i en begrenset periode inntil Sikkerhetsrådet har truffet de tiltak som er nødvendige for å gjenopprette internasjonal fred og sikkerhet.

Et forkjøpsangrep begrunnes i noe som kan komme til å skje, hvis ikke en griper inn. Det er klart at dette kan representere et ekte etisk dilemma. Hvis vi ikke stanser en tyrann nå, kan det være for sent i morgen. Problemet er imidlertid at avgjørelsen om å gripe inn "på forhånd" de facto vil innebære å straffe noen for noe som ikke har skjedd. Det er ytterst problematisk. I tillegg vil en stå i fare for, gjennom angrepet, å utløse nettopp det en har satt seg fore å forhindre. Dette må vi legge oss på minnet når vi følger utviklingen i Irak. I møte med de dype etiske spørsmål på den internasjonale arena er det avgjørende at en ikke lar seg besnære av militær overmakt eller skremme av uhyggelige framtidsperspektiver. Det er når det virkelig stormer at viljen til å stå rotfestet i en etisk og folkerettslig tradisjon stilles på prøve.

Det kan være grunn her til å peke på at Nord Korea, med den siste tid utvikling når det gjelder atomprogrammet, de facto utgjør en større trussel for internasjonal fred og sikkerhet enn det Irak gjør. Her har USA valgt en annen vei og satset på dialog, diplomatisk press og samarbeid i regionen. Det er vel all grunn til å sammenlikne sårbarheten på den koreanske halvøy med sårbarheten i Midt Østen. Krig mot et land kan ikke sees isolert fra de omliggende land.

Folkerett og tillit

Hva må vi så legge vekt på i denne situasjonen?

For det første: Vi må forsterke arbeidet med å videreutvikle en folkerett som forholder seg til krigen mot internasjonal terrorisme. Det er for risikabelt å la denne rettssituasjon utvikle seg ad hoc og på unilaterale stormakts premisser. Folkerett kan aldri skapes med diktat. Den må forankres i en bredest mulig faglig og demokratisk konsensus. En slik "aggiornamento" – oppdatering - er en utfordring til hele det internasjonale samfunn.

For det andre: Fra den kalde krigen husker vi et plussord som langt fra har mistet sin relevans: Tillitsbyggende tiltak. En ustabil verdenssituasjon, med økt bruk av nådeløs terror på den ene siden, og massiv opprustning og mer offensive militære strategier på den andre side, gjør spørsmålet om tillit svært presserende. Samarbeid, dialog, utvikling: Sikkerhetspolitikk er langt mer enn militære tiltak. Og militære tiltak kan virke mot sin hensikt, den å sørge for fred, frihet og sikkerhet, dersom den ikke underordnes og sees i nær sammenheng med en slik bredere sivilpolitisk agenda.

Det er derfor oppmuntrende å se at det i denne anstrengte situasjonen også er mange som engasjerer seg for å bygge broer mellom mennesker, nasjoner, kulturer og religioner. Det siste er ikke minst viktig. Religion har – med større og mindre rett – blitt tildelt en forsterket rolle i det globale konfliktbildet i det nye årtusenet. Dette må religionen ta på alvor. Religion kan både være kilde til strid og ressurser til fred og forsoning. Det må en helhjertet innsats til -- både innenfra og utenfra – for å hindre at religionene blir årsak til vold. Og det skal kreativitet, mye bønn og hardt arbeid til for virkelig å la religionenes felles visjon om fred bli omsatt til konkrete fredsskapende tiltak—i Midt-Østen, i Indonesia, i Tsjetsjenia.

Jeg hadde i november i fjor gleden av å invitere ledere for de største religiøse tradisjonene i Europa hit til Oslo. Vi ble enige om å opprette et Europeisk Råd for Religiøse Ledere (ECRL). I den erklæringen vi kom fram til—som selvsagt ikke lot seg skrive uten at spenninger kom til overflaten—stiller vi oss sammen som religiøse ledere mot misbruket av religion i voldens og terrorens tjeneste, for en fredelig og rettferdig utvikling i Europa.

Det var ikke uten betydning, tror jeg, at vi var samlet i Oslo. Vår by og vårt land har en fredens klang over seg i mange ører rundt om på kloden. Norsk innsats for fred setter spor. Det skal vi være stolte av. Men fortjener vi dette fredfulle ryktet? Og vil vi klare å opprettholde den tilliten dette ryktet er et uttrykk for? Tillit er noe en må gjøre seg fortjent til – igjen og igjen. Jeg har pekt på en rekke etiske og folkerettslige utfordringer i dagens situasjon. Trår vi feil her, står vi ikke bare i fare for å miste en verdifull tillit og skusle bort en dyrekjøpt arv. Vi vil også stå i fare for, til tross for vår enestående tilgang på økonomiske, så vel som sosiale, politiske og kunnskapsmessige ressurser, å gi fra oss en verden som er farligere, mer urettferdig og mindre fredelig enn den vi overtok. Jeg tror jeg har mange med meg – og ikke minst dere i det norske forsvar - i et dyptfølt engasjement for at så ikke må skje.

Kan militærteorien være en veiviser til fremtiden?

Nils Naastad

(Et kortfattet svar på dette spørsmålet vil være nei. Militærteori er som sådan ingen veiviser til fremtiden ei heller til hvordan vi skal forstå fremtidens kriger.

Mine damer og herrer; vi feirer i år et hundreårsjubileum: Like før jul i 1903 tok to brødre ved navnet Wright en gjenstand tyngre enn luft opp i luften for egen maskin. Det kan jo være et godt utgangspunkt for å snakke om luftmakt.

I 1878 konstruerte dansken L. C. Nielsen og svensken Gustaf de Laval uavhengig av hverandre de første ordentlige separatorer. Landbruket i Europa stod midt i en alvorlig krise. Store mengder billig korn fra USA og Russland oversvømmet markedene. Landbruket i nord måtte omstilles mot kjøtt- og meieriproduksjon. Separatoren gjorde moderne meieridrift mulig. For å lage smør hadde man tidligere måttet vente på at fløten steg opp av seg selv, og det var en langsom prosess (som det er det også i Luftforsvaret), som krevde en tid man ikke hadde. Separatoren var et teknisk svar på et stort produksjonsproblem. Om den ikke berget nordisk landbruk, var det i hvert fall sterkt medvirkende.

Hva dette har med Luftmakt å gjøre? Ingenting.
Men historien har allikevel et stort potensiale for å trekke paralleller. Dette er den vakre fortellingen om fremskrittet, problemene vi står overfor defineres og deretter løses de teknologisk. Fortellingen om moderniseringen blir en fortelling om teknologiske oppfinnelser. Fremskrittsoptimismen uttrykkes og bekreftes ved at teknologien blir stadig bedre. Problemene menneskeheten står overfor løses med nye oppfinnelser.

På 1920 tallet utvikles de første såkalte luftmaktsteorier som svar på et problem som skulle løses. Problemet var krigen selv. 1. verdenskrig var et militært nederlag ved at den ikke ble avgjort på slagmarken. Krigen ble avgjort ved at den ene parten hadde uttømt sine ressurser. Løftene om de seier-rike offensivene var blitt til hauger av lik.

Krigen hadde vært så ødeleggende for alle de deltakende land at samfunnene var truet av sammenbrudd, dette gjaldt både de som tapte så vel som de som vant. Keiserdømmene forsvant, kommunistene overtok i Russland og det ble forsøkt å gjøre kupp i en rekke land, (Tyskland, Østerrike, Ungarn etc.), borgerskapet fryktet den nye organiserte og selvbevisste arbeiderklassen. I Storbritannia trakk myndighetene tropper hjem fra imperiet i tilfelle kupp, også i Norge ble det gjennomført visse motforholdsregler i Forsvaret for å hindre at en revolusjonær arbeiderbevegelse kunne få fatt i våpen som lå på depotene.

Ut av denne foruroligende utviklingen springer det en foruroligende tanke; dersom dette er resultatet av en stor landkrig, så må det bety at krigen ikke lenger er brukbar som politisk verktøy. Dersom den moderne krigen blir så total at den ødelegger samfunnet også hos seierherrene, så kan den ikke brukes.

Det er dette problemet Luftmaktens såkalte teoretikere setter seg fore å løse. Kan luftmakt benyttes for å gjøre krigen kort og vinnbar igjen? Finnes det en billigere måte enn den store bakkekrigen? (Det er i parentes ikke så langt unna den begrunnelsen som brukes for luftmakt fremdeles)
Og som vi alle vet, så er svaret på dette spørsmålet ja. Den talsmannen som blir lagt merke til er italieneren Giulio Douhet. For ham er det klart at flyet er det nye våpen. Flyet kunne overfly

frontene og deretter bombe fiendens samfunn ut av krigen ved et kort og heftig slag. For om motpartens bakkestyrker ikke kunne knekkes, så kunne jo hans sivile samfunn knekkes. Krigen hadde vist, argumenterte Douhet, at det var samfunnets vilje det kom an på, ikke soldatenes. Ved hjelp av gassbomber, brannbomber og sprengstoff, skulle krigen gjøres så grusom at den også ble kort. Flyene skulle gjøre krigen uutholdelig.

Det sier seg vel nesten selv hvem det var som skulle bombes. Man skulle bombe de elementer som var mest misfornøyd med samfunnet, man skulle bombe dem som allerede truet med å gjøre opprør: Man skulle bombe arbeiderne. Slik fremstår fascisten Giglio Douhet som en slags luftmaktens Karl Marx.

Og dette var jo hva man i betydelig grad også kom til å praktisere under den andre verdenskrig. *"I suppose it is clear that the new aiming points are to be the built up (residential) areas, not, for instance, the dockyards or aircraft factories"* slo RAFs sjef Air Chief Marshal Charles Portal fast så sent som i februar 1942.[1] (Riktignok er det ingen ting som tyder på at man i RAF kjente til Douhet, men man tenkte åpenbart i de samme baner.)
Dette var mistilliten til arbeiderklassen omsatt til praksis i krig, bombestrategien som ble utviklet var klassebasert.

Den amerikanske strategien var annerledes. Amerikanske politikere slo fast allerede før 1. verdenskrig var over, at amerikanere ikke kunne bombe sivilister. Dette var kan hende den viktigste årsaken til at tenkerne ved Air Corps Tactical School måtte lete etter andre mål. De fant industrien. Industrien var en struktur, tenkte majorene, som bestod av en rekke fabrikker hvis produksjon måtte sees i sammenheng. I dette industrielle nettverket måtte det finnes fabrikker som var viktigere enn andre, fabrikker som produserte varer som var innsatsfaktorer i annen produksjon. Kunne man finne frem til slike kritiske anlegg, totalproduksjonens flaskehalser, så kunne bombing av disse stanse hele industriproduksjonen. Dette ville så føre frem til et moralsk sammenbrudd i den krigførende nasjonen. The Industrial Web Theory var en strukturell tilnærming. Man forsøkte å forstå samfunnets strukturer og hvordan disse integrert virket sammen. En forutsetning for denne tilnærmingen var at man kunne treffe det man siktet på. Man behøvde presisjon. Og det mente man at man hadde med det nye Norden bombesiktet. Problemet lot seg løse teknisk.

Til en viss grad må vi si at den amerikanske tilnærmingen var vellykket, i hvert fall hva Tyskland angikk og på en mer direkte måte enn teoretikerne hadde sett for seg. Ødeleggelsen av tysk oljeproduksjon var en viktig årsak til den reduserte tyske kampkraften på slutten av krigen, ikke først og fremst ved at produksjonen ble redusert, men ved at man manglet drivstoff for kampstyrkene. Men bombingen knekket ikke moralen.

Men folkens; hva slags teorier er dette, eller mer presist; hva handler disse teoriene om? (En teori er her et utsagn av typen hvis A, så B. B følger av A, vi har å gjøre med kausale sammenhenger. Vi skal ikke bare forklare hva som har skjedd, vi skal forklare hva som kommer til å skje, en teori er prediktiv.)

Douhets teori er en teori som sier at når visse deler av det sivile samfunn blir bombet, så vil samfunnet hurtig bryte sammen og lederne vil bli tvunget til å søke fred. Den amerikanske teorien er en teori som sier at når visse strukturer i dette samfunnet blir bombet, så vil samfunnet

[1] Keegan 1990 s 421, Webster and Frankland vol IV s 144 refererer Directif no xxii av 14. februar 1942 fra Chief of Air Staff til Air Officer Commanding-in-Chief, Bomber Command, det var dette direktivet som gav Portal anledning til å komme med sin presisering.

raskt bryte sammen og lederne vil bli tvunget til å søke fred. Er dette teorier om luftmakt, eller er de teorier om hvordan et samfunn fungerer? Vi ser jo raskt at det er samfunnet vi her har dannet oss en teori om.

Og hva om vi nå tar mer moderne teorier, for eksempel John Wardens såkalte 5-rings-modell? Tegn! Igjen ser vi at dette er en teori for hvordan samfunnet er bygget opp og fungerer, (hvorvidt dette er en teori eller vi skal nøye oss med å kalle det en hypotese, kan jo diskuteres) snarere enn en teori om luftmakt.

Den sørgelige konklusjon på den første del av foredraget er at de såkalte luftmaktsteorier ikke er teorier om luftmakt, men om samfunn. Vi står her overfor en rekke forsøk på samfunnsanalyser, offiserene er blitt sosiologer og statsvitere. Vi bivåner de glade amatørers inntog på samfunnsanalysens område. Luftmakten blir jo her redusert til en transportorganisasjon som bare skal plassere sprengstoffet, så vil den ønskede virkning fremkomme nærmest automatisk bare det smeller på riktig sted.

Saken er altså den at de store luftmaktsteorier, vi kan med en fellesbetegnelse kalle dem Douhetisme, egentlig ikke handler om luftmakt, men om det menneskelige Samfunn og hva som skal til for å knekke den sosiale vilje.

Og så viser det seg altså også at forståelsen av hvordan samfunnene reagerer stort sett har vært feil. Bombene har jo virket, men de har altså ikke hatt den forventede effekt. (I parentes kan jeg jo minne om at chechenerne som plasserte bomber i kjelleren til boligblokker i Moskva, også forregnet seg. Russerne ble ikke myke i knærne, de ble forbannet, de også.)

Saken er altså at vi knapt har noen overordnet teori om hvordan luftmakt bør anvendes. Vi har noen oppfatninger om hvordan samfunn fungerer og disse oppfatningene er som sagt synsing fra synsere i uniform. I beste fall kan vi kalle oppfatningene hypoteser. Vi har hypoteser om samfunnets funksjon.

De overordnede Teoriene om luftmakt eksisterer ikke. (Så kan man spørre, er det så viktig da, at vi har teorier om samfunn heller enn teorier om luftmakt? Ja jeg tror det er viktig, luftmakt kan vi si vi har greie på. Men det bør være mulig å selge inn i mange Luftforsvar at skal vi ha teorier om samfunn, så må vi alliere oss med folk som har greie på samfunn, vi kommer kanskje ikke utenom statsvitere, sosiologer og politikere?)

Men vi skulle altså si noe om fremtiden og luftmakt. For det er jo ikke slik at vi ikke kommer oss til fremtiden fordi teoriene er dårlige. I stedet for å se på teoriene skal vi se på det utstyret vi har eller er i ferd med å anskaffe. For uansett hvor tvilsomme antakelsene våre er, så ligger de jo til grunn for det utstyret vi anskaffer. Og det er jo det utstyret vi skal ha med oss inn i fremtiden.
De dyre våpenplattformers levetid er lang, det er en sammenheng mellom pris og levetid. Når vi en gang i fremtiden skifter ut våre F-16 vil disse ha vært med oss i over 30 år, - 35års regelen gjelder muligens for både offiserer og utstyret. Får du helt nytt utstyr når du begynner i Forsvaret, fases du og utstyret ditt ut sammen.

Poenget mitt er selvsagt at det er en sammenheng mellom det utstyret vi har og måten det kommer til å bli brukt på. Anskaffelse av mange langtrekkende bombefly signaliserer visse ambisjoner. Dette er ingen ny observasjon og den er lett å belegge med empiri. Tyskerne skaffet seg stupbombere for å drive presis bombing i kampområdet. Til det var flyene velegnet og det var det de ble brukt til med suksess. Vi kunne altså ut fra selve konseptet si noe om fremtiden.

Britene konseptualiserte i 1936 tunge bombefly for å bombe Tyskland fra store høyder. De nye flyene som skulle fly med høy hastighet i store høyder betød, skrev planleggerne, at man ville ha mindre presisjon enn tidligere. Men man anså ikke det som noe problem. Når krigen så kom, ble de store tyske målene angrepet fra store høyder. Man gruset de tyske byene. De britiske bombeflyene ble brukt som de var tenkt, og de egnet seg utmerket.
Og selvfølgelig: Anskaffelsen av utstyr for å levere styrte bomber fra våre jagerbombere, signaliserer jo også visse ambisjoner.

Noen vil kanskje si at det var da svært til teknologisk determinisme da. Dette er jo i akademiske sirkler sett som svært gammeldags. Nja, kanskje det, og kanskje ikke. Jeg fastholder at verktøyet determinerer bruken. Separatoren skal separere melk, og stupbombere skal bombe med presisjon. Når politiet i enkelte byer beslaglegger springkniver og skytevåpen så er også dette en form for preventiv teknologisk determinisme, - og den er ikke grepet helt ut av luften.

Det betyr selvsagt ikke at man er uten valg. Vi driver ikke inn i fremtiden uten styring. Men valgene gjøres i konseptualiseringsfasen, i den perioden at våpenet tenkes ut eller evt. anskaffes, ikke ved bruken.

Det er ikke nødvendigvis de militære som gjør disse valgene. Det kan også være våpenindustrien som forsker frem et nytt våpensystem. Dernest må mulighetene dette våpenet har, demonstreres for de militære. Det må så å si lages en fortelling hvor det nye våpenet har hovedrollen. En fin fremstilling av dette fenomenet finner vi i John Ellis; *The Social History of the Machine Gun*, like fascinerende er fortellingen om brødrene Wrights arbeid for å få de militære interessert i sin oppfinnelse. De lyktes jo som kjent til slutt, det for så vidt derfor vi sitter her. (her kan Robert Wohls bok *A Passion for Wings* anbefales).

Men nå sprekker også min fine innledningsobservasjon om at teknologien finnes opp som svar på et problem. Noen ganger er det altså slik at teknologien finnes opp før problemet. Det er ikke vanskelig å gi eksempler på at problemet konstrueres etter teknologien. Dette er kan hende hovedproblemet med det militær-industrielle komplekset. (Og uttrykket stammer ikke fra en gammel radikaler, den første som brukte det var general og president Eisenhower.)

Hvilke trekk ser vi så i dagens våpenanskaffelser som kan si oss noe om fremtiden? For det første så snakker vi om øket presisjon. Påstanden om at vi er blitt mer presise tror jeg vi skal ta med en klype salt. En kniv er et presist våpen, en korde er presis, et riflet løp i en stødig hånd er også presist. Artilleri som kjenner sin egen posisjon så vel som posisjonen til målet er også presist. Da det israelske flyvåpenet angrep Saddams reaktor med 6 F-16 fly, slo den første dumme bombe hull i taket. Det sies at de påfølgende 5 gikk gjennom dette hullet og slo seg ned gjennom etasjene. (så det går an, folkens!)

Det er ikke først og fremst presisjonen som har økt. Det er avstanden som har økt. Det er vår evne til å være presise på avstand som har økt og som fortsatt øker. Den vestlige overlegenheten baserer seg på at vi er presise utenfor vår motstanders rekkevidde. Denne utviklingen går videre på den måten at man kan sitte i en bunker i en verdensdel og sikte på et mål i en annen, man kan deretter angripe fra en plattform i nærheten av målet. Dette betyr at krigen blir ytterligere robotisert. (Det er ikke vanskelig å se etiske utfordringer ved at voldsbruken blir ytterligere risikofri, så senkes muligens voldsterskelen.)

For militærteorien betyr dette at det gamle ryddige skillet mellom det taktiske, operative og strategiske nivået blir enda mer uklart og kanskje bør avskaffes? (her er det mye tenkning å

gjøre). Videre så betyr det også at dogmet om sentralisert kommando og desentralisert utførelse kan stå for fall. Nå kan vi få både sentralisert kommando og utførelse. (Dette åpner for en forenkling av den militære organisasjon).

Det er klart at det er USA som leder an utviklingen her, det er også klart at Norge følger etter. Vi har alltid, i hvert fall i Luftforsvaret, hatt en forkjærlighet for amerikansk utstyr. Denne forkjærligheten vedvarer. Ikke, tror jeg, som et utslag av vi mener alt som er amerikansk er bra fordi det er amerikansk, men ganske enkelt fordi mye av utstyret teknisk er svært er bra. Det er ingen tvil om at de flyene vi i dag opererer har vært gode valg. Og det er ingen tvil om at vårt internasjonale engasjement og samarbeid med vår store bror i vest i dag er gjort mye enklere av at vi opererer amerikansk utstyr og har en betydelig del av vår grunnutdannelse på utstyret derifra.

Hvor vil jeg hen nå? Jeg vil peke på hva som kan komme til å bli et problem i fremtidige operasjoner. USA er ikke bare ledende på det militærteknologiske området. De er også ledende når det gjelder å utvikle ny rett på området. Det er helt åpenbart at deler av den amerikanske praksis og åpne begrunnelser for den ikke er hjemlet i gjeldende folkerett. (Amerikansk rett er hva noen vil kalle den sterkestes rett, men det er også, i dagens samfunn, en form for rett). USA har jo som kjent også reservert seg mot jurisdiksjonen til internasjonale domstoler. De kan godt dømme, bare ikke amerikanere.

Når vi, med amerikansk utstyr skal være med på ”the American way of Warfare” så åpner dette noen interessante spørsmål. Hva hjelper for eksempel det å være teknisk og taktisk kompatibel med vår store allierte dersom vi ikke er moralsk og juridisk kompatibel? Dette er et stort spørsmål jeg ikke kan svare på, men det er klart at de av oss som skal til utlandet og praktisere krigerens håndverk, har krav på at noen tenker nøye på disse spørsmålene.

Har jeg nå svart på problemstillingen? Bare delvis. Det finnes etter min mening knapt en solid og troverdig militærteori, lang mindre en teori eller et teorisett som kan vise vei inn i fremtiden. Det er i dag teknologien som driver teorien, det er ikke omvendt. I dag er det teknologien som driver utviklingen av krigen så vel som av teorien, i neste omgang kommer også de teknologiske endringer til å endre den militære organisering og organisasjon kraftig. Personlig tror jeg det er her vi vil se de store endringer fremover. (Det er jo også her de store vanskene ligger, det er aldri vanskelig i en militær organisasjon å innføre ny teknologi, med mindre den nye teknologien har til hensikt å endre organisasjonen). I den grad vi skal se inn i fremtiden må vi lete etter teknologiske linjer, ikke etter teorier.

HVORFOR ER LUFTFORSVARET I AFGHANISTAN?

Marit Nybakk

La meg innledningsvis få takke for invitasjonen til å komme til dette kompetente forumet for å gi noen politiske perspektiver og utfordringer knyttet til vår deltakelse i internasjonale organisasjoner generelt og i Afghanistan spesielt.

Selv om denne typen aksjoner egentlig er Regjeringens ansvar, har deltakelsen i Afghanistan-operasjonene blitt behandlet i Stortinget flere ganger, støttet av et bredt flertall.

11. september 2001 redefinerte forsvars- og sikkerhetspolitikken i vid forstand. Sjelden har verden blitt mer forandret av en enkelt hendelse som etter at de kaprede American Airlines-flyene braste inn i Twin Towers og Pentagon en septembermorgen for 16 måneder siden. Vi husker dem som valgte å hoppe ut fra 30. etasje og ned i døden som alternativ til å bli brent levende. Vi husker kvinnen som kom løpende dekket med aske. Vi husker sjokket over en ondskap vi står tilsynelatende maktesløse overfor: Viljen til å begå selvmord for å myrde hundrevis, ja, tusenvis av uskyldige mennesker.

Det året vi har bak oss ble et slags "året derpå". Den verdensomspennende flernasjonale kampanjen "The Coalition of the Willing" dekker ca 70 land og er i seg selv enestående. NATO har opprettet et NATO-Russland råd. USA og Russland er blitt nære allierte i krigen mot terror. Afghanistan er blitt kvitt det mest avskyelige regimet verden har sett etter Pol Pot-regimet i Kambodsja: Det Al Qaida-oppbygde og innsatte Taliban. Vår deltakelse i Operation Enduring Freedom handler om å bekjempe et globalt onde som hadde sitt senter og sin hovedbase i tilknytning til Taliban-regimet i Kabul – og er dermed fremskutt forsvar av Norge.

Samtidig er kampen mot terror en kamp for demokrati, for likestilling, for menneskeretter og menneskeverd, for en internasjonal rettsorden.

11. september 2001 til tross, utviklingen av internasjonal terrorisme og framveksten av etniske motsetninger og fundamentalistiske strømninger må også sees i ly av bortfallet av den kalde krigen og de enorme sosiale, strukturelle og geografiske omveltningene som fulgte i kjølvannet. Willoch-utvalget – eller Sårbarhetsutvalget – understreket da innstillingen forelå at risikobildet endrer seg kontinuerlig og alltid vil være en refleksjon av de utviklingstrekk som ti enhver tid kjennetegner vårt eget samfunn og våre omgivelser.

Men – så brytes utviklingstrekkene av det uforutsigbare. I likhet med 11. september 2001 var 9. november 1989 en uforutsigbar dag som endret maktbalansen. Ja, 11. september og de internasjonale terroristnettverkene kan for så vidt sies å være konsekvenser av 9. november 1989.

Ett av de mest fremtredende trekk ved den kalde krigen og den kjernefysiske balansen var en absurd bipolar stabilitet fremkommet ved at kjernevåpenarsenalene på begge sider var mer enn tilstrekkelige til å utrydde jordens befolkning opptil flere ganger. Konfliktbildet var preget av en rekke interstatlige konflikter, men uten at det kom til større og alvorligere supermaktskonfrontasjoner. Internasjonale militære fredsinnsatser var gjennomgående preget av å etablere en relativt statisk buffer mellom to aktører med territoriale krav i forhold til hverandre. Da de første øst-tyskerne slo seg gjennom muren 9. november 1989, falt selve symbolet på den kalde krigen. Kanskje den oppvoksende slekt allerede spør: "Hvilken mur?". 13 år er forbløffende lenge til å være en så kort periode i historien.

Men for fjorten år siden sto muren i Berlin og vi hadde fortsatt kald krig og maktbalanse. Folk med stor innsikt spådde mange utviklingsbaner, men svært få spådde den som skulle komme. Zbigniew Brzezinzki, amerikansk sikkerhetsrådgiver, kan stå som representant for de uheldige med et kjent navn, som var faretruende konkrete på et meget ugunstig tidspunkt. I 1989 skrev han "The grand failure". Der sier han blant annet:
"East Germany has become a communist Preussia, disciplined, motivated and productive. It may remain so for quite a while, especially since West-Germany generously contributes to its well-being."

Han tok som kjent feil.
9. november 1989 var en like ualminnelig alminnelig dag, bortsett fra i Berlin. Der sprengte folk den forhatte muren. De umulige, det uforutsigbare, det utenkelige hadde skjedd. Datoen markerer et fysisk brudd – eller gjennombrudd – i historien. Den nye tids orden – eller uorden - starter her.
Sovjetunionen ramlet sammen, Tyskland ble samlet til ett rike. I det post-sovjetiske rike ramlet gamle statsstrukturer overende som korthus. Forskere som ikke fikk lønn, solgte sin kompetanse til høystbydende, også kjernefysisk, kjemisk, biologisk eller annen militær kompetanse. Nye stater med eksotiske nav oppsto. Navn som Uzbekistan, Kirgisistan og Turkmenistan var ikke fantasiland fra Donald Duck. De var høyst reelle tidligere republikker i Sovjetsamveldet, nå selvstendige stater i et område som fremstår som ett av de mest strategiske områdene i verden, både ved sin beliggenhet og naboer i sør og fordi det i Kaukasus og Sentral-Asia er ufattelige energiforekomster.

Avslutningen av den kalde krigen, oppløsningen av Sovjetunionen og Warszawa-pakten medførte at en rekke av de konfliktene, spesielt i Europa, som maktbalansen hadde lagt et lokk over, gikk over i borgerkrig, "cross-borders" konflikter, etnisk rensning og humanitære katastrofer.

Mens fienden tidligere kunne være representert ved den andre forsvarsalliansen eller nabostaten, var fienden plutselig blitt naboen på den andre siden av gaten eller et diffust nettverk av terrorister som ingen visste hvor eller hvem var.
Fredsbevarende styrker og operasjoner ble satt på en tøff prøve. Så sent som i fjor vår gikk en regjering av i Nederland fordi en av statsrådende hadde vært forsvarsminister i 1994, da Nederland hadde soldater i FN-styrken i Bosnia. Handlingslammede FN-soldater var vitner til at 7000 mennesker ble skutt og kastet i massegraver i Srebrenica – uten å gripe inn. Noe Europas og FNs samvittighet fortsatt sliter med. Den påfølgende NATO-baserte IFOR-styrken til Bosnia representerer på mange måter et tidsskille i forhold til hvordan verdenssamfunnet må håndtere moderne konflikters ufattelige grusomheter gjennom en helt annen styrke og robusthet enn den man tidligere hadde basert seg på.

Og debatten om såkalte humanitære intervensjoner tok til for alvor. Hvor mye undertrykking innenfor et lands grenser skal verdenssamfunnet tåle? Hvor går grensen for å gripe inn? Ved praktisering av steining av kvinner? Ved etnisk rensing? Ved massiv nedslakting av egen befolkning?

Da NATO vedtok sitt strategiske konsept våren 1999, ble det nye trusselbildet tegnet: Terroristnettverk, internasjonal kriminalitet, menneskesmugling, narkotikahandel og spredning av masseødeleggelsesvåpen, og fokus på hvilende terroristceller var en del av dette bildet, som kom i tillegg til det mer tradisjonelle trusselbildet. NATO erkjente at terrorisme kan skape

internasjonal ustabilitet, og at det moderne, åpne og stadig mer globaliserte og teknologiske samfunnet er sårbart.

Så kom 11. september og det grufulle terroranslaget mot World Trade Center og Pentagon. Trusselbildet ble virkelighet.

Kampen mot terrorisme og terroristnettverk, uansett hva slags politisk eller religiøs tilknytning disse har, må være langsiktig og helhetlig. Vi må se på årsakene, og vi må ta i bruk både politiske, diplomatiske, økonomiske og militære virkemidler.

Terrorangrepet den 11. september viste brått og brutalt hvilken ny dimensjon den internasjonale terrorismen og asymmetrisk krigføring stiller oss alle overfor.
I sin ufattelige grusomhet stilte den nye situasjonen oss alle overfor et verdivalg. Vi kunne ikke stille oss likegyldige overfor de utfordringene som den nye situasjonen hadde skapt. Norske militære styrker deltar i denne kampen i dag og gjør en imponerende innsats. Kampen mot terrorismen er fortsatt ikke avsluttet, og må påregnes å ville fortsette i lang tid fremover. Vårt veivalg høsten 2001 står imidlertid fast.

Både nasjonalt og innen NATO-alliansen måte vi tenke fundamentalt nytt innenfor vår forsvars- og sikkerhetspolitikk. For å sikre trygghet i hverdagen for folk flest.

I omleggingen av Forsvaret i vid forstand er det særlig tre saker som har preget Forsvarskomiteens arbeid det siste året i lys av de nye trusselbildene:

- Omleggingen av Forsvaret
- Arbeidet med samfunnssikkerhet og samarbeidet sivilt og militært beredskap
- Omleggingen av NATO.

Alt dette er en vesentlig del av norsk forsvarspolitikk. Deltakelse i Operation Enduring Freedom og ISAF-styrkene i Afghanistan parallelt med beredskap mot terroranslag nasjonalt og i alliert regi er en integrert del av arbeidet for å gjøre hverdagen tryggere, en vesentlig
del av sikkerhetspolitikken.

Når det gjelder forsvarsreformen, er det historisk at Arbeiderpartiet og de nåværende regjeringspartiene er blitt enige om struktur, volum og en total økonomisk ramme for Forsvaret for inneværende fireårsperiode. For alle som har fulgt forsvarspolitikken de senere år er det åpenbart at dette vil være en enorm styrke.

For et lite land bør forsvars- og sikkerhetspolitikk være tuftet på et bredt flertall i Stortinget. Det må legges vekt på at det føres en aktiv, balansert og forutsigbar forsvars- og sikkerhetspolitikk i samarbeid med de allierte og naboland. Forliket sikrer dette.

Målet var å få etablert en ny forsvarsstruktur med en bedre operativ evne, og en struktur som er tilpasset dagens og fremtidens sikkerhetspolitiske utfordringer. Da måtte vi fjerne ubalansen mellom struktur, volum og økonomiske rammer. Det har vi lykkes med nå.

Det er dessverre en utbredt misforståelse at forliket innebærer kutt i forsvarsbudsjettet. Forsvarsbudsjettet har aldri vært større, og det øker kraftig i 2004 og 2005, innenfor en totalramme på 118 mrd.

Sårbarhetsmeldingen gikk i Stortinget i begynnelsen av november. Innstilling S.nr. 9 er etter min oppfatning et forsvarsdoktrinært nytenkende dokument når det gjelder antiterrortiltak, sivil beredskap og samarbeid mellom sivil beredskap og Forsvaret. Vi måtte tenke nytt på flere områder. På andre felter har vi bedt Regjeringen komme tilbake til Stortinget med forslag. Fordi: Det som i dag er skremmende med internasjonal terrorisme og terroristnettverk – er at de alltid ligger i forkant. Til tross for moderne etterretning, har verdenssamfunnet enda ikke greid å forutsi – eller forutse – hvor og hvordan det vil skje neste gang. Et annet iøynefallende trekk er at angrepene utføres på en svært profesjonell måte.

Terroristene som plasserte bombene på Bali visste nøyaktig hva de gjorde. Koordineringen, planleggingen og den enorme sprengkraften forteller om høy kompetanse og veltrente eksperter. Kaos, frykt, usikkerhet var resultatet. Turistene rømmer både fra Bali og fra Mombasa, mens Miss World konkurransen flyktet fra Nigeria.

De ekstreme islamske fundamentalistene er mot selve samfunnsstrukturen i de vestlige demokratiene. Mot demokrati, mot modernitet, mot rettsstaten, mot ytringsfrihet, mot utjamning mellom fattig og rik, mot enhver utvikling og likestilling for kvinner. Lederne for Al Qaida er selv rekruttert fra søkkrike familier i arabiske land. Vi skal også være oppmerksom på at de er mot opprettelsen av en sekulær og demokratisk palestinsk stat i Midt-Østen. Det er i Al Qaidas interesse at enhver fredsprosess mellom Israel og Palestina blir kvalt i starten. Og de arabiske land har holdt palestinerne som forhandlingskort i alle år. Konflikten mellom palestinere og israelere holder hele denne verdensdelen i en slags stillstand som fører til mangel på utvikling. De arabiske land fortsetter med foreldede styresett og tyrannier fordi lederne kan kanalisere frustrasjonen mot Israel i stedet for å kanalisere den mot sine egne diktatorer. Dette skaper igjen grobunn for terrorisme i disse landene og gjør befolkningen til et lett bytte for terroristgrupper.

Men – så skal vi huske på – samtidig med terrorbombene på Bali, smalt det i et kjøpesenter i et av våre naboland. 8 drept, inkludert selvmordsbomberen, 80 mennesker skadet. En forvirret person? Ja, og hvordan kan vi garantere oss mot at ustabile, men teknisk dyktige mennesker i våre egne samfunn påvirkes av selvmordsbombere i andre deler av verden? Bomben utenfor Helsingfors er kanskje den hendelsen som har sjokkert flest av dem jeg har snakket med om terrorisme.

Hva skjer hvis Maridalsvannet blir forgiftet med et reagensrør kjemisk våpen? Hvordan kan et slikt anslag forebygges? Dersom en bombe eksploderer i Oslo sentrum 17. mai, har vi den nødvendige organisering, vet vi hvor pasienter med tredje grads forbrenning skal sendes, kan Forsvarets sanitet brukes som operativ ressurs?

Spørsmålene er mange. Hvordan takler vi et biologisk angrep i Oslo Spektrum, der publikum rett og slett blir syke? Hva hvis et SAS-fly blir skutt ned fordi det er noen om bord som terroristene ønsker å ramme?

Styrket etterretning og flyplassikkerhet er blant vedtatte forslag. Men her er mye upløyd mark.

Kampen mot terror mot påregnes å fortsette i lang tid framover. NATO-toppmøtet i Praha la avgjørende vekt på nettopp dette.

NATO har tilpasset seg raskt og smidig både til post 1989 og post 11. september, og har nylig inngått en tett allianse med Russland. Dette er en direkte konsekvens av den brede koalisjonen mot terrorisme.

I Praha ble det fulgt opp med et tilbud om fullt medlemskap til flere tidligere sentral- og østeuropeiske land. NATO bestod av 16 land da Berlinmuren falt. Nå drøye 13 år etter er det bestemt at alliansen skal bestå av hele 26 land. Stater som befinner seg bak det som Churchill kalte "jernteppet" er allerede i dag fulle medlemmer, og i løpet av 2004 vil land som Slovakia og Slovenia – stater som faktisk ikke eksisterte i 1989- bli tatt opp. Dette gir håp for framtiden, og vi må huske dette når framtidsoptimisme blir erstattet med frykt for hva morgendagen vil bringe.

Toppmøtet tok også opp de en såkalt NATO Reaction Force, og såkalte Prague Capabilities Committments (PCC), en arbeidsdeling mellom de europeiske NATO-landene.

De fire hovedområdene som NATOs generalsekretær Lord Robertson har fokusert på i kampen mot terrorisme er:

- Forsvar mot kjemiske, biologiske, radiologiske og kjernefysiske våpen
- Kommando-, kommunikasjons- og informasjonsoverlegenhet
- Evne til operativt samarbeid og effektivitet i strid
- Evne til hurtig deployering og utholdenhet

Ellers ble det påpekt åtte områder hvor Europa må bedre seg:

- Den første kritiske mangelen er styrkebeskyttelse mot masseødeleggelsesvåpen.
- Den andre kritiske mangelen er luftbåren bakkeradar.
- Den tredje kritiske mangelen er presisjonsstyrt ammunisjon.
- Den fjerde kritiske mangelen er strategiske transportfly.
- Den femte kritiske mangelen er tankfly med kapasitet til å fylle drivstoff i lufta. Innen disse to flykapasitetene er den amerikanske dominansen i dag fullstendig: Amerikanerne har 250 strategiske transportfly og tankfly, mens de europeiske allierte til sammen har 12-15 transport- og tankfly.
- Den sjette kritiske mangelen er støttejamming fra fly. Dette er elektronisk krigføring som tar sikte på å forvirre en forsvarers luftforsvar, mens man undertrykker og slår det ut fra luften.
- Den sjuende kritiske mangelen er sikre kommando-, kontroll-, og informasjonssystemer for NATOs flyttbare hovedkvarter.
- Den åttende og siste kritiske mangelen er strids- og servicestøtte, for eksempel evnen til å få frem forsyninger til korps og divisjoner i strid inne i et krigsteater.

Norge har i tillegg spesielt blitt bedt om å bidra innen strategisk sjøtransport (her har vi ledernasjon-ansvar), et logistikk-fartøy for å gi fregattene økt evne til å operere langt fra Norge. Her kan man jo se at fregatter så vel som de fremtidige MTBene vil etter alle solemerker være en meget sentral del av det norske Forsvaret generelt, og i våre bidrag til NATO spesielt. samt med kamphelikoptre. Det siste har norske myndigheter sagt nei til. Tilsvarende landspesifikke krav har gått ut til de andre medlemslandene.

La meg til slutt få rose hele det norske Forsvaret generelt og Luftforsvaret generelt, spesielt for den jobben dere gjør i kampen mot terrorisme. Jeg er svært imponert over den måten Forsvaret har taklet dette på. De militære er klar over sin makt, og jeg opplever at ansvarlige offiserer er særdeles bevisste på denne makten – og takler dette bra.

Derfor har dere min fulle støtte og den rosen det er mulig å gi dere. Jeg er også stolt over den måten dere har taklet media.

Jeg er sikker på at de deployerte i Kirgisistan gjør jobben sin på en forsvarlig – og ansvarlig måte. For ikke å si ansvarsbevisst måte. Slik også spesialstyrker som marinejegere og mineryddere har gjort. Spesialstyrkene deltok aldri direkte i kamp, og så vidt jeg vet er det ikke så langt heller sluppet våpen fra norske fly. Men både ISAF-styrken, den nye afghanske regjeringen og humanitære organisasjoner ønsker Operation Enduring Freedom tilstede – for å kunne jobbe trygt i arbeidet med byggingen av et nytt Afghanistan.

Forsvarspolitikken og kampen mot terrorisme og årsakene til terrorismen er en kamp for den internasjonale rettsorden, for et åpent og demokratisk samfunn og for menneskerettighetene.

Også i vår utenrikspolitikk legger Norge vekt på å fremme de verdiene vårt eget samfunn er tuftet på: Demokrati, velferd, likestiling, et fungerende arbeidsliv, folkelig deltakelse. Dette er på mange måter den nordiske dimensjonen i politikken, der utenrikspolitikk bli relevant for folk flest, for et meningsfylt og menneskeverdig liv.

Targeting Saddam Hussein

John Andreas Olsen

Introduction

On 10 August 1990, eight days after the Iraqi invasion of Kuwait, Colonel John A. Warden and his team presented General Norman Schwarzkopf with a concept that called for targeting the Iraqi regime directly. The first slide of "Iraqi Air Campaign Instant Thunder" stated that it should be "a focused, intense air campaign designed to incapacitate Iraqi leadership and destroy key Iraqi military capability, in a short period of time. And it is designed to leave basic Iraqi infrastructure intact". The Instant Thunder proposal underwent several changes prior to the execution of the air war, but the original concept remained at the heart of what became the strategic air campaign of Operation Desert Storm. Overthrowing or killing Saddam Hussein was not a declared objective, but many of the key air planners hoped and believed that concentrated air operations against the regime's power base would facilitate the Iraqi leader's departure by either coup or popular revolt.

The American objectives in the current crisis over Iraq seem to have a dual purpose. There is the *political* aspect of disarming the regime, ensuring the free flow of oil at reasonable prices and fighting terrorists, but there is also the intertwined *ideological* aspect of developing democratic movements in Iraq which might in turn lead to more representative governments in the Middle East. Still, it is often argued that the common denominator is changing the Iraqi regime, and it might well be a declared objective if there is another war.

This paper seeks to explore Colonel Warden's theory for applying air power against an adversary's leadership by analysing Saddam's political power structure. It is an attempt at understanding the Iraqi regime's strengths and weaknesses by reviewing how effective the bombing of the Iraqi leadership was in Operation Desert Storm based on Iraqi perspectives.[2]

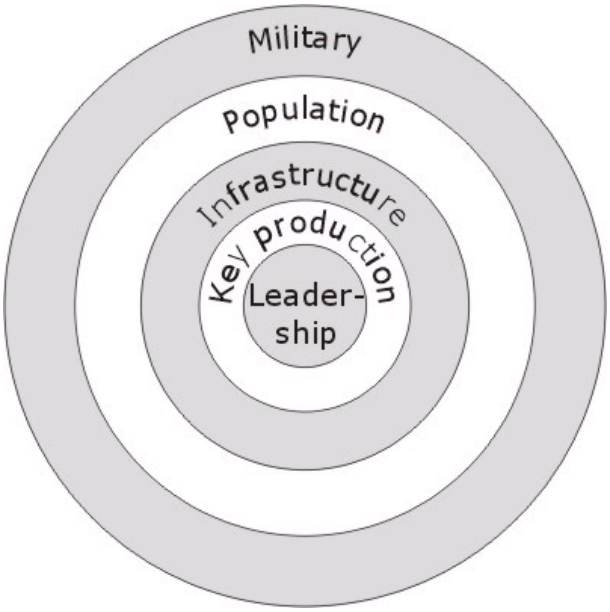
The Five Rings Model and the Time Value of Action

While a student at the National War College in 1985-86, Colonel Warden wrote a paper entitled "The Air Campaign: Planning for Combat", in which he focused on translating national political objectives into theatre campaign plans. Some two years later he expanded from the operational level of war to the strategic in an internal Pentagon memorandum called "Centers of Gravity – The Key to Success in War", in which he articulated a concept for describing the modern state as a "system of systems". It was the genesis of the Five Rings Model, which became the theoretical foundation for the first phase of Operation Desert Storm.

Colonel Warden argued that one could analyse the enemy as a system by organising the state and the society into five concentric circles. The centre circle was defined as the political decision-making apparatus and its ability to command, control and communicate. It was the state's national leadership, the collection of individuals with the power invested in them to initiate, sustain and terminate wars. It gave the state its strategic direction and helped it respond to external and internal changes. Warden equated the leadership of a state to the brain of a human body: It was the most important organ, generating and controlling all physical motions. Surrounding this core he identified the second circle as the state's energy facilities - oil, gas and

[2] This paper was presented at the Royal Norwegian Air Force Academy, 22 January 2003. Parts of the essay is derived from John Andreas Olsen, "The 1991 Bombing of Baghdad: Air Power Theory vs Iraqi Realities", in Sebastian Cox and Peter Gray (ed.), *Air Power History: Turning Points from Kitty Hawk to Kosovo*, (Frank Cass: London, 2002), pp. 258-286.

electricity - the organic essentials with the function of converting energy from one form to another. The third circle contained the state's infrastructure, primarily industry and

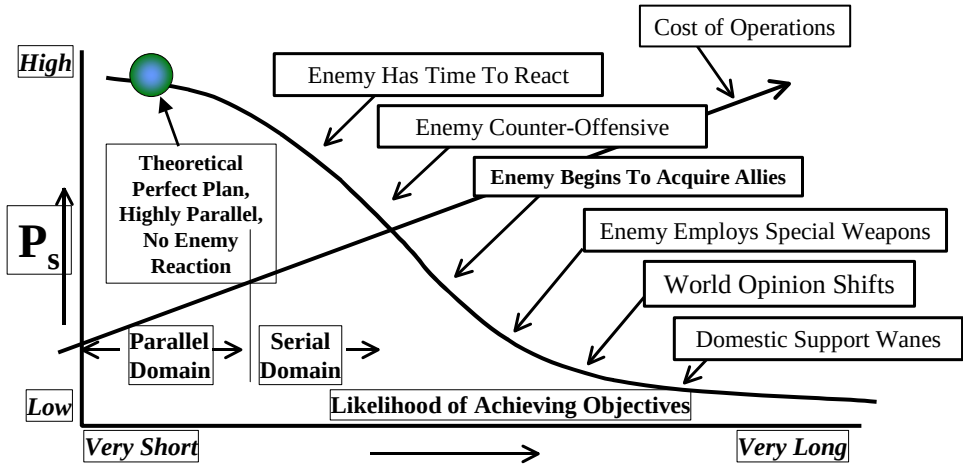


The five rings model

transportation links such as roas, bridges and railways, the instruments that kept a society interconnected and enabled mobility and movement. The fourth circle was the population – the very citizens of the state. Unlike Giulio Douhet, Warden did not find it morally acceptable to target the citizens directly with anything but psychological means. The final ring was the state's fielded military force, the entity whose purpose was to protect the state and society from external aggression. Warden argued that traditionally the fifth ring had been at the centre of struggle, where huge armies fought against each other, moving towards the cumulative clash on the battlefield.

Moreover, in order to determine the accurate identification of the critical vulnerabilities within each ring, Warden proposed the further breakdown of each ring into five sub-rings based on the same structure, until the true centre of gravity was disclosed. When these targets were struck, the enemy system would be incapacitated through the rapid imposition of either total or partial paralysis. The intention was to create so much confusion and disorder in the enemy system at the strategic level that it would react inappropriately to American activities that appeared simultaneously.

In Warden's mind the four outer rings should be attacked only as necessary to expose the leadership ring to offensive action. The priority given to the "inner ring" resulted in terms like "inside-out warfare", "bombing for [political] effect" (every bomb is a political bomb) and "parallel warfare" (near-simultaneous attacks upon the strategic centres of gravity throughout the entire theatre of war). Warden argued that it is all-important to be aggressive, putting immense pressure on the leadership from the first bomb dropped, and keeping up the momentum until it is paralysed. Instant Thunder was presented as the very anti-thesis to Rolling Thunder in Vietnam, which essentially suggested an incremental strategy. Warden argued that if the war is prolonged the enemy would be able to develop counter-offensives, he



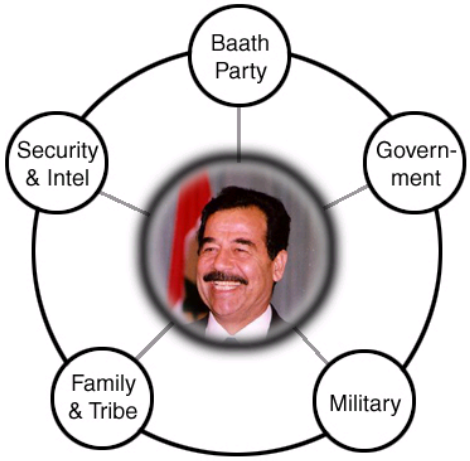
Time to Attack Enemy Centres of Gravity

would be able to acquire allies and he would possibly exploit special weapons. In the meantime world opinion could shift and domestic support could wane. Thus, the longer the

war lasted the more it would cost in terms of money and casualties. Decisive force from the opening moment of war was therefore the key to success.

By going for the leadership directly, attacking several target-sets in parallel, hard and fast from the opening moment of war, Warden argued that one could achieve strategic paralysis of the state's war-making capabilities with decapitation as one possible outcome. Thus, he did not argue a "decapitation strategy" per se, but a larger strategic air campaign in which "decapitation" was but one element. He stressed that the advent of stealth technology, long-range aircraft and precision targeting made it possible to translate this theory effectively into practice. He favoured carrying the war to the enemy's state organisation (system warfare), rather than to the enemy's armed forces (military warfare), and the selection of targets would make sure that one rendered the enemy's strategy and decision-making irrelevant. In order to be successful, however, Warden emphasised that "military objectives and campaign plans must be tied to political objectives *as seen through the enemy's eyes, not one's own*". In effect, he argued that one could defeat a state without seeking to destroy its forces in the field. The occupying forces were therefore only a manifestation of the real problem, which resided with the leadership that ordered the occupation in the first place. Consequently, the purpose of war was not even to defeat the enemy's ground forces, but to force the decision-makers to do one's own will.

In order to evaluate the applicability of this philosophy a closer look at the regime that the air campaign sought to incapacitate in 1991 is required. One needs to take a close look at what Warden defines as the "inner ring" – the Iraqi leadership and its power structure.



Saddam's Political Power Structure

Saddam's Power Base

Saddam depends on the multiplicity of five overlapping sources of authority that protect him and his family from the Iraqi population and foreign intervention. In essence Saddam combines the instruments of power found in the Baath Party organisation, the government
structure, the military apparatus, the tribal and family connections and the security and intelligence network.[3]

1. The Baath Party

When the Baath Party came to power in July 1968, its leader, Ahmad Hasan al-Bakr, decided that party loyalty was an insufficient basis for trust and longevity. He became convinced that he needed to rely on family ties to secure his grip on power, and at the time nobody seemed better suited for the job as his deputy and vice president than his distant cousin Saddam Hussein. The thirty-one year old relative was dynamic, efficient, brutal and determined. He had an extraordinary memory and soon proved capable of accumulating an immense amount of factual details coupled with an intuition for regime survival. Saddam immediately took upon himself the unpopular job of running the internal security apparatus *(Jihaz Hanin),* and by working behind the scenes with intrigues and deception he strengthened his own position over the decade. Control over the *Jihaz Hanin* security unit allowed him control over the key elements of the party organisation, and in turn, by manipulating the ruling party's decision-making organ he was able to control the Iraqi state by the early 1970s. Saddam managed to build a protective ring around the leadership and in the process he turned Iraq into a one party state. Children were encouraged to tell on their parents, teachers to inform on their colleges and factory workers to survey each other. Surveillance was institutionalised, and according to Kanan Makiya's book, *The Republic of Fear*, by the late 1980s an estimated 2-4 million Iraqis were currently acting as informants. The Baath Party became the very basis for social and professional mobility, and Saddam subsequently brought the Iraqi armed forces under civilian control. Military officers would find it increasingly difficult to maintain a group identity separate from the party policy. Saddam and the Baath Party became inter-dependent: Saddam needed it to run day-to-day business and mobilise the masses, while the party came to regard Saddam as the main guarantor of its existence.

---

[3] For sources and further details on the Iraqi regime, see John Andreas Olsen, "Saddam's Power Base", *The Norwegian Atlantic Committee*, forthcoming, February 2003.

2. The Government Structure

Iraq has an interim constitution which provides separate legislative, executive and judicial branches and for the Revolutionary Command Council as the "supreme institution of the state". It provides no reserved place for the Baath Party within the state, but in reality each ministry is co-ordinated and supervised by the respective bureau within the party. At every state level, the state bureaucracy has its party counterpart, a shadow administration, and in essence, it is with the latter the real power of decision lies.

Generally speaking the respective party bureaus are more powerful than their governmental counterparts, but there are three ministries that are of particular importance to regime security. The first is the Ministry of Defence. Although strongly supervised by the Military Bureau in the Party, the Iraqi armed forces are under the command of the Minister of Defence. That position has often been reserved for inhabitants of Tikrit, which is the area where Saddam was raised, or at least for somebody from a tribe closely related to Saddam's albu-Nasir tribe.

The Ministry of Information is also an important part of the regime because control of information has been one of the hallmarks of the regime. Newspapers, radio channels and television companies know what they can and cannot present, and its overall focus is to present the president as connecting to all layers of society. He is the Bedouin, the farmer, the general and the politician. The ministry has close links with intelligence agencies and takes part in surveillance and manipulating media events in Iraq. The Ministry of Information controls the propaganda apparatus and is Saddam's mouthpiece in what remains a very closed society.

The third ministry of real significance to domestic regime security is the Ministry of Interior. It plays an important part in the massive informative system that encourages reports on neighbours and colleagues. It is closely connected to the Party and the secret police, *Amn al-Amm*. The latter report directly to the president's headquarters, rather than to the Ministry of Interior, but there is a considerable level of overlap. The omnipresent national police, in its own right a considerable force, comes under the authority of this ministry.

The Iraqi state system, drawing upon huge oil reserves, plentiful water sources and one of the largest populations in the Middle East, has through its apparatus whereby it controls its population very considerable depth and stamina, as was demonstrated in 1991. A party and government system that restrains collective and individual freedom may be regarded in western societies as weaknesses, but in terms of ensuring the security of individuals, party and overall control of its population the system is both deeply entrenched within Iraqi society and possesses formidable powers of repression.

3. The Military Apparatus

Alongside the duplicated party and state systems is the military. As president, Saddam is the field marshal of the Iraqi armed forces, which are estimated to number 430,000 officers and men. The Army is the largest of the services with about 320,000. The elite force, with its direct personal and political loyalties to Saddam and the Baath Party, numbers about 65,000 – 70,000 in total. The Iraqi Air Force is estimated to 20,000, the Iraqi Air Defence Command around 17,000 and the Iraqi Navy about 2,000. In addition, Iraq still keeps a reserve force of an estimated 600,000 men that can be fully mobilised within weeks, although their roles will most likely be to deploy along trenches, conducting stationary objectives.

The command structure of the regular army is highly centralised into four regional commands that cover Iraq's eighteen provinces (*Muhafazat*). The Iraqi ground force system is designed so that the regular army serves as an outer shield against foreign threats, border disputes and internal revolts within the Northern, Southern and Central Euphrates regions, while the Republican Guard serves as a second shield within the Central Region - serving as a buffer between the regular army and Baghdad. Within Baghdad the Special Republican Guard and a range of security and intelligence agencies serve as the third shield of defence. This is in part the key to Saddam's power, the policy of divide and rule, specifically a series of checks and balances with reference to the only institution physically capable of overthrowing individual and party.

In 2002 the Iraqi Army was divided into five corps, which mustered three armoured, three mechanised and eleven infantry divisions: the Republican Guard field force was divided into two corps with three armoured, one mechanised and two infantry divisions. The armoured and mechanised divisions had about 300 and 175 tanks respectively, and all divisions numbered roughly 8,000-10,000 men. In rough terms the Iraqi ground forces had 2,300 main battle tanks (1,500 T-55s and T-62s and 800 T-72s); 2,000 towed artillery units; and around 3,000 armoured personnel carriers. There were nearly three hundred helicopters, of which half were gun ships, under the command of the Army Aviation.

Both the Iraqi army and the Republican Guard have been essentially halved in numbers since 1991. In that conflict the army formations were hounded and humiliated, but the better-equipped Republican Guard formations possessed of a mobility that the majority of army divisions lacked. The Republican Guard was largely successful in the conduct of withdrawals and fought reasonably well in combat. It has since 1991 been reduced from over 120,000 officers and men to six divisions. In late 2002 the chief of staff, Lieutenant General Sayf al-Din Fulayyih Hassan al-Rawi, a Sunni-Arab whose family hails from Rawa, north-west of Baghdad on the Euphrates, was responsible for general and operational matters, while Major General Kamal Mustafa Abdallah al-Sultan, the secretary of the Republican Guard, Saddam's parental relative, was responsible for all administrative affairs.

In addition to the regular army and the elite Republican Guard forces, the Iraqi regime relies on a range of paramilitary forces. *Fedayeen Saddam* (Saddam's Martyrs) was established in 1995 under the leadership of Uday, consisting originally of a youth gang with thugs from the age of 16 and upward. It has since expanded, recruitment has become more organised and training more professional under the command of a former Air Force officer, General Muzahim Sab Hasan, from Saddam's tribe. Although not on a par with the Republican Guard and the Special Republican Guard, it is now a force that can be reckoned with as yet another counterweight in Saddam's game of checks and balances. Its missions range from assisting the local police, combating crime and quelling civilian unrest to counter-insurgency operations. Its members have become very important in the reign of terror, which is characteristic of the incumbent regime, and its loyalty to Saddam is very real.

4. The Tribal, Clan and Family Connections

The fourth instrument of power is the tribal, clan and family links. Saddam has found it necessary to fill the Baath Party, the administration and the military with people he could trust. Baath ideology was secular and stressed the separation of mosque and state, but gradually throughout the 1980s Saddam reintroduced tribal and Islamic values to strengthen the regime's grip on power. Party ideology stressed socialism, modernity and anti-tribalism, but the regime chose to include tribal affiliations for security reasons.

In the early 1970s the Iraqi sociology expert, Hanna Batatu, observed that “the Takritis rule through the Ba’th party, rather than the Ba’th party through the Takritis”. Thus, “to depend on a tribe is a thousand times safer than depending on the government, for while the latter defers or neglects oppression, the tribe, no matter how feeble it may be, as soon as it learns that an injustice has been committed against one of its members, readies itself to exact vengeance on its behalf”. Iraq has a substantial Bedouin culture with major tribes in the hundreds, which break down into ten times as many smaller clans. The largest tribes have more than one million members and the smallest a few thousand. Saddam himself was born in Ouja, outside Tikrit, and he comes from the rather small albu-Nassir tribe. The tribe amounts to 25,000 - 30,000 members, but has allied itself with other tribes, and most of these are located in the so-called Sunni Triangle, which is between Baghdad, Ar-Ramadi and Samarra. This geographic area is Saddam’s stronghold, and the principle of patronage through tribal links provides the social cohesion needed to run this unofficial system.

A Sunni Arab elite runs Iraq, although such a group represent a minority. Saddam chooses Sunni Arabs and, critically, men from these key tribes to run the different state and party organisations: The most important positions in the Republican Guard, the Special Republican Guard and other security forces are all but reserved for members of the select tribes and families. The appointment of virtually all senior commanders from such a small part of the overall population would seem to have unfortunate consequences as far as military effectiveness is concerned, but the process has ensured personal loyalty and dependence.
As with the Baath Party, the government structure and the military apparatus, the sheikhs and their tribe act as both a buffer and a link between Saddam and ordinary Iraqi individuals.

5. The Security and Intelligence Network

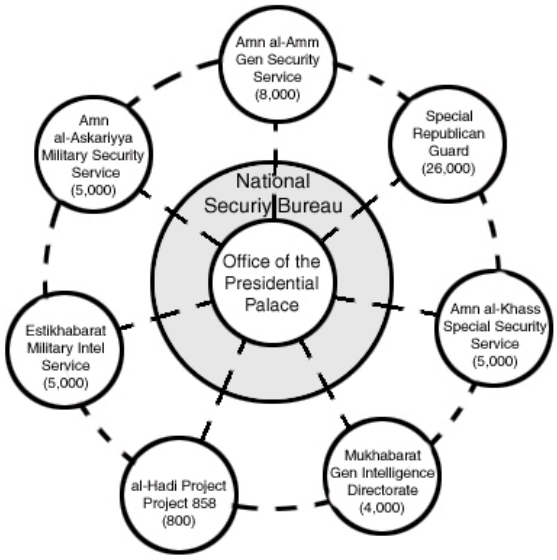
The layers of party and state control, the area, tribal and family structure and the extended tribal connections, with power evermore concentrated in the hands of few individuals of proven personal loyalty, are the very essence of the Saddam Hussein system, the “rings within rings”, whereby personal authority has been maintained over more than three decades. But alongside all these, indeed a part of this system of overlap and duplication, is a security and intelligence network of supervising organisations, and this has been critical in maintaining the regime. Together with the Baath Party security agencies, the Ministry of Interior and its police force and certain aspects of the military and paramilitary apparatus, this highly secretive shadow network watches all aspects of society and reports directly to Saddam.

The security and intelligence network consists of no fewer than seven separate organisations that report directly through the National Security Bureau to the Office of the Presidential Palace, which is run by Saddam’s second eldest son, Qussay, and Saddam’s highly trusted personal secretary, a Tikriti sheikh from Saddam’s tribe, Lieutenant General Abd al-Hamid Mahmud. These are the second and third most important figures in Iraq because they control every access to Saddam and have the authority to override government and party decisions.

The Special Republican Guard

The Special Republican Guard was established in 1981 and substantially expanded by 1985. Its mission is to defend Baghdad proper, the three main approaches into the capital (north, south and west) and Tikrit. It is an elitist military security force, which is trained to fight in built-up areas against infantry and tanks alike, armed mostly with light and medium weapons, but it also has two tank battalions (70-90 T-72 tanks), three artillery batteries and three air defence batteries. The core of the Special Republican Guard is believed to add up to four motorised infantry

brigades with 14 battalions. Most of the officers and soldiers in the Special Republican Guard are recruited from Saddam's albu Nassir tribe, his hometown of Tikrit and neighbouring and friendly tribes and towns. They are allegedly brought to the capital when 15-19 years old, and as they are given extensive privileges, combined with indoctrination, they become extremely loyal to Saddam. It includes altogether around 20,000 - 25,000 people,
and its commander in 2000 was reportedly Major General Khayr Allah Wahid Umar from the albu Nasir tribe.



Saddam's security and intelligence network

Jihaz al-Amn al-Khass (Special Security Service)

The organisation was established in the second half of the 1980s by Saddam's parental nephew and son-in-law, the late Hussein Kamel. It is currently the most prestigious and important security organisation, being tasked with the personal protection of Saddam, his immediate family and certain selected individuals. Amn al-Khass has the most educated men in the security system and is also responsible for the concealment of weapons of mass destruction and scientific documentation. It is all but exclusively recruited from the towns of Tikrit, Huwayja and Samarra. Qussay has headed Amn al-Khass for over a decade and its members are considered extremely loyal to the regime. The organisation's responsibilities have been summarised as the provision of Saddam Hussein's personal security at all times, the securing of all presidential facilities such as palaces, homes and offices, and the supervision of all other security and intelligence services including the Republican Guard and the Special Republican Guard. In addition, it is responsible for the monitoring of all government ministers, senior officials in the Baath Party and the top echelons of the armed forces; the supervision of all internal security operations against potential Kurdish and Shia opposition; the purchase of foreign arms and technology; ensuring the security of the most important of Iraq's defence industries; and seeking to conceal Iraq's weapons of mass destruction programmes. It is the elite security organisation within an extensive security and intelligence organisation, and its responsibilities for regime security are matched by its authority to call upon both the Republican Guard and the Special Republican Guard for backup and military reinforcement, in addition to having its own rapid reaction brigade.

Amn al-Amm (General Security Service)

The third security agency is Amn al-Amm - the secret police force. It was until the late 1970s part of the civilian police force, which reported to the Ministry of Interior, but has since been separated and report directly to the Office of the Presidential Palace. Its main activities are to detect dissent among the Iraqi general public, react to political "criminal behaviour", and prevent economic criminal activity. It monitors the day-to-day activities of the population with pervasive local presence. As with Amn al-Khass, it maintains extensive files of large parts of the population: Birth and marriage certificates and general *curriculum vitae* of education and interests. The agency co-ordinates and overlaps its activities with the general police and the Baath Party as far as the informer system is concerned. Its main office is in Baghdad, but it has a branch in each of the eighteen provinces. Amn al-Amm is also allegedly responsible for operating the notorious Abu Ghuraib prison outside Baghdad where many of Iraq's political prisoners are held. In addition, in recent years the various provisional governors have been allowed as a separate line of defence: An instrument of personal rule through a quasi-military organisation, numbering about a thousand men, selected on the basis of personal and political loyalty and reliability. In most cases the governors are retired army generals.

Mukhabarat (General Intelligence)

Mukhabarat evolved from the *Jihaz Hanin* and is now Iraq's most important intelligence organisation. Its commanders have tended to be recruited from the Salah ad Din province, and two of Saddam's half-brothers have played a vital role in its development. This organisation was crucial in curbing the Baath Party and ensuring Saddam's control of it, and it has continued to monitor the members of the party. However, its main task, which has involved working with the party, has been to monitor and act on opposition abroad. Mukhabarat is organised into four district commands under the command of Tahir Abd al-Jalil al-Habbush: Basra (south), Mosul (north), Ramadi (west) and Karbala (east). The organisation is regarded as being very loyal to the regime. Its internal responsibilities are monitoring the Baath Party, other political parties and grass root organisations for youth, women and students; suppression of Shia, Kurdish and other potential opposition groups and individuals within Iraq; monitoring Iraqi embassies and foreigners in general in Iraq; and maintaining an internal network of informants. Its external activities include monitoring Iraqi embassies abroad and collecting overseas intelligence; aiding opposition groups in hostile countries and conducting sabotage, subversion and terrorist operations against hostile neighbouring countries such as Iran and Kuwait; infiltrating Iraqi opposition groups abroad with a view to controlling or disrupting their activities and the elimination of individuals; the manipulation of news in the interest of the regime; and maintaining an international network of informants, using popular organisations such as the Union of Iraqi Students.

Al-Istikhbarat al-Askariyya (Military Intelligence)

The agency was part of the armed forces and reported to the Ministry of Defence until the late 1980s when it became a separate institution, reporting directly to the Office of the Presidential Palace. While most of the organisations within the security and intelligence network are headed by Tikritis, al-Istikhbarat al-Askariyya has normally been headed by non-Tikritis, albeit drawn from the Sunni Triangle. Its responsibilities are tactical and strategic reconnaissance of regimes hostile to Iraq; assessing threats of a military nature to Iraq; monitoring the Iraqi military and ensuring the loyalty of the officer corps; maintaining a network of informants in Iraq and abroad, including foreign personnel and military human intelligence; and protection of military and military-industrial affairs. Its primary function is ensuring the loyalty of the military and gathering military intelligence, but it is also believed to involve itself in foreign operations, including assassinations of opponents to the regime, and maintaining a network of informants in neighbouring countries.

Amn al-Askariyya (Military Security)

Saddam was clearly disappointed with the performance of the regular Iraqi army during Operation Desert Storm, and particularly the large-scale desertion prior to the ground war. Moreover, in the immediate aftermath of the campaign there were a couple of attempted coups. Such personal and political unreliability led in 1992 to the creation of a separate unit tasked with ensuring the reliability of the army and which would report directly to the Office of the Presidential Palace. The assigned responsibility for Amn al-Askariyya has since been detecting and countering dissent in the Iraqi armed forces, investigating corruption and embezzlement within the armed services and monitoring all formations and units in the armed forces. Like other agencies it has its own rapid response brigade. Its officers are all party members, and many of the Army, Republican Guard and Air Force officers have been arrested and even executed on the basis of reports provided by this unit. Occasionally Amn al-Askiryya forces officers to serve as agent provocateurs in trapping colleagues.

Al-Hadi Project (Project 858)

This organisation is responsible for electronic surveillance: It collects raw data, and processes and distributes the information to the relevant organisations for further action. Its headquarters is located at al-Rashedia, about 20 kilometres north of Baghdad. Al-Hadi has five other ground collection stations distributed around Iraq, and was instrumental in monitoring the communication lines that the Iraqi National Congress established in Erbil. In late 1995 Iraq banned direct-dial international telephone service, forcing all calls to be routed through an operator-assisted telephone exchange at al-Rashedia. A committee that includes personnel from Mukhabarat, Estikhbarat and Amn al-Khass evaluates recordings of the calls.

The *raison d'être* of these organisations was, is and remains the security of the regime and enforcing its *will* upon the Iraqi population. Saddam rules through terror and fear, and there is an inter-dependence between him and these security and intelligence organisations. The latter owe their positions to him, and as often as not, they have been deeply implicated in some of the worst excesses of the regime. It requires little in the way of imagination to divine the likely fate of many of the members of these organisations at the hands of a vengeful population in the event of the collapse of the regime.

The Five Ring Model vs. Iraqi Realities

In assessing how effective the strategic air campaign was against the regime in 1991 one must first of all realise that the percentage of strikes against the leadership was relatively small compared to the overall air campaign. For example, the targeting of the leadership and its command, control and communication apparatus counted for some 840 strikes, while the ground forces were subject to more than twenty-three thousand. Nonetheless, an estimated sixty percent of the attacks against leadership and C^3 were precision strikes. There was therefore a disproportionate amount of attention focusing on leadership targets in Baghdad - an otherwise statistically minor part of the overall air war. Over 90 per cent of the targets attacked in the first seventy-two hours fell into the original Instant Thunder categories, and the timing also remained largely faithful to the original concept. Among the leadership targets that were eventually bombed were presidential palaces and bunkers, the Ministry of Defence and other government buildings, intelligence and security headquarters, Baghdad conference centre and Baath Party command posts. Among the C^3 targets were television towers, satellite communication stations, transmitters and receivers, microwave radio relays, fibre optic and coaxial landlines. One witnessed the unprecedented combination of stealth, precision and standoff weapons wherein the purpose was to disrupt the "central nervous system" and weaken Iraq as a strategic entity. After

the first night of operations the Iraqi air defence system was substantially degraded, the Iraqi aircraft did not challenge Coalition control of the skies, the national power grid was severely disrupted, Baghdad's ability to communicate with the outside world was reduced and there was relatively little collateral damage. From the early moments of war, the Iraqis possessed *no effective* defence against attacks on their military and civil infrastructure. All the five rings with the exception of the fourth, the population, were systematically bombed.

Another caveat when determining the effectiveness of the strategic air campaign is that one must account for the interchanging effects of the other phases of the war, and the diplomatic and economic factors that played their part. This is an immensely comprehensive task, including non-linear effects and intangibles that are open to multiple interpretations, but there are nevertheless some lessons that can be drawn.

Interviews with Iraqi officers suggest that the communications between Baghdad and the military forces occupying Kuwait were never completely severed. Iraq had modern computerised equipment with high levels of redundancy, relying as it did on coaxial lines, multiple landlines, fibre-optic lines and microwave relays. The Iraqi leader furthermore relied on face-to-face meetings with his staff, couriers on motorcycles and pre-delegated orders. Moreover, relevant equipment had been transferred and many of the headquarters that were bombed were either relocated or evacuated prior to the air war. The Ministry of Defence staff was moved to the Ministry of Youth building, parts of the Office of the Presidential Palace were moved to the Ministry of Central Planning and files and computers were placed in schools and hospitals.

Senior officers and officials also seemed to be safe. The Iraqi leadership avoided meeting in bunkers and headquarters that were potential targets and Saddam Hussein himself operated mainly from residential houses and regional ad-hoc headquarters in the outskirts of Baghdad. He allegedly met his military and political leaders on a regular basis throughout the war in farmhouses or ordinary homes - places they knew would provide them with safety. When Peter Arnett interviewed the Iraqi leader on 27 January they met in a modest residential house. The same was the case when Yevgeni Primakov came to the capital. Indeed, Saddam Hussein could never have been completely isolated from the outside world, because he relied on a network of unofficial channels of diplomacy with regional state leaders. This kind of information, when accounted for separately, may lead to the conclusion that the air campaign's focus on the national authority facilities was a waste of sorties, but a different interpretation surfaces when accounting for the aggregated effect.

The inconveniences ensured that the Iraqi leadership needed to spend a lot of time and energy on provisional and less effective solutions. Secondary and tertiary command posts are less suited for crisis management than the primary facilities per definition. The Iraqi elite was for example deterred from using cellular phones, depriving them from real-time and mobile communication. The bombing of a variety of communication links forced the Iraqi leadership to resort to far less secure means of communication, such as walkie-talkies, that could be monitored easily. While radio broadcasts continued throughout the war the transmission was on wavelengths that could not be received throughout the whole of Iraq. The reduced connectivity resulted in insecurity and passivity in the leadership and distribution problems within the theatre of operations. There was essentially enough food and clothes in Kuwait to provide for the Iraqi forces, but they were not able to distribute them effectively. Relocation to secondary command posts made it more difficult for the Iraqi leader to keep track on key personnel, which in turn loosened his otherwise tight control of the regime. Saddam Hussein was also more vulnerable to attack, as he often travelled incognito and alone, rather than with large escorts of bodyguards. The secret police

seemed to be more occupied with staying alive than protecting the regime, as some of its guards chose to abandon the jails and headquarters at night out of fear of being bombed. Some even witnessed apathy already by late January. Witnesses claim that Baghdad was essentially a vacuum during the opening days of war, but since there was no organised opposition group with a base in Baghdad there was no serious thought on how to take advantage of the situation. Saddam Hussein may well not have continuously feared for his life during the opening days of the war, but he had to take extraordinary measures to protect himself, and thus his ability to direct the war-effort was hampered.

The bombing certainly left parts of Baghdad with an impression of precision targeting. Although there were collateral damage incidents, large parts of the population who had evacuated Baghdad in the early days of the bombing returned to the city after a week or two. One would constantly behold children and adults of all ages running to the rooftops to actually watch the bombing of military and political regime targets. It has been claimed that the Battle of Britain and other strategic bombing campaigns strengthened the resolve of the people, but the opposite might be the case for Baghdad. After years of suppression many would have welcomed a change, and when the de facto bombing indicated that the regime rather than the people was the target one might argue that the Iraqi people accepted occasional collateral damage. One should not conclude that this phenomenon is universally applicable, because in the Iraqi case there seems to have been a real discrepancy between the ambitions of the leader and the citizens. The bombing provided pressure from the air, but again, without organised opposition on the ground, or any efforts from the Coalition's state departments to facilitate an overthrow, the one-sided pressure would be inadequate to change an entire leadership. Nevertheless, attacks on regime targets demonstrated that the leadership was unable to defend itself, and as it was at the mercy of its adversary there followed a certain loss of confidence in the leaders. Not bombing regime targets when weapons allowed for precision attacks would definitely have indicated lack of resolve and commitment per se on the Coalition's part.

Communication on the tactical level was possible throughout the war, but the Iraqi leader was deprived of the strategic picture. According to Yevgeni Primakov the Iraqi leader was genuinely surprised at how bad his situation was when he received the satellite imagery on 12 February. One may ask, however, whether that was a result of reduced communication or whether Saddam Hussein's men chose not to present their leader with "bad news". Saddam Hussein was after all known to shoot the messenger, but this perception should not be taken too far. According to General Wafiq Samarrai, former Chief of the Military Intelligence, the Iraqi leader was more likely to execute somebody who proved to be withholding important information. Thus, if bad news was kept away from the Iraqi leader, and that information next proved important for timely decision-making, the official stood no chance at all.

Another example of problems created by the bombing of communication facilities is found in the memoirs of the Iraqi Missile Commander, Lieutenant General Hazim Abd al-Razzaq al-Ayyubi, who during the first three days of the air operations went without a single hour's sleep. He argued that his Scud team had numerous technical problems because of reduced connectivity. Combined with the time and resources devoted to camouflage and concealment the number of launches was far less than what the Iraqi leader had requested. Saddam Hussein placed great emphasis on launching Scuds against Israel, but after the first week his team was unable to launch more than twenty missiles against its "arch enemy". Given the fact that Saddam Hussein had pre-delegated orders for continued and massive strikes one may observe that the reduction in Scud launches had more to do with the second-order effect of communication-links being destroyed and the Scud hunt inducing stress, than inadequate leadership per se on the Iraqi part.

As was the case for many other Iraqi generals, Al-Ayyubi received the information about unconditional withdrawal on the commercial radio rather than through the military command system. This was also the case for the Iraqi representative to the UN Security Council, Abdelamir al-Anbari. Both cases indicate a rather isolated elite without the ability to communicate with key diplomatic and military players both inside and outside Iraq. According to General Wafiq Samarrai the Coalition attacks on communications, combined with attacks on electricity, substantially degraded efficiency in the Iraqi command system. The bombing of Baghdad made rapid co-ordination of forces inside Iraq very difficult. The Department of Defense's report to Congress stated that the air strikes on the Iraqi leaders and national communication targets more or less paralysed Iraq's ability to direct battlefield operations, and Saddam Hussein was genuinely surprised that air strikes could be so accurate and devastating. Although the Iraqi leader was able to broadcast statements regularly on certain radio frequencies, he was deprived of using the television, his favourite media, to communicate with the Iraqi people. According to Saad al-Bazzaz, the author of the "official" Iraqi account of "the Mother of All Battles", Saddam Hussein believed that persistent and flattering television coverage played an important role in keeping him in power. By executive order, his name and image had to be incorporated into every programme on the non-religious channel, with the exception of night movies and cartoons. During the Gulf War he was not able to use this media, and combined with Western radio broadcasts from Saudi Arabia, the effort undermined his power by sheer lack of presence. Some of the Iraqi officers who eventually took part in the uprising against their leader argued that they did so partly because they believed he had been unseated. In war it is exceptionally important to have a leader who motivates, encourages and gives hope. In the Iraqi case the people and the military forces were left with no such comfort. Thus, the reduced communication between the Iraqi leader and the forces in Kuwait might well have played an important part in de-motivating and de-moralising Iraqi troops who chose to surrender before or immediately after the ground war started.

One is reminded of Sun Tzu's dictum that the most successful strategy is to attack the enemy's plans. The strategic bombing played its part in making it difficult for Iraq to adequately adapt to changing circumstances as it weakened and confused its management. In a unique article Saddam Hussein acknowledged that the Iraqi strategy anticipated a huge infantry battle in which the United States' superiority in weapons and military technology would be made irrelevant. Saddam Hussein stressed that the Iraqi strategy was one of prolonging the war "to force them [the US led Coalition] to fight us face to face and not just fire from a distance". He argued that "long-range firing" could not "end a battle decisively". Several aspects of the air campaign ensured that a bloody ground battle did not become necessary, but the fact that Saddam Hussein started preparing for an occupation of al-Khafji only a few days into the strategic air campaign indicates that he became convinced that his strategy of merely sitting out the bombing was not working. The decision to invade was taken before the bombing of Iraqi forces in Kuwait had started in earnest, and the attempt to jump-start the ground war by moving into Saudi Arabia in late January was a clear indication of the Iraqi leadership becoming ever more desperate.

The picture that emerges is one in which the Iraqi leader's *will* became irrelevant, because he was prevented from taking decisive action. Many elements of Saddam Hussein's government were essentially forced to relocate and shift to back-up communications, the Iraqi leader's ability to communicate with his own population and military forces was considerably reduced and to make matters worse the ordinary Iraqis started criticising their leader openly. The Baath Party was not able to prevent an unprecedented level of desertion and its grip on power was substantially weakened. One might disagree on what triggered the Intifada, but the reduced

efficiency of the Baath Party made the uprising possible, and its officials became the focus of revenge. The systematic and precise bombing of Baath institutions seems to have changed the Iraqi people's perception of the Party as infallible, and as the Iraqis like to put it: *hajiz al-khawf inkasar* – "the barrier of fear was broken". The cumulative functional disruption, confusion and disorientation at the strategic level of command certainly undermined the effectiveness of the Baath Party to collectively deter a spontaneous revolt.

The strategic air campaign, in conclusion, contributed strongly in rendering the Iraqi leadership largely ineffective as a strategic entity. Together with the bombing of the Iraqi ground forces and the subsequent ground operations it played an important part in achieving the stated military and political objectives. In total there is circumstantial evidence supporting the claim that the bombing of Baghdad weakened the regime, but there is little to support the idea that the strategic air campaign came close to actually changing the regime on its own. The strategic air campaign was not able to exceed the minimum level required for a coup or a revolt to succeed in changing the Iraqi regime, but it contributed to putting so much pressure on the leadership that it decided to withdraw from Kuwait. Well-informed sources argue that the strategic air campaign would have had more leverage if the Special Republican Guard and the Special Security Service had been targeted. Additionally, one could have concentrated on Tikrit, which escaped bombing altogether, and a systematic targeting of the security network would surely have weakened the regime's grip on power even further. To suggest that a systematic air campaign against the de facto political power structure would have led to a replacement of the Iraqi leader would nevertheless be simplistic. The ability of human organisations to adapt to changing circumstances does not allow for such a direct cause-effect link.

Conclusion

War is always characterised by confusion, and the Five Rings System provides a starting point for rationality and simplicity for planners who have limited knowledge of both air power theory and the nature of foreign countries. According to the theory one seeks to change the opponent's energy level to make it compatible with one's own objectives. One seeks to change energy levels by looking at your opponent as a system and then affecting the centres of gravity necessary to produce the desired energy changes. The leadership will as such often if not always be an important centre of gravity, which it is desirable to attack. One must therefore focus first on the enemy as a system in the context of creating the better peace for which you have gone to war. In this way the Five Rings System provides the planners with a focus on the leadership that cannot be ignored when planning to win. Its utility is evident in the high degree of fog and friction that was induced into the Iraqi system at the strategic level of command. Although the leadership was not overthrown, the Iraqi decision-making capability and strategy were rendered largely inappropriate and ineffective.

The Five Rings System can easily be challenged as rigid, schematic and formulaic, but so can any model whose very purpose is to simplify the complexities of the real word. The model assumes that the centres of gravity are material, that they are subject to attack and that the enemy state is reasonably modernised, but the fact that the model is not universally applicable does not erase its utility as a conceptual framework. The model, when taken into the larger air power theory represented by Warden, contains prospects for future planning when used flexibly and with a comprehensive appreciation of the adversary's power structure. Further potential resides in dissecting the inner ring target-sets in detail at the same time as one looks beyond pure "utility targeting" and move into "value targeting". When the target-group has been selected one has to assess the adversary's vulnerabilities and values, and therein Maslow's study of the Hierarchy of Needs provides a framework for fundamental requirements of both individuals and societies. In

the words of Thomas Schelling “one needs to know what an adversary treasures and what scares him”. It might essentially be argued the Warden planning process should have been taken a step or two further.

Warfare represents a highly complex reality, and the best way to ensure success is to hold several models and strategies simultaneously in our minds, rather than relying on any single, inevitably simplistic, paradigm. One has to explore different scenarios, expanding the Warden thesis by combining it with other air power concepts into a synthesis on the one hand, and an analysis of the state’s political construct on the other. In order to do so one has to come together from different professional and academic disciplines and discuss how each part helps in reaching the post-war objectives. The Five Rings is not a blueprint for success in war, because there is no such thing, but it is a framework for thinking about air power in a social-cultural context. The model provides the planners with an option that might prove decisive in certain situations when combined with other elements of force. In an era of precision weapons of great quality the challenge is to translate precise bombing into precise effect on the regime, which one seeks to deter, compel or even change. The strategy for concurrent attacks by stealth and precision guided weapons does not guarantee that an adversary will be defeated quickly and with a minimum of casualties, but a highly discriminate focus on its leadership provides an air campaign with a unique leverage in meeting political objectives.

VAR SLUTAR KASHMIRKONFLIKTEN?

Sten Widmalm

När jag började studera kashmirkonflikten i slutet av 1980-talet beskrevs den oftast som ett mindre, lokalt uppror. Även om Indien och Pakistan då krigat om territoriet vid tre tillfällen sedan länderna blev självständiga var det få som då anade hur konflikten skulle komma att sprida sig. Idag är det möjligt att skönja en ny klyfta mellan Öst och Väst som löper rakt genom Kashmir. Den konflikt vars senaste fas pågått i nästan femton år har lett till en polarisering som gått från lokal till internationell nivå. Nu dras USA och möjligtvis Kina in i ett spel som knappast gagnar fred och utveckling i regionen. Samtidigt som EU betraktar händelserna i området med ointresse tar amerikanerna dramatiska initiativ för att säkra sin nya ställning i Asien. Denna utveckling ses på med oro från Kina. Finns det ingen gräns för hur långt konflikten kan sprida sig?

Om vi vill förstå hur konflikten mot slutet av 1980-talet uppstod så får vi inte glömma att demokratin faktiskt fungerade i den indienkontrollerade delen av Kashmir i slutet på 1970-talet och början av 1980-talet. Fria och rättvisa val hölls för första gången 1977 efter att Sheik Abdullah, ledaren för det största Kashmiriska partiet National Conference, ett par år tidigare slutit politisk fred med Indira Gandhi. Indira Gandhi och hennes Kongressparti besegrades och för första gången lättade centralregeringen på sitt grepp om delstaten. Anledningen till att den inte gjort det tidigare berodde mycket på konflikterna med Pakistan och att man helt enkelt inte litade på de muslimska befolkningens lojalitet gentemot det indiska nationalstatsprojektet.

Men uppenbarligen så upprätthölls goda etniska relationer så länge den demokratiska ordningen bestod i Kashmir. På lokal nivå samarbetade muslimska och hinduiska politiska grupperingar. Under denna period försökte dessutom Jammu Kashmir Liberation Front (JKLF) starta ett väpnat uppror men det gick helt enkelt inte eftersom medborgarna, enligt separatistorganisationens ledare Amanullah Khans egen utsago, var allt för upptagna med sina vardagsbestyr. Men när Sheikh Abdullah avled 1982 lämnade han ifrån sig ett parti som styrdes efter rent nepotistiska principer. Hans son, Farooq Abdullah, fick ta över ordförandeklubban men partiet var djupt splittrat i ledarskapsfrågan. Dessutom hade Indira Gandhi bestämt sig för att öka sin makt i regionen. Utan hänsyn till demokratiska principer avsatte regeringen i Delhi Farooq Abdullah från makten 1984 och Kongresspartiet gav istället sitt stöd till Abdullahs motståndare inom National Conference.

Så började vad som kan beskrivas ett dramatiskt förfall av de demokratiska institutionerna i Kashmir. I och för sig försonades kongresspartiets nya ledare Rajiv Gandhi med Farooq Abdullah i slutet av åttiotalet och dessa två samarbetade politiskt för att ta kontrollen över delstaten där all mer extrema och religiöst definierade partier fått fotfäste. Farooq Abdullah och Rajiv Gandhis samarbete innebar emellertid att ett omfattande valfusk iscensattes för National Conference och Kongresspartiet tillsammans skulle vinna valet i delstaten 1987. Det ledde i sin tur till att stödet för separatistorganisationerna ökade kraftigt - det demokratiska förtroendekapitalet konsumerades snabbt. När Farooq Abddullah till slut införde presscensur 1989 brast fördämningarna och stödet för separatisterna blev så starkt att centralregeringen fruktade att man helt skulle förlora kontrollen över delar av delstaten. Den indiska centralregeringen skickade i början av 1990 in både militär och säkerhetsstyrkor för att slå ner ett omfattande väpnat uppror. Särskilt säkerhetsstyrkorna gick hårt fram och kampen mot separatisterna började skörda civila offer samtidigt som det som fanns kvar av ett fungerande rättssystem kollapsade. Kashmir hamnade vid det här laget i en våldsspiral som politiska krafter tills idag ännu inte förmått bryta.

Utvecklingen under nittiotalet fram till 1998 kan sammanfattas i några få deprimerande punkter. För det första krävde konflikten under denna period ungefär 30.000 dödsoffer och det syntes inga tecken på nedtrappning av konflikten. För det andra fortsatte den indiska centralregeringen att utgöra den gemensamma fienden för separatisterna. Under ytan har emellerid splittring härskat. Å ena sidan har vi separatistorganisationer som rekryterat medlemmar främst i Pakistan och i viss mån Afghanistan som är mycket våldsbenägna och som inte visar några tecken på vilja till förhandling med den indiska centralregeringen. Enligt dessa grupper, t.ex. Lashkar-e-Toiba och Harkut-ul-Ansar, måste Kashmir helt frigöras från indisk kontroll och därefter överföras till Pakistan och på längre sikt bör hela regionen ingå i en ännu mer omfattande muslimsk statsbildning (det är oklart hur stor denna är tänkt att kunna bli). Å andra sidan har vi en rad organisationer som rekryterat sina medlemmar främst i den indienkontrollerade delen såsom JKLF och Hizbul Mujahedin. Det bör dock nämnas att Hizbul Mujahedin har haft en stark gren av rörelsen etablerad i Pakistan. Dock är det möjligt att skilja mellan den indienbaserade delen och den pakistanbaserade delen av denna organisation eftersom dessa två särskilt mot slutet av 1990-talet och början av 2000-talet uppvisat starka interna motsättningar. I vilket fall som helst kan man säga att de indienbaserade grupperna visat intresse för förhandlingar med den indiska centralregeringen - något som de pakistanbaserade organisationerna gjort allt för att förhindra. Slutligen har under denna period ingen tredje part givits möjlighet att medla i konflikten. Indien säger prompt nej. Pakistan säger ja men gör så rätt riskfritt för att kunna plocka politiska poäng på den internationella arenan samtidigt som man vet att Indien inte kommer böja sig i frågan och således har man inget att förlora på att uttala sitt stöd för medling.

Mycket förändrades när först Indien och sedan Pakistan genomförde kärnvapenprovsprängningar i maj 1998. Säkert var det den regeringskris som då drabbat den nytillträdda hindunationalistregeringen BJP som avgjorde valet av tidpunkt för provsprängningarna. Provsprängningarna var ett sätt att åtminstone på kort sikt skapa nationell enighet. Men BJP hade sedan läge aviserat att man vill satsa offensivt på landets kärnvapenprogram. I Sydasien var det som hände förväntat för de som läst dagstidningar och valpamfletter - i väst togs säkerhets- och underrättelsemyndigheterna däremot på sängen. Men nu kom Kashmirkonflikten in i en ny fas där den mellanstatliga konflikten mellan Pakistan och Indien kom att spela en allt större roll.

Bl.a. USA kritiserade båda länderna hårt för provsprängningarna. Under sommaren 1998 tilltog konfrontationerna mellan Indien och Pakistan utmed gränsen i Kashmir. Ett tag under den följande vintern stabiliserades läget men redan vid slutet av våren 1999 trappades konflikten upp igen. Grupperingar från Pakistan intog positioner kring Kargil - ett strategiskt viktigt område i den norra delen av den indienontrollerade delen av Kashmir. Indien inledde en större militärinsats för att återerövra området och snart var det fjärde indo-pakistanska kriget ett faktum. Det är inte så ofta vi hört massmedia benämna denna konflikt som ett krig, men det var det - åtminstone om vi med ordet krig menar en situation där en part aktivt försöker överta *de facto* kontrollerat territorium från en annan stat och där fler tusen människor dödas. Om "Falklandskriget" var ett krig så var även konflikten i Kargil det.

Det krävdes att president Clinton skulle kalla till sig Nawas Sharif för "samtal" för att konflikten skulle avbrytas. De pakistanska separatistgrupperna, vilka visade sig ha fått stöd från Pakistanska armén (enligt vissa uppgifter deltog delar av den pakistanska armén t.o.m. direkt i ockupationen av Kargil), drog sig tillbaka under sommaren men läget mellan Pakistan och Indien förblev spänt. Men nu gav USA allt mer ensidigt diplomatiskt stöd till Indien. Pakistan däremot hamnade på det diplomatiskt sluttande planet efter Kargil. Först utbröt en svekdebatt och den dåvarande militära överbefälhavaren i Pakistan ansåg att premiärminister Sharif hade svikit sina

män och landets ideal. Ett par månader senare försökte Sharif sparka överbefälhavaren men han, General Musharaff, svarade med en statskupp. General Musharaff fick en lång tid utstå kritik från värlssamfundet för att han tvingat tillbaka Pakistan in i militärdiktatur. Men det ändrades snart.

Händelserna den 11 september 2001 tvingade USA, som tidigare ensidigt satsat på ett diplomatiskt och säkerhetspolitiskt samarbete med Indien, att återuppta "vänskapen" med Pakistan. Pakistan behövdes nämligen i kriget mot Afghanistan. Indien betraktade USAs dubbla roll med skepsis men lärde sig snart utnyttja situationen för egna syften knutna till Kashmirkonflikten. Den 13 december attackerades det indiska parlamentet av separatister och Indien svarade med en massiv mobilisering utmed gränsen mot Pakistan. Budskapet var enkelt. Om USA hade rätt att attackera Afghanistan p.g.a. "terrordåd" så kunde Indien göra detsamma mot Pakistan. Indien satte därmed hård press på USA för att dessa skulle tvinga Pakistan att ge upp sitt stöd till separatisterna - om USA ville att stabiliteten skulle bestå i den regionen vill säga. Men även Pakistan lärde sig spelreglerna snabbt och svarade med att trycka på USA för att få Indien att minska vapenskramlet. Pakistan hävdade att om Indien mobiliserade utmed Kashmirgränsen tvingades Pakistan göra samma sak och då skulle Musharaff behöva dra bort sina trupper från gränsen mot Afghanistan. Detta låg naturligtvis inte i amerikanernas intresse eftersom all hjälp som var tillgänglig behövdes för att hålla koll på reterna av den flyende Talibanregimen och eventuella Al Qaida- anhängare. Under hela 2002 pågick ett livsfarligt spel mellan Indien och Pakistan som mobiliserade över en miljon man mot varandra i gränsen genom Kashmir, och USA som ngt slags "joker" (wild card) i mitten. Kärnvapenstyrkorna låg redo att påbörja massiva attacker mot några av världens mest tätbefolkade områden. Vi läste inte så mycket om det i media i väst eftersom vi var upptagna med Irakkriget - men Kashmirkonflikten var mycket nära vid flera tillfällen att skena till katastrofal omfattning.

Nu har läget stabiliserats något men vi är långt från att se början på en riktig fredsprocess som några nyhetsmedier, bl.a. BBC, aviserat. Spänningsnivån nu kanske mest kan liknas vid den strax före 11 september 2001. Men mycket annat har förändrats.

USA fortsätter att satsa på Indien vad gäller det diplomatiska och säkerhetspolitiska samarbetet. Stödet till Pakistan fortsätter troligtvis bara så länge USA ser det som nödvändigt för att behoven i Afghanistan. Vi kan tänka oss två scenarier här för framtiden. I det första "lyckliga" utfallet lyckas USA och andra länder stödja uppbyggnaden av ett demokratiskt Afghanistan. Det krävs nog samtidigt att även något liknande lyckas i Irak eftersom stabiliteten i hela regionen hänger ihop. Men lyckas detta så finns det goda förutsättningar för USA att utöva tryck på både Indien och Pakistan för att inleda en fredsprocess om Kashmir. En lösning vore att Indien och Pakistan får behålla de delar de *de facto* haft kontrollen över sedan 1948. Emellertid vore en sådan uppgörelse rätt svårsmält både för Genreal Musharaff som 1999 gav stöd till insatserna i Kargil så väl som för den som den sittande indiska hindunationalistiska regeringen som egentligen skulle vilja återta hela Kashmirområdet.

I ett mer deprimerande men också, åtminstone just nu, mer sannolikt scenario tappar USA kontrollen över Afghanistan eller Irak och därmed inleds ett slags kedjereaktion som gör att risken för ett mer omfattande krig ökar. Låt oss t.ex. anta situationen i Irak blir alltmer labil vilket i sin tur åter kräver stora militära insatser från framför allt USA. En ny amerikansk plötslig kraftsamling i Irak kan endast ske på bekostnad av insatserna i Afghanistan. Då kan grupperingar i Afghanistan som står i opposition till den nuvarande regeringen utnyttja tillfället för att genomföra något slags kuppförsök. Det i sin tur skulle kunna ge återverkningar för stabiliteten i Pakistan. Om det går så långt att General Musharraf tappar kontrollen över landet, ett inte alls

otroligt scenario med tanke på den labila situationen i dagens Pakistan, kan en upptrappning av Kashmirkonflikten sannolikt bli följden.

Vi ser idag hur USA dragits in som aktör som påverkar hela regionen på ett sätt som ingen lyckades förutsäga strax efter 11 september. Amerikanerna har emellertid en strategi för hela den region som i princip sträcker sig från Turkiet till Indien och den är expansionistisk. Man har upptäckt att det är svårt att enbart kontrollera delar av regionen och man vill nu satsa på att bygga upp en hegemonisk position. Och det går fort framåt. USA har idag något slags säkerhetspolitiskt samarbete som varierar mellan att man utbyter information till att man upprättar militära baser med stöd för flyg m.m. i bl.a. följande länder: Pakistan, Afghanistan, Irak, Kirgistan, Indien, Nepal, Tajikistan, Uzbekistan, Kasakstan, Armenien, Azerbajan och Turkmenistan. USA utövar dessutom starka politiska påtryckningar mot Iran. Dessutom bör vi komma ihåg den amerikanska närvaron i Kosovo, Bulgarien, Turkiet, Saudi Arabien, Kuwait, Qatar, Bahrain, och Oman. Intrycket är klart att USA dras allt djupare ner i en politisk kontext med oförutsägbara konsekvenser. Och oavsett hur den amerikanska närvaron bidrar till att minska eller öka krigsriken i de länder som nämnts så skapar den nya utvecklingen oro i Kina. Ta t.ex. den flygbas USA har upprättat i Kirgistan. Den gränsar till Kina, Tajikistan, Uzbekistan och Kasakstan. Från flygbasen kan amerikanerna slå direkt mot anläggningar som är strategiskt viktiga för det kinesiska kärnvapenprogrammet i Lop Nor. Det vore inte förvånande om man från Beijing betraktade den amerikanska offensiven i västra och södra delarna av Asien främst som del av en långsiktig strategi för att förbättra den militärstrategiska positionen gentemot Kina. Och även om premiärminister Vajpayees besök i Kina nyligen kan te sig som ett närmande så ligger antagonismen djup mellan dessa länder sedan kriget 1962. En betydande del av Indiens kärnvapenkapprustning sker med Kina i åtanke. Och om USA dessutom slutar ge sitt stöd till Pakistan så kommer troligtvis Musharaff eller nästa makthavare i Islamabad att satsa på att få ökat stöd från Kina. I så fall går gränsen för ett nytt kallt krig rakt igenom världens mest oroliga områden: Kashmir.

The lessons of Afghanistan: Warfighting, Intelligence, Force transformation, Counterproliferation and Arms control

Anthony Cordesmann

Introduction

Historians know all too well that it is far easier to rush forward in drawing lessons from history than it is to validate them. This is even truer when the lessons must deal with something as chaotic as war. Moreover, the Afghan conflict is anything but a conventional war[1.2] It is an asymmetric war fought with radically different methods, by different sides with different goals and perceptions, and as a theater battle in a broader global struggle against terrorism. While somewhat similar conflicts have taken place in the past, even the Soviet Union's experience in Afghanistan was so different in terms of the forces on each side, the weapons used, and the alliances in the region, that it is usually difficult to make historical comparisons.[3]

The problem of drawing lessons from the Afghan conflict is further complicated by the fact the war is anything but over. The Taliban has been driven from power, but far more ex-Taliban have been dispersed than have been killed or captured. In spite of an ongoing nation building effort, it is far from clear that the Taliban will not eventually resurface in some form. Furthermore, "nation building" in Afghanistan has already become an activity that involves direct fighting between various factions that once opposed the Taliban, and such factions already make active efforts to use US and British forces, peacekeepers, and any other available tool to serve the interests of rival clans, tribes, ethnic groups, factions, and warlords.

Al Qaeda has been defeated in battle in Afghanistan, but it too has had many fighters disperse. Only about half of its senior officials seem to have been captured or killed, and the fate of Osama Bin Laden and many others remains unknown. Al Qaeda continues to be engaged in sporadic clashes with coalition forces inside Afghanistan, and seems to have significant numbers of fighters in Pakistan in the tribal areas near the Northwest Frontier. Equally important, Al Qaeda had cells or associated elements in some 68 countries when the war in Afghanistan began. It has suffered major reversals in many of these countries, but it has scarcely been defeated in all of them. Consequently, Al Qaeda remains a global threat.

As for the broader battle on "global terrorism," it has scarcely begun. There are at least 20 more movements that have threatened or attacked Americans in the recent past, and the primary area of terrorist attacks against US citizens before September 11th was Latin America.

---

[1]For a broad introduction, see General Richard B. Myers, "Six Months After: The Imperatives of Operation Enduring Freedom," RUSI Journal, April 2002, pp. 10-16, and "A Word from the Chairman, Joint Forces Quarterly, Autumn/Winter 2001-02, pp. 1-7, and "Q&A With Tommy Franks," Atlanta Journal and Constitution, April 7, 2002. Extensive use is made throughout this analysis of the Pentagon daily briefings available on www.defenselink.gov., various service web pages like www.army.mil.enduringfreedom, and the USCENTCOM site at www.uscentcom.mil.enduring_freedom.updates.

[2] For other early overviews, see Bryan Bender, Kim Burger and Andrew Koch, "Afghanistan: First Lessons," Jane's Defense Weekly, December 19, 2001, pp. 18-21; Eliot A. Cohen, "A Strange War," The National Interest, Thanksgiving 2001, pp. 11-22; "The US and Soviet Wars in Afghanistan: Why They differed," The Estimate, November 30, 2001; "The Last War and the Next One: Lessons to Learn and Not Learn, The Estimate, December 28, 2001; Kim Burger and Andrew Koch, "Afghanistan: The Key Lessons," Jane's Defense Weekly, January 2, 2002, pp. 20-27, and Michael O E. O'Hanlon in "A Flawed Masterpiece," Foreign Affairs, Vol. 81, No. 3, March/April 2002.

[3] While the definitions of conflict and war have somewhat of a consensus status in international law, in practice, the use of the terminology can be somewhat subjective. At the "First Peace Conference," held in 1899 in The Hague by Tsar Nicholas II, delegates formally adopted "Marten's Clause," which admitted the difficulty of defining and using the term war. In 1949, the United Nations Conventions clarified that absent a declaration of war, nations fighting one another are in fact engaged in an "armed conflict." However, as both public officials and the media have characterized the fighting in Afghanistan as a war, this analysis will utilize the terms "war" and "conflict" interchangeably

Several major states are developing steadily improved capabilities to wage asymmetric warfare, including Iran and Iraq. Whether or not they deserve to be called members of an "evil axis" is debatable. Whether they are major proliferators is not.

There are good reasons why US defense officials like Secretary of Defense Donald Rumsfeld and senior commanders like General Tommy Franks have warned that there are months and possibly years of fighting still to come. There have been many times in the past when states using advanced technology and conventional forces announced victory over guerrilla and terrorist forces, only to see those forces adapt or reemerge as a different kind of threat. Asymmetric wars tend to be highly adaptive; this war is both regional and global in scope. It also is a struggle fought in a context where it may come to interact with other conflicts such as the ongoing Israeli-Palestinian struggle and a possible US effort to drive Saddam Hussein from power. Just as it is easier to draw lessons than validate them, it is easier to declare victory than achieve it.

Drawing Lessons Without Hard Data

The Pentagon and British Ministry of Defense have provided few statistics and details on the course of the war to date, and the Taliban and Al Qaeda have provided nothing but systematic misinformation. There is little data on the numbers of forces involved, sorties flown, and weapons used. Most of the manpower estimates available for land battles count the total US and British forces in the area of engagement, rather than those actually engaged in fighting. Estimates of Al Qaeda, Taliban, and friendly Afghan forces – and their weapons strength – are little more than guess work. The data released so far on Afghan casualties, collateral damage, weapons accuracy, and battle damage assessment is vague or self-serving to the point of being worthless.

Study teams, like the US Department of Defense's Defense Science Board and the 35-person Joint Task Force Enduring Look, are just beginning to make a systematic effort to gather the data needed to draw detailed lessons from this conflict.[4] However, -- as was the case in Desert Storm and Desert Fox, and in other recent conflicts -- the theater commander prevented adequate teams of analysts from being on the scene during the most critical period of the fighting. This refusal to create teams of on-the-scene experts may reduce some of the support and command burden during operations, but the resulting inability to evaluate combat activities as they proceed seriously limits the quality of US military analysis, and is a continuing problem in the way the US wages war.

There are some useful data on the number and type of aircraft flown and air munitions, and these data do have special meaning in this war. At least in its initial phases through the destruction of the Taliban regime, air power played a critical role in each battle, in making the advances of anti-Taliban Afghan factions possible, in destroying enemy infrastructure and facilities, and in allowing a relatively small number of Special Forces to successfully target Taliban and Al Qaeda forces in the field. Since that time, the near total level of US fixed-wing air supremacy over the battlefield, coupled to the use of US attack helicopters and heliborne air mobility, has made it almost impossible for significant Taliban and Al Qaeda forces to concentrate and survive.

Data on Aircraft and Munitions Use

The Department of Defense's Defend America web site lists the following statistics on the first year of the coalition air effort in Afghanistan:[5]

---

[4] Defense Daily, April 10, 2002, p. 7.

[5] "Year in Review - War Against Terrorism," Defend America, http://www.defendamerica.mil/specials/oct2002/sp101502a.html.

- Total number of bombs dropped: 24,000 (13,000, or approx. 54.2%, of which have been precision-guided)
- Total number of sorties flown: 55,150
  - Total fighter sorties: 2,700 (approx. 4.9% of all sorties)
  - Total bomber sorties: 1,725 (approx. 3.1% of all sorties)
  - Total tanker sorties: 13,625 (approx. 24.7% of all sorties)
  - Total cargo sorties: 28,300 (approx. 51.3% of all sorties)
  - Total other sorties: 8,800 (approx. 16% of all sorties)
- Total number of personnel transported: 217,070
- Total freight: 299,365 pounds

The Department of Defense made the following sortie data available on US air missions that occurred between the start of the campaign (October 3) and December 17, by which time the Taliban and Al Qaeda were already defeated as organized military forces. These data reflect the major role air power has played over the battlefield, as well as the importance of precision-guided munitions:[6]

- The United States Air Force (USAF) had flown more than 7,100 sorties, or roughly 45-46% of all sorties flown. The US Navy (USN) had flown roughly the same number and percentage. Other nations had flown roughly 1,420 sorties, or 8-10% of the total.
- The USAF flew bomber attack missions, AC-130 gunship missions, and a limited number of F-16 and F-15E missions, while the USN flew carrier-based F-18 and F-14 strike fighter missions.
- The Air Force's F-16s functioned with much greater fuel efficiency than did its F-15s. An F-16 would use less than 50% of the fuel used by an F-15 in performing the same mission.[7] Because the demand for mid-air refueling assets exceeded the supply that was available in the Afghanistan theater, the employment of F-16s functioned as a force multiplier.[8]
- The USAF and USN have dropped a total of roughly 8,500 tons of munitions, or a total of 12,000 weapons, with the USAF dropping 6,500 tons or 75% (4,600 tons or 72% of which were precision-guided) and the USN dropping 2,100 tons or 25%
- The 7,100 sorties of the USAF included 450 ISR (intelligence, surveillance, and reconnaissance) sorties (6%), 3,500 refueling or tanker sorties (49%), and 3,150 bomber and transport flights (44%.)
  While the bombers dropped the vast majority of the 6,500 500-pound dumb bombs used, they also dropped roughly half of all the guided munitions.[9]

The Combined Air Operations Center (CAOC) developed similar data for the period between October 7 and December 23:[10]

- The US flew roughly 6,500 strike missions and dropped about 17,500 munitions on more than 120 fixed complexes and more than 400 vehicles and artillery weapons. Roughly 57% of the weapons dropped were smart weapons.

---

[6] Jane's Defense Weekly, January 2, 2001, pp. 20-27.
[7] "Enduring Freedom Debrief," Code One Magazine, http://www.codeonemagazine.com/archives/2002/articles/jul_02/332nd/.
[8] "Enduring Freedom Debrief," Code One Magazine, http://www.codeonemagazine.com/archives/2002/articles/jul_02/332nd/.
[9] Los Angeles Times, February 10, 2002.
[10] See William M. Arkin, "Old-Timers Proved Invaluable in Afghanistan Air Campaign," Los Angeles Times, February 10, 2002.

- The US Navy flew 4,900 of the 6,500 strike sorties flown, but delivered less than 30% of the ordnance.
- The US Air Force flew only 25% of the strike sorties flown, but delivered more the 70% of the ordnance that was released.
- Ten B-52s and eight B-1s were deployed at Diego Garcia - a British island dependency in the Indian Ocean that is approximately 2,500 miles from Afghanistan. From those bombers, air war commanders could rely on having approximately four B-1 sorties and five B-52 sorties each day.[11] Both planes have been able to operate effectively from there because, as bombers, they have long range capabilities. (The B-52 is able to fly more than 8,800 miles unrefueled;[12] the B-1 has a range that is described generically on a USAF Fact Sheet as being "intercontinental, unrefueled."[13])
- Comparisons of fighters to bombers may not be "fair" in terms of airframe-to-airframe comparisons, but the issue is mission capability and not aircraft type. The fact remains that "antique" B-52s and B-1s based in Diego Garcia flew 10% of the strike missions, but delivered 11,500 of the 17,500 weapons dropped – 65% of all weapons dropped and 89% of all weapons dropped by the USAF. That is due, in part, to the sizeable advantage in range that bomber aircraft have over fighter aircraft. It is also attributable to the fact that when fitted with highly accurate GPS-guided JDAM bombs, the B-1s and B-52s were able to function with high efficiency in a close air support role and, because of their long range, were able to loiter for long periods of time in the skies over and near combat zones. Air Force Chief of Staff, General John Jumper, has described the new tactical proficiency of B-52s and B-1s as being transformational.[14]
- The ten B-52s delivered most of the ordnance. The majority of the bombs delivered by B-52s, however, consisted of unguided bombs. The typical bomb load for the B-52 included twelve 2,000-pound JDAMs and 27 Mk 82 unguided bombs.[15]
- The B-1 also functioned very efficiently during the air campaign: B-1s flew a total of 716 sorties, which account for only 5% of all US combat sorties, however, during those B-1s delivered more than 8.8 million pounds of ordinance, which accounts for 39% of all US ordinance dropped during the campaign. The B-1 possesses the greatest ordinance payload capacity of any bomber in the US fleet.[17] The typical armament for the B-1 was 24 2,000-pound JDAM bombs.[18] Furthermore, B-1s delivered a great majority (3,869 total, which is 78%) of the GPS-guided JDAM bombs dropped in Afghanistan.CITE In one notable display of the B-1's ability to bring a very large amount of ordinance to bear in a tactical situation, four B-1s delivered 96 JDAM bombs in a twenty minute period. Some reports claim that the B-1's penetration capabilities were sometimes useful.[19] Other sources indicate that the B-1 has overcome its long-standing problems in electronic warfare upgrades[20] As of June 2002, the B-1 had performed in OEF with a mission

[11] Dr. Rebecca Grant, "The Afghan Air War," Air Force Assoc. web site, Sept. 2002.
[12] "B-52 Stratofortress," Federation of American Scientists, http://www.fas.org/nuke/guide/usa/bomber/b-52.htm.
[13] "Fact Sheet: B-1B Lancer," Dept. of the Air Force, http://www.af.mil/news/factsheets/B_1B_Lancer.html.
[14] Dr. Rebecca Grant, "The Afghan Air War," Air Force Assoc. web site, Sept. 2002.
[15] Hunter Keeter, "Communications, Weapons-Carrying Improvements Key to Bomber Force," Defense Daily, Nov. 4, 2002.
[16] Tech. Sgt. Tim Dougherty, "B-1 is Tailor-Made for Operation Enduring Freedom," Air Force Link web site.
[17] Tech. Sgt. Tim Dougherty, "B-1 is Tailor-Made for Operation Enduring Freedom," Air Force Link web site.
[18] Hunter Keeter, "Communications, Weapons-Carrying Improvements Key to Bomber Force," Defense Daily, Nov. 4, 2002.
[19] Los Angeles Times, December 12, 2001; Jane's Defense Weekly, December 3, 2001, p. 28.
[20] Aviation Week and Space Technology, June 24, 2002, p,. 47.

capable rate of near 90% and a weapons release rate of 95%.[21] No B-1s (or B-52s, or B-2s) were lost in combat, however, one of the eight B-1s deployed in the Afghan theater crashed into the sea in December, 2001. In that incident, all crewmembers were able to successfully eject from the plane and avoided serious injury. The cause of the accident has not been determined.[22] It was the only Class A (serious) accident involving a B-1 in the last four years. Over the course of their service lifetime, B-1s have had, on average, 1.63 planes lost per 100,000 flying hours. That loss rate is higher than that of the B-52, which has a loss rate of 1.01, however, that is not surprising considering the fact that the primary purpose of the B-1 is to be prepared to fly high speed, low altitude missions.CITE In fiscal year 2000, however, the B-1 had twelve Class B or C incidents, whereas the B-52 had only four and the B-2 had zero.

- B-2s based in CONUS flew missions on only the first two days of OEF for a total of six strike missions because the remaining Taliban and Al Qaeda air defenses were too unsophisticated to require the use of stealth aircraft. The B-2s has produced contradictory reports. Some people argue that the B-2's global strike capability warrants the production of more aircraft (and Northrop has offered to sell 40 more at a price of $40 billion). Other sources point out, however, that each aircraft would still cost more than $730 million, that the availability of aircraft already in the inventory was only 31% in 2001 and 37% in 2000 (versus the Air Force goal of 60%), and they would also note that in March 2002 cracks were discovered in the rear section of 16 of the Air Force's 21 B-2s.[26]
- Bombers delivered the vast majority of unguided dumb bombs. Roughly 6,300 500-lb bombs in loads of up to twenty per aircraft. They also, however, were responsible for delivering about half of the smart weapons, including the GPS-guided Joint Direct Attack Munition (JDAM) that achieved combat CEPS of six to ten meters, and had a standoff range of up to fifteen miles.
- The $14,000 JDAM was used at a peak rate of roughly 3,000 per month.

Table One provides detailed estimates of the number of sorties flown, and munitions used, as of December 31, 2001. There are summary reports that cover later periods, although they are vague as to definition, date, and the exact period covered.

- Roughly 18,000 weapons were dropped by early February. Of that number, roughly 10,000 were precision weapons, or 56% of the total. This compares with 35% of the 24,000 weapons dropped during the Kosovo campaign in 1999.[27]
- As of April 2002, 22,434 bombs had been dropped during the campaign in Afghanistan. Of that total, roughly 6,650 were JDAM munitions. Roughly 60% of the total munitions dropped were guided by lasers to their targets. Additionally, as of April, more than 22,000 air sorties had been flown.[28]
- As of June 2002, the percentage of precision-guided weapons used increased to roughly 60%, and military officials estimated their accuracy to be roughly 90%. As of May 2002, the Navy claimed that out of all sorties flown, combat aircraft had successfully hit at least

[21] Aviation Week and Space Technology, June 24, 2002, p,. 47.
[22] "B-1B Crash Cause Remains Unknown," Air Force Link, http://www.af.mil/news/Sep2002/92402412.shtml.
[23] Also see Aerospace Daily, December 13, 2001.
[24] Los Angeles Times, December 12, 2001; Jane's Defense Weekly, December 3, 2001, p. 28.
[25] Aviation Week and Space Technology, June 24, 2002, p,. 47.
[26] New York Times, December 11, 2001, and March 20, 2002.
[27] Bryan Bender, Kim Burger, and Andrew Koch, Afghanistan: First Lessons, Jane's Defense Weekly, December 19, 2001, p. 20; New York Times, February 8, 2002, p. A-14, and Philadelphia Inquirer, February 12, 2002, p. 1.
[28] New York Times, April 9, 2002.

one target 84% of the time. Additionally, the Navy estimated that roughly 90% of the munitions it has dropped were advanced or precision weapons.[29]

- Although the AC-130H Specter and AC-130U Spooky gunships present during the fighting did not deliver high numbers of bombs and missiles, they were able to provide extensive combat support with 105mm guns and 40mm cannon. They have an unrefueled range of some 2,200 miles and, while they are vulnerable to air defenses, they have extensive countermeasures, infrared and radar warning, and flare and chaff dispensing systems (a key reason that the gunship costs as much as $190 million versus $30 million for a C-130H II). The USAF found the aircraft's performance to be so effective that it is seeking to upgrade its existing aircraft and convert four more C-130Hs by 2005. The USAF currently has eight AC-130Hs and thirteen AC-130Us, and plans to improve their air defense, fire control, cameras and sensors, and add ammunition racks. It will acquire all-weather combat capability and ISR links to allow it to be fully integrated into the US net of other combat platforms and intelligence assets. [31]

The Defense Department did update its manpower and aircraft numbers data in June 2002, although it provided little detail. These numbers showed a total Central Command force of 55,000, with 7,500 in Afghanistan, 1,000 in Pakistan, 1,000 in Kyrgyzstan, 1,700 in Uzbekistan, and 13,000 afloat. In addition, the US had 5,100 personnel in Saudi Arabia, 3,900 in Qatar, 3,500 in Oman, 4,500 in Bahrain, 850 in the United Arab Emirates (UAE), and 64 in Yemen. (The Gulf numbers had dropped since April because of movements into the theater, and because of cuts in the naval presence that dropped the personnel afloat by 9,000.) The US had a total of 570 aircraft for the entire CENTCOM area, including the Afghan conflict, which includes 195 fixed-wing shooters, 40 attack helicopters, 125 support helicopters, 110 fixed wing cargo aircraft, 40 ISR aircraft, 60 tankers, and 90 allied coalition aircraft.[33] However, there still are no meaningful official data on battle damage assessments or combat effectiveness, and no reliable data on the use of munitions by type or kind of target.

The US has not released the full details of its use of cruise missiles. The US and Britain do seem to have fired more than 50 during the early days of the war, but the US did not draw down heavily on its stockpile because Afghanistan had comparatively few valuable fixed targets and no effective air defenses after the first few waves of US strikes.[34] US experts indicate, however, that the cruise missiles with GPS proved to be far more reliable and accurate than the earlier design that relied on radar mapping and terrain features during the Gulf War. Operational accuracies within 10 meters seem to have been common. GPS also allowed the cruise missiles to home in without having to follow predictable mapping corridors when restriking targets. During the Gulf War, many cruise missiles had to fly virtually the same, predictable route in striking targets like Baghdad.

Comparisons of the Afghan Air Effort with the Gulf War and Air Campaign in Bosnia/Kosovo

It is possible to make some rough comparisons of the level of US air effort in the Afghan War relative to the US effort in the Gulf War and Kosovo. These data are shown in Table Two. While there are some minor definitional problems in these data, they clearly reflect the relative level of the total air and air strike efforts, and the steady shift towards the increased use of

[29] The New York Times, June 25, 2002; Aviation and Space Technology, April 28, 2002, p. 55.
[30] Defense News, January 14, 2002, p. 28, April 29, 2002, p. 6.
[31] Defense News, January 14, 2002, p. 28, April 29, 2002, p. 6.
[32] Bryan Bender, Kim Burger, and Andrew Koch, Afghanistan: First Lessons, Jane's Defense Weekly, December 19, 2001, p. 20; New York Times, February 8, 2002, p. A-14, and Philadelphia Inquirer, February 12, 2002, p. 1.
[33] US Department of Defense, Public Affairs Office, June 27, 2002.
[34] Washington Times, December 13, 2001. p. 7.

precision weapons. At the same time, it should be noted that key factors like sortie rates are highly contingency dependent, that the target mix differed strikingly in each case, and no quantifiable data are available on trends in terms of the effectiveness of given munitions and aircraft. Unfortunately, the other data that have emerged on aircraft and munitions effectiveness are extremely impressionistic and uncertain.

Cost Estimates for the War During the Peak of the Fighting and Cutting the Cost of Precision Strikes

Ironically, the Department of Defense has issued more cost data than military effectiveness data. Estimates of the cost of the war to the US alone for Operation Enduring Freedom were $3 billion in early December and $3.8 billon as of January 8, 2002. The total cost including mobilizing reserves, deploying US forces to the theater, and flying air defense missions in the US homeland was $6.4 billion. The direct costs of the war in Afghanistan included $1.94 billion to deploy and sustain US forces, including three US aircraft carrier battle groups. It also included some $1.57 billion to pay for the reserve and National Guard personnel mobilized through January 8, plus $969 million on agency support; $372 million for munitions, including some 4,600 Joint Direct Attack Munition bombs and at least 95 Tomahawk cruise missiles; $383 million to replace lost equipment; $103 million to fly C-17 humanitarian relief missions; and $45 million for flights carrying equipment and supplies for combat operations. [35]

One key feature of these costs was the fact that the JDAM – a $14,000 GPS guidance kit for conventional 1,000- and 2,000-pound bombs – both regularly achieved accuracies of six to ten meters, and came to dominate the delivery of guided weapons. This sharply lowered the cost of precision-guided and standoff missions. It indicates that the US can develop a future "high-low" munitions mix that emphasizes high and low cost precision-guided weapons, rather than high cost precision weapons and cheap dumb bombs.[36]

The Homeland Defense expenditures included $1.5 billion in pay for 63,567 reserve and National Guard personnel, $432 million for National Guard combat air patrols over the US from 26 air bases on fifteen-minute alert, $362 million for Guard and reserve lodging and travel, and $252 million for the health care costs associated with mobilization. These totals do not cover expenditures since January 8, and compare with roughly $1.7 billion as the US share of the war in Kosovo. [37]

---

[35] Department of Defense figures reported in Bloomberg.com, January 22, 2002.

[36] For further details, see Bill Sweetman, "The Falling Price of Precision, Jane's International Defense Review, April 2002, pp. 46-50. The JDAM had an initial cost of $40,000 and a CEP specification of 13 meters. The cost is not roughly a third of that and CEPs of less than 5 meters have regularly been achieved on test ranges.

[37] Department of Defense figures reported in Bloomberg.com, January 22, 2002.

Table One: Aircraft Sorties Flown and Munitions Used as of December 1, 2000

Aircraft	Strike Sorties Flown
F-14	1200
F/A-18	3700
F-15E	250
F-16	470
AC-130	225
B-1	320
B-2	6
B-52	375
Total	6546

Munition	Air Force	Navy
CBU-87	164	
CBU-103	573	
GBU-10	13	
CBU-12	977	26
GBU-24	34	
GBU-28	6	
GBU-31v1(JDAM frag)	4083	
GBU-31v3(JDAM pen)	509	21
GBU-37 JDAM	2	
Mk-82	6344	
Mk-83		195
Mk-84	204	3963 (almost all LGB or JDAM)
BLU-82	4	
GBI-15	2	2
GBU-16		274
TLAM		74
AGM-65-G	1	
AGM-130	1	
AGM-142	**2**	

Source: E-mail, data attributed to William M. Arkin.

Table Two: US Airpower in Recent Regional Conflicts

	Desert Storm	Serbia/ Kosovo	Afghanistan
Area of Operations in **Square Miles**	**176,000**	**39,500**	**250,000**
Length of War in Days	**43**	**78**	**?**
Total Sorties During Period Reported	**118,700**	**37,500-38,000**	**29,000-38,000***
Percentage of Total Sorties Flown by US*	**85**	**60**	**92**
Offensive Strike Sorties	**41,300**	**10,808-14,006**[38]	**17,500**
Sorties per Day	**2,800**	**200, climbing to 2,000**	**25, climbing to 200**
Total Bombs Delivered*	**265,000**	**23,000**	**22,000**
Precision-Guided Bombs Delivered*	**20,450**	**8,050**	**12,500**
Percentage of Total Munitions that are Precision-Guided	**7-8%**	**35%**	**56%**
Percentage of Precision-Guided Weapons Delivered by US	**89**	**80**	**99**
Combat Losses	**38**	**2**	**0**

* Data based on Michael E. O'Hanlon and an estimate of 38,000 total sorties flown
Note: Significant definitional problems exist in making such counts and historical sources differ. This count is based on the work of Thomas Keaney at Johns Hopkins University and on an article authored by Michael E. O'Hanlon entitled "A Flawed Masterpiece" (Foreign Affairs, Vol. 81, No. 3, March/April 2002, p. 52). O'Hanlon evidently reports on a longer period than Keaney does.

[38] The USAF reported a normal figure of 12,600 "shooter sorties." See Anthony H. Cordesman, The Lessons and Non-Lessons of the Air and Missile Campaign in Kosovo, Westport, Praeger, 2001, pp. 42-44.

A Unique War with Unique Intangibles

A lack of hard data has not stopped experts from rushing ahead to draw dramatic lessons about technology, tactics, and future wars. It is important to understand, however, that there are problems in drawing lessons from the present Afghan conflict. It is a unique war fought under unique conditions, and which involved unique political and strategic "intangibles."

The Unique Conditions of War

The challenge for the US and Britain was greatly increased by distance, a lack of prewar forward bases, major regional political sensitivities, weather, and by dealing with a dispersed enemy located in a country the size of Texas. At the same time, the challenge was reduced by a number of factors whose importance became steadily more apparent during the course of the war:

- The Taliban government was deeply unpopular, if not hated, by a large percentage of Afghans, including many Pashtuns. Al Qaeda was far more hated, and seen as a foreign mix of Arabs, Central Asians, Pakistanis, and others. The Afghans may be a highly nationalist people, but they saw their government and Al Qaeda as "foreign" and oppressive.
- An organized and armed opposition, with extensive combat experience by Afghan standards, still existed in the country. While it was often inefficient and poorly organized, the Taliban and Al Qaeda were forced to disperse their military assets over a very wide area, and often in hostile territory. Small amounts of US advisors, arms, and aid could often decisively tilt the balance in a given tactical area.
- The air defenses available to the Taliban and Al Qaeda were so limited that the Afghan air force virtually did not exist, and they could not make effective use of their few remaining major surface-to-air missile units. They had little readiness or training to use anti-aircraft (AA) guns and man-portable surface-to-air missiles. This allowed the US to win near total air supremacy early in the war, and allowed US combat and support aircraft to operate freely over the battlefield with only minimal SEAD (suppression of enemy air defense) activity. The US also had freedom of action in using transport aircraft and helicopters, and could take advantage of relatively vulnerable strike platforms like the AC-130.
- The Taliban and Al Qaeda were sometimes credited as having up to 125,000 men, but less than 25,000 were serious fighters, and their training was largely in light arms, artillery, and light infantry combat. It had no real beyond line of sight target capabilities, no meaningful night vision capability, and no armored or mechanized units larger than battalion size. The largest operational element seems to have had less than 70 tanks.
- The Taliban had arisen as a largely urban movement, and had little real experience in guerrilla warfare. It was heavily dependent on Al Qaeda elements and Pakistani military aid. It had come to power by defeating warlords and a Northern Alliance that had already largely defeated itself, and had relatively little experience in maintaining, sustaining, or using modern arms.
- While the Taliban and Al Qaeda had comparatively few fixed assets and facilities, the ones it did have were critical to its ability to coordinate, reinforce, and support combat operations. It was heavily dependent on trucks and a small number of transport aircraft for mobility and sustainment.
- Exposed terrain, road-limited reinforcement and re-supply, the inability to shelter among the population in many areas, and the need to concentrate armor and artillery for the defense of key cities and to fight major opposition elements, meant that a great deal of the key armor, artillery, land vehicle, and communications assets of the Taliban and Al

Qaeda could be targeted day and night by aircraft, Special Forces, unmanned aerial vehicles (UAVs), joint surveillance target attack radar systems (JSTARS), and other US assets, and the lack of threat to US aircraft meant that they could linger over the area and kill on a target of opportunity basis.

- The Taliban and Al Qaeda could not disperse or retreat without exposing their forces, and both US and opposition forces could kill them from a distance without the Taliban and Al Qaeda being able to reply. Convoys could not move and survive. Ground forces could not stay and survive, and the Taliban could not abandon urban areas and continue to rule.
- The almost "mercantile" character of intra-Afghan fighting, and the fact that the Taliban depended heavily on elements whose loyalty was opportunistic at best, meant that the Taliban could not hold onto many force elements the moment it suffered major defeats, and that the US could outbid it in terms of rewards and power. This interacted with the ability of US airpower to strike freely over the battlefield, and the ability of US and British Special Forces to call in air and missile strikes, and operate with night vision devices and long-range reconnaissance and targeting assets, like aircraft and unmanned aerial vehicles.
- Al Qaeda seems to have had great skill in making itself hated throughout the country and had to concentrate in barracks and facilities to protect itself. Its creation of various cave and training camp sanctuaries gave it some physical protection from air strikes, but also created target complexes. The fact that Al Qaeda could not depend on support from the Afghan people or certain factions also tended to turn such caves and camps into the equivalent of target zones or rattraps. Moreover, they were generally so isolated that US ground troops could – in extremis – besiege or attack them without becoming involved with the Afghan people or the quarrels of various Afghan factions.
- All of these factors combined to make the impact of a comparatively few US attacks and bomber sorties uniquely effective. The US was not forced to rush in massive amounts of land based aircraft or build-up massive combat air bases in Central Asia and Pakistan. Instead, the average of 60-70 sorties of carrier-based aircraft and the average of six to eight bomber sorties per day could operate in a permissive environment where they could target at leisure, minimize collateral damage, and achieve considerable lethality and psychological impact against the Taliban and Al Qaeda's comparatively limited number of heavy weapons, fixed facilities, and major depots and communication assets.
- Factional competition and warlordism created a number of problems for the US in terms of false information, competition between factions, and targeting problems. In several instances, US and local forces possessed differing visions of what an acceptable military outcome would be, with local generals negotiating surrenders that enabled Taliban and/or Al Qaeda leaders, such as Mullah Mohammed Omar, to escape capture. At the same time, it made it impossible for the Taliban to concentrate on the US threat, to concentrate on controlling any one geographic or ethnic area, and to know which group(s) it could trust. The competition between factions and warlords also often made them very aggressive in attempting to split the Taliban in given areas, and in rushing into areas in an attempt to seize power, weapons, etc.
- In practice, the inability of US and British forces to rapidly deploy and sustain large numbers of combat troops was turned into an "advantage." US and British advisors and Special Forces could use local forces as force multipliers, allowing them to also be the primary combat force seen by Afghans. This avoided making British and US forces seem to be invaders, equivalent to the Soviet forces of the past. While some critics have said the US and/or Britain should have deployed many more ground troops much earlier, the net impact might well have been to create the impression of an invasion, provoking a

broad Afghan backlash, and allowing the Taliban and Al Qaeda to disperse into the countryside in at least the Pashtun areas with far more support.

- All of these factors combined to sharply lower the intensity of the fight on the ground while the Taliban and Al Qaeda still had significant, organized military strength. So did the tendency of the Northern Alliance and other Afghan forces to pause and loot, rather than close-in on the enemy. The opposition advance was largely one of air strikes, clashes, bargaining, and concessions, not conventional battles. In broad terms, bargaining and defections meant that this was one of the few wars won without major frontal battles.
- The US and Britain were later able to introduce significant ground forces into the theater under conditions in which the Taliban and Al Qaeda had already been largely defeated, and a combination of airpower, vertical envelopment, and mobile light forces could be rapidly deployed against any remaining Taliban and Al Qaeda fighters.
- The terrain advantage that the Taliban and Al Qaeda might have gained through the use of caves and shelters in mountainous areas remained a potential risk, and gave Al Qaeda forces some initial advantages in the fighting at Tora Bora. At the same time, any use of such fixed defenses became something of a prison or trap. While weather did provide some cover and limit US and British air mobility, it limited Taliban and Al Qaeda mobility even more.
- The Taliban and Al Qaeda had no helicopter and mechanized mobility of their own, lacked the air defenses to prevent vertical envelopment, lacked the sensors to extend their situational awareness beyond visual range and at night, could only shelter in caves by losing significant tactical capability, and could only exfiltrate by dispersing and abandoning their supplies and heavy weapons. It took several days for US forces to adapt to the Al Qaeda use of caves and small fortified fire points and ambush areas at Tora Bora, but Al Qaeda had no way to match US precision guided munitions, area ordnance, and attack helicopter fire with mortars, automatic weapons, and light surface-to-air missiles.
- Al Qaeda had attempted to acquire chemical, biological, radiological, and nuclear (CBRN) weapons, but did not have such weapons in any form, much less in the kind of strength that might have affected or deterred US, British, and allied operations.
- While Al Qaeda and Taliban elements could disperse after their defeats in Kabul and Khandahar, and the Al Qaeda defeat at Tora Bora, this dispersal had to be so great that they lacked the ability to sustain more than minor harassment operations. Unlike other such movements that could operate like fish in a sea of friendly people, they also lacked the popular support and shelter in most areas to retreat and hide after launching raids and small attacks.

Anyone who rushes out to draw dramatic lessons about the decisive impact of technology, new tactics, or the revolution in military affairs from the fighting in Afghanistan should take a very long, hard look at this list of unique conditions. It is not that new technology, tactics, and training were unimportant. They certainly allowed the US and Britain to win far more quickly and with almost no casualties. At the same time, the Taliban and Al Qaeda had many unique limitations and vulnerabilities, and it is far from clear that future opponents will have similar vulnerabilities to the same degree.

It should also be clear that the US and British forces involved could not have been nearly as successful if they had not been highly professional forces with very high levels of training, readiness, and sustainability. For example, they were able to rapidly project power half way around the world and sustain a broadly coordinated set of air-land operations over a combination of Afghan territory, allied states, and the Indian Ocean – an area about six times the size of Texas.

The ground forces involved could not have functioned as they did without highly specialized training and expertise in special operations, mountain warfare, and highly mobile combat. The intelligence officers engaged could not have been as successful if the cadres involved did not have the language and area skills necessary to sustain coalition warfare.

The US Air Force, Marine Corps, and US Navy air units that dominated the fighting had an amazing safety record. They demonstrated an ability to operate in spite of much longer missions than are normal -- US carrier missions averaged more than twice the length of normal peacetime training and past combat missions. Additionally, they demonstrated equal skill in executing parts of the support effort provided by refueling; intelligence, surveillance, and reconnaissance (ISR); and support aircraft. While some fixed-wing and helicopter crashes did occur, and some were the product of high pilot workloads and fatigue, the overall performance was excellent in spite of long missions, frequent refuelings, poor weather, and difficult mountain flying conditions.[39]

It is easy to ignore such military professionalism in analyzing the lessons of the conflict and to focus on the new technology and "toys" of war. In practice, the same result could probably not have been achieved with something approaching Gulf War levels of technology, but could not possibly have been achieved without the Gulf War's extremely high level of professionalism, tactical flexibility and innovation, and use of force elements with high sustainability and readiness.

The Unique Impact of Intangibles

The US and its allies were very fortunate in the way that the strategic and political intangibles affected the course of the war. There were political and military uncertainties whose impact US and British planners could not predict when the fighting began, but nearly all worked out in favor of the US, Britain, and the Afghan opposition:

- The sheer success and sheer brutality of the attacks on the World Trade Center and the Pentagon gave the US a major psychological and political edge. The Bush Administration used this political and psychological momentum successfully. It did so without escalating the country too far by attacking Iraq, and without allowing the war to become anti-Islamic. Britain, Europe, and NATO did the same. This mixture of a clear cause for military action, and a high initial degree of Western unity provided intangible political and diplomatic benefits that were less available even in "popular" military action in Bosnia or Kosovo.
- The Taliban and Al Qaeda were truly unpopular, in most regions of Afghanistan. They could disperse in some areas in the east and southeast, but even in these regions they could not marshal widespread political and popular support.
- Al Qaeda and the Taliban had important fracture lines. The Taliban seems to have been dragged into the war by the Mullah Omar's allegiance to Osama bin Laden. Many other senior Taliban officials do not seem to have wanted to get involved, and the divided nature of the Taliban made it easy for them to defect or simply disperse.
- While the Taliban did score some initial propaganda successes in the Arab and Islamic worlds, this sympathy was negligible in comparison to the sympathy given Muslims in Bosnia and Kosovo, and in comparison to the sympathy given the Afghan opposition during the Soviet invasion. It is particularly striking that this propaganda had so little effect in view of the fact that the US and Britain were slow to organize their own regional propaganda efforts, and that the US was suffering from considerable political backlash resulting from its alliance to Israel and the impact of the Second Intifada. This evidence

[39] In many cases, "pilot error" may have been the result of inadequate avionics for mountain flying or having to carry out missions in very marginal flying conditions. An example is the KC-130 crash in June 2002. San Diego Union Tribune, June 20, 2002, p. 1.

suggests that the "clash within civilizations" or within given countries is often far more important than any "clash between civilizations."

- With relatively few exceptions, Arab and Islamic support for the Taliban and Al Qaeda remained at the media and armchair level. The Taliban's propaganda effort was better prepared at the regional level than that of the US and Britain at the start of the conflict. Such propaganda played a powerful role, particularly in producing exaggerated reports of collateral damage and the number of Arab volunteers that had been recruited by the Taliban, but steadily lost its impact as the character and unpopularity of the Taliban and Al Qaeda became apparent. By the time the Taliban position in Kabul collapsed, any notion that this was a war against Islam had been dissipated by a series of discoveries about how the Afghan people viewed the Taliban.[40]
- The Afghan factions fighting against the Taliban initially proved to be unusually intelligent in their opportunism, and did not turn on each other in combat or mid-victory as in the past.
- The Taliban and Al Qaeda military forces proved to be even more poorly organized than the US and Britain estimated at the start of the conflict. They were slow to adapt and innovate and slow to react to their acute vulnerability to air power at a time when they still controlled much of the country and had much of their land force still intact. Their forces did not demonstrate the level of flexibility that other groups such as Hezbollah and the Viet Cong did in the past -- although both of the latter forces often suffered major defeats before they learned how to adapt their tactics.
- The psychological impact of bombing and air power is always hard to predict. Perhaps because of the overall lack of air defenses and the resulting tactical helplessness of the Taliban and Al Qaeda, it seems to have had a major impact on their willingness to hold on to positions and fight.
- No one can predict whether tactical defeats will produce a sudden, uncontrollable, catalytic process of collapse. This is always a possibility, it is rarely a probability, and it is never a certainty. In this case, however, a combination of the military and political factors discussed earlier turned what seemed likely to be a much longer campaign into a relatively short one.
- The Taliban and Al Qaeda attempted to defend themselves, initially in areas where they were both unpopular and were highly dependent on motor vehicle movement along a few easily targetable roads. Not only did the terrain and limited infrastructure restrict the Taliban and Al Qaeda options, but it also helped "channel" US ISR efforts. There were only a few built up areas to monitor, few roads, and few points of contact between the Taliban, Al Qaeda, and the Northern Alliance. This permitted optimum use of ISR platforms.
- Ethnic divisions, the limited number of Taliban and Al Qaeda forces, and their reliance on cities made it impossible for them to hold out long enough to exploit the Afghan winter and would have made it difficult for them to operate in the most affected areas even if they had. In any case, winter did not come early or have a major impact in most areas of operations.
- Although the Taliban and Al Qaeda attempted to shelter in urban areas and use the population as cover, they were still forced to locate in compounds and in targetable areas where collateral damage could be limited. As time went on, the Arab, Islamic, and European focus on collateral damage also became progressively less strident as the

[40] See the analysis in The Estimate, Vol. XIV, Number 1, January 11, 2002.

limited impact of US air and missile strikes became apparent, along with the realization of most Afghans' hostility toward the Taliban and Al Qaeda in spite of the US attacks.

- The US was able to, and did stand aside from any priority to broaden the war and fight on more than one front. No major links emerged between Al Qaeda and active support from any other country – Iraq in particular. No major follow-up attacks complicated US overseas operations, and the Anthrax attacks in the US did not challenge US capabilities for homeland defense. What might have become a far more serious multi-front war remained a single front conflict. In retrospect, broadening the war to include Iraq does not seem like it would have been a good idea and certainly is not a lesson of the conflict.
- Internal Afghan conflicts have a unique culture in which various sides and factions routinely bargain, change sides, or simply avoid fighting. Instead of fanatic opponents, or even normal loyalties, the Taliban forces often initiated bargaining the moment they came under serious pressure, and then changed sides or dispersed. This made it extremely difficult to contain and defeat the Taliban and Al Qaeda forces in detail, but it also made it extremely difficult for their leaders to force any coherent or enduring level of military action.
- The leadership of Pakistan responded quickly and favorably to US initiatives and was able to exercise good control over Pakistani Islamic extremists.
- The Central Asian states were willing to support US and British operations.
- Russia and China proved to be highly supportive, and Russia allowed the US comparative freedom of action in Central Asia.
- Iran tolerated or tacitly supported the US and British operation.

A great deal of US, British, and allied political skill and diplomacy went into shaping these successes. So did tight management of the media information campaign, and the political skill of US and British Special Forces and advisors on the ground. Success in dealing with key uncertainties and intangibles was earned, and not simply a matter of luck. Nevertheless, the US and Britain were still very lucky, and it is doubtful that the political and strategic intangibles will be as favorable in future conflicts.

Certainly, the US and Britain cannot count on such conditions and such success in dealing with intangibles again. They are unlikely to approach the favorable conditions they encountered in the Afghan conflict unless they give equal importance to diplomacy, local politics, global and regional political sensitivities, and the need to build flexible and adaptive coalitions. Like the professionalism and readiness discussed earlier, these dimensions of war proved to be vital.

Drawing Lessons from a Partial Victory in an Ongoing Conflict

Given this background, it should be clear just how speculative any attempt to draw detailed lessons from the fighting must be, and why such lessons must be subject to constant revision. Nevertheless, there do seem to be some lessons that can be drawn from our experience to date.

The Problem of Distributed Warfare: Will Al Qaeda Re-emerge? What Does the Enemy Learn from Partial Defeat?

It has been clear ever since the battle of Tora Bora in December 2001 that even major military successes in Afghanistan may not bring victory in any traditional sense of the term. This lesson has been sharply reinforced by the lessons of Operation Anaconda, which are discussed later in depth. It can be argued that Tora Bora was more a warning about relying largely on uncertain allies to carry out a ground campaign than it was a general lesson about the strengths and limitations of the US approach to war.

Nevertheless, Tora Bora was the first major demonstration after the fall of Kabul that an enemy can disperse even could not cannot detect, characterize, and target.[41] The US and its allies won the battle in spite of the problems of fighting against forces in nearly 200 well-positioned caves and fire points in the mountains. They also seem to have inflicted at least several hundred casualties. Nevertheless, the Al Qaeda forces largely escaped -- often because Afghan troops were bribed, simply chose not to fight, or let factional rivalries paralyze effective coordination and action.[42]

Nothing that US and allied forces did in Operation Anaconda, or in independent search and destroy missions, however, has shown that the US and its Western allies have a solution to the problems associated with combating an enemy whose forces are dispersed, fluid, and not seeking a conventional fight. Al Qaeda has shown that in spite of the best efforts of US, British, and Australian special operations forces, it can disperse seemingly without a trace, utilize caves and other hiding places to keep arms and ammunition hidden in spite of massive search efforts, move into neighboring countries like Pakistan, and disperse into countries outside the immediate area of combat operations.[43]

More broadly, the US and its allies have had some success in killing or capturing some of the top leadership of Al Qaeda and the Taliban. The most notable success in Afghanistan was the elimination of Al Qaeda senior military leader, Muhammed Atef. In Pakistan, Abu Zubaydah, who may be Al Qaeda's third highest ranking member[44], and Ramzi Binalshibh, who allegedly assisted in the September 11 attacks and may have been intended to be the twentieth hijacker, have been apprehended. In Yemen, a CIA-operated Predator attacked a carload of Al Qaeda members that resulted in the death of Qaed Senyan al-Harthi, who is reported as being Al Qaeda's top lieutenant that country.[45] Also in Yemen, Abd al-Rahim al-Nashiri who is an explosives expert and Al Qaeda's senior operations planner for the Persian Gulf region, was apprehended. Al Qaeda's top two leaders - Osama Bin Laden and Ayman Al-Zawahiri - and Mullah Muhammed Omar, however, remain at large. An audio tape received by Al-Jazeera in November 2002 provides strong evidence that Osama Bin Laden is still alive.[46] The bulk of Taliban forces have dispersed into the Afghan population and many ordinary Al Qaeda fighters have escaped. It is clear that substantial numbers of Taliban and Al Qaeda forces have found sanctuary across the border in Pakistan. Lt. General Dan K. McNeil, the commander of US

---

[41] See New York Times, March 4, 2002, p. 1; Washington Post, February 10, 2002, p. A1, March 4, 2002, p. A1, May 8, 2002, p. A16; Christian Science Monitor, March 4, 2002, p. 1.

[42] Washington Post, December 23, 2001, p. A12; February 10, 2002, p. A1, May 30, 2002, p. A1, June 18, 2002, p. A12; International Herald Tribune, December 11, 2001, p.1, March 11, 2002, p. 3; London Times, March 4, 2002; Christian Science Monitor, March 4, 2002, p. 1.

[43] New York Times, February 4, 2002, March 27, 2002, May 1, 2002, May 3, 2002, May 6, 2002, p. 1, June 3, 2002; London Times, March 4, 2002; Washington Post, December 23, 2001, p. A10, March 20, 2002, p.A1, May 14, 2002, p. A15, May 16, 2002, p. A1, June 27, 2002, p. A1 and A28; Washington Times, May 15, 2002, p. 3, May 29, 2002, p. 4, June 24, 2002, p. 15, June, 27, 2002, p.16, June 28, 2002, p. 1, June 29, 2002; Newsweek, June 10, 2002; USA Today, June 13, 2002, p. 1, June 18, 2002, p., 7; Los Angeles Times, May 1, 2002, May 14, 2002, June 11, 2002, p. 1, June 28, 2002; Chicago Tribune, May 30, 2002, June 23, 2002, June 30, 2002; Christian Science Monitor, March 22, 2002, p.1, June 27, 2002, June 28, 2002, p. 1, July 2, 2002, p. 1.; Insight, July 22, 2002; Time, July 1, 2002, p. 26; London Daily Telegraph, March 21, 2002, June 24, 2002; Wall Street Journal, December 12, 2001; Jane's Defense Weekly, October 17, 2001, p. 21, October 31, 2001, p. 3; John G. Roos, "Turning Up the Heat," Armed Forces Journal, February 2002, pp. 36-42..

[44] Mark Coatney, "Person of the Week: Abu Zubaydah," Time.com, http://www.time.com/time/pow/article/0,8599,249910,00.html, May 24, 2002.

[45] "Predator Drone Kills Six Al Qaeda Suspects," ABCNews.com, http://abcnews.go.com/sections/wnt/DailyNews/yemen021105.html , Nov. 5, 2002

[46] Jack Kelley, "U.S. Authenticates bin Laden Tape," USA Today, http://www.usatoday.com/news/washington/2002-11-18-us-tape-authenticated_x.htm.

forces in Afghanistan, estimated that as of the middle of June 2002 roughly 1,000 Al Qaeda fighters continued to conduct operations in the border area.[47]

Moreover, Afghanistan is only one country and its neighbors are only one place that Al Qaeda can operate in and disperse to. The Department of Defense has stated from the outset that Al Qaeda is based in more than sixty countries. Senior US officials are still warning that Al Qaeda is capable of terrorist actions in the US and other countries.[48] Senior US military planners estimated in June 2002 that the fighting in Afghanistan would have to last, at a minimum, well into 2003. Months earlier, after the collapse of the Taliban, Secretary of Defense Donald Rumsfeld approved planning guidance that warned that the global battle against Al Qaeda and other major terrorist groups could easily extend to 2008 and beyond.[49]

Even the full defeat of the Taliban and Al Qaeda will not provide a firm guarantee that Afghanistan will not be a sanctuary for terrorists in the future. Mid- and long-term success in stable nation building in Afghanistan is as uncertain as it is in the Balkans and all of the other countries where it has been attempted. Additionally, the Taliban may rise up again in some form or other warlords may offer sanctuary to terrorists. In fact, it is unclear that even a broad "68-country" defeat of Al Qaeda would bring lasting victory.

US military planners and counterterrorism experts have already been proven all too correct in warning from the start of the conflict that the struggle in Afghanistan is providing lessons to enemies as well as to US, British, and friendly forces. They speculate that one key lesson for future terrorist and asymmetric opponents will be to create far looser and more broadly distributed networks and groups of cells that have a high degree of individual independence and survivability, and which do not have a rigid hierarchy, and headquarters and physical facilities that can be located and attacked. It is likely that Al Qaeda will adapt to US intelligence gathering methods by constructing smaller, more concealed terrorist training camps, which are not easily located by US intelligence satellites.[50]

US military planners also argue that some key lessons from the conflict in Afghanistan for such enemies will be the realization that they need more anonymity, more emphasis on establishing cover organizations and proxies, and to create a campaign plan of sequential or multiple attacks from isolated cells and elements so that no US victory in any one area can halt the overall campaign. The classic case of Lenin's brother is a warning of what may come. The Czarist secret police found and killed Lenin's brother and destroyed the organization of which he was a part. In practice, however, they may have done a great deal in the process to shape Lenin's attitudes and behavior, causing him to become a far more serious threat.[51]

In fact, the Taliban and Al Qaeda fighters remaining in Afghanistan clearly seem to have learned how to adapt their tactics in the months following the fall of Kabul and Khandahar, and how to disperse their forces in ways that make them very hard to attack. In spite of a major increase in the deployment of US and British ground troops since the fall of Kabul, most US and British land operations have not been particularly successful in finding the Al Qaeda and Taliban fighters remaining in Afghanistan. While special operations forces can, in some instances, conduct operations in search of Al Qaeda fighters who escaped to or are operating in other nations in the region, senior military officials are increasingly depending on domestic intelligence and law enforcement agencies across the globe to assist in the search for and capture of Al Qaeda members who have fled from Afghanistan.[52]

---

[47] Philadelphia Inquirer, June 26, 2002.
[48] For example, see the warning of Secretary of Defense Donald Rumsfeld on June 3, 2002. Washington Post, June 4, 2002, p. p. A-1
[49] Sunday Telegraph, January 13, 2002, p. 17.
[50] The Washington Times, June 21, 2002, p. A-1.
[51] For a short unclassified overview, see "What's become of Al-Qaeda," Time, January 21, 2002, pp, 18-22.
[52] USA Today, June 25, 2002, p. 18.

This kind of loose, low-technology "distributed network" of fighters and terrorists may be able to present more serious dangers in the future – particularly in future wars where the opponent will be able to foresee the US use of similar tactics and take suitable action before the fighting begins or before the point at which such US tactics have a major impact.

It is at least possible that such forces can be organized to create a series of asymmetric attacks, phased over time, that would not depend on the existence or survival of some central or easily locatable command structure. Smaller, more conventional terrorist attacks, such as the car bombing of the US consulate in Karachi, Pakistan, which killed 12 people, have been at least financially linked to small cells of Al Qaeda and indicate that despite its fragmented command structure the organization remains capable of initiating future attacks.[53]

Based on the interrogation of several Islamic militants detained along the Afghan-Pakistan border, intelligence officials now believe that Al Qaeda may be "subcontracting" smaller operations to local terrorist groups, providing them the financial means and expertise to successfully carry out the planed attack.[54] In the future, such a force can be organized to focus on the most lethal, costly, or disruptive means of attack, and to avoid repeating past forms of attack. As is discussed in more depth shortly, the lessons of Afghanistan and foreign warfighting cannot be decoupled from the lessons of the anthrax attacks on the US, where it is possible that a very small cell or private individual directly attacked the US homeland. The literature captured from Al Qaeda in Afghanistan shows that it was both aware of a wide range of vulnerabilities in the US homeland (such as utility centers and the US national political structure) and had identified a wide range of methods of attack, many of which did not require large numbers of personnel.

Iraq and Serbia have already had considerable practical success in limiting the effectiveness of US air power by making use of extensive force dispersion, underground facilities, decoys, concealed supply depots, locating forces and facilities in civilian areas, using civilians as human shields, and using surface-to-air missile ambush techniques.[55]

It is also worth noting in this regard that a sophisticated military power like China fully recognizes the advantages of many aspects of the US approach to warfare, and is aggressively modernizing many aspects of its forces. At the same time, China has developed plans and doctrine to counter US technological advantages and the "revolution in military affairs." China has paid close attention to Serbian tactics, as well as those of Iraq in dealing with US air and cruise missile strikes since the Gulf War. It feels that high technology sensors, weapons, and nets can be countered through counter-reconnaissance measures such as camouflage and concealment, decoy, dispersion, and frequent force movements. It too has emphasized the use of underground facilities, landline communications, and concealed supply depots. It has developed an air defense training team called "Three Attacks, Three Defenses," that concentrates on attacking stealth aircraft, cruise missiles, and helicopters while defending against precision strike, electronic warfare, and enemy reconnaissance. It also emphasizes speed, asymmetric methods, and preemption or surprise attack as ways of trying to bypass superior conventional forces. [56]

Ultimately, the Afghan war may give rise to a new cliché about asymmetric warfare: Short of a political and grand strategic end to a conflict, any given defeat of a terrorist or asymmetric opponent simply forces the opponent to adapt.

---

[53] USA Today, June 25, 2002, p. 18; The New York Times, July 3, 2002.
[54] The New York Times, July 3, 2002.
[55] See Anthony H. Cordesman, The Lessons and Non-Lessons of the Air and Missile Campaign in Kosovo, Westport, Praeger, 2001.
[56] Office of the Secretary of Defense, Annual Report on the Military Power of the People's Republic of China, Report to Congress Pursuant to the FY2000 National Defense Authorization Act, Washington, Department of Defense, July 2002, pp. 11-14.

The Problem of States, Proxies, Black Flag, and Trojan Horse Attacks

There are other aspects of partial victory that need to be kept in mind in interpreting the lessons of the Afghan War. One lesson is that it remains impossible to prove a negative. If it is impossible to prove a nation like Iraq had some involvement in the acts of terrorism that triggered the conflict, it also remains impossible to prove that it did not. The same kind of uncertainties arose over Syria's role in the Marine Corps barracks bombing in Beirut, previous Libyan terrorist actions, and Iran's role in the bombings in Al Khobar, Saudi Arabia. Nothing about Afghanistan indicates that the US has found a solution to the state use of terrorists as proxies in asymmetric warfare.

This, in turn, raises the possibility that terrorist movements may deliberately attempt to falsely implicate states in their attacks and drag them into the conflict as allies, or make them false targets. The same may be true of states doing the same with other states. One has only to consider what would have happened if Al Qaeda had deliberately tried to implicate Iraq in the September 11 attacks, or if Iran had done the same thing. False proxies, black flags, and Trojan horses may be just as much a part of future asymmetric and terrorist conflicts as real ones.

Using Nations as Venues to Expand Conflicts: "Low-hanging Fruit"

It is uncertain that the US and British experience in Afghanistan provides lessons that can easily be applied to other states, particularly to Yemen, Somalia, and the Sudan. If the fighting in Afghanistan teaches terrorist movements to use distributed warfare, then they will steadily improve their ability to disperse and hide in unstable states. If they learn to use states as involuntary proxies, they will conduct operations in those states that attempt to make them targets, attempt to gain popular sympathy, and drag them into war.

Recent incidents across the Afghan border in Pakistan's southern provinces indicate that Al Qaeda and other extremist groups may be following this tactic. In late June, 10 Pakistani soldiers were killed while searching for Al Qaeda fighters in the village of Wana, roughly 120 miles southwest of the Pakistani town of Kohat that is reported to be home to several groups of Al Qaeda fighters. In early July, a shootout erupted between Pakistani security forces and a group of heavily armed Al Qaeda fighters at a security checkpoint. When the fighting subsided, four members of Al Qaeda were dead, along with three Pakistanis. Both of these incidents have occurred in a region where the Pakistani government has historically held little power.[57]

FBI intelligence has confirmed in recent months that several Al Qaeda and Taliban fighters who fled from Afghanistan during the first half of the military campaign have taken up residence in several major Pakistani cities. These fighters have attempted to make contacts with other militants who were previously trained in Osama bin Laden's terrorist training camps and may be developing plans to strike at US and coalition forces in the region.[58]

Reports in the Pakistani media indicate that the central government has deployed up to 70,000 security forces, including 8,000 to 10,000 army troops, along the Afghan border in an attempt to locate and capture Al Qaeda and Taliban insurgents who entered Pakistan following major coalition offensives in Afghanistan. An estimated seventeen US "operatives" who are trained in the local languages and provide intelligence information as to the whereabouts of Al Qaeda and Taliban fighters reportedly support these Pakistani forces. Additionally, the US recently allocated five UH-1 Huey helicopters to Pakistan for use in raids against suspected Al Qaeda positions. The concern among both Pakistani and US government officials is that Al Qaeda may now be working with Islamic extremists in Pakistan to coordinate future terrorist attacks against US and coalition forces in the region. US officials are privately concerned that Pakistan has not fully realized the strength or potential danger to regional stability that the remaining Al Qaeda forces may pose. Eliminating the Al Qaeda and extremist threat along this

[57] The Washington Post, July 4, 2002, p. 16.
[58] The New York Times, July 14, 2002, p. A-1.

border region will be an important element of any long-term nation building effort in Afghanistan, and will be crucial to ensuring continued stability within Pakistan.[59]

Various other factions in both Afghanistan and Somalia have already attempted to label their opposition as terrorists or supporters of Al Qaeda and have attempted to use US and British forces as their proxies to attack their opponents. Indeed, Ethiopia has done the same thing at a national level in an effort to weaken Somali separatists.

Several incidents in Afghanistan involving the possible US targeting of innocent civilians may have been triggered by rivalries between Afghan factions supposedly supporting the US-British coalition. These include the US attacks on two compounds in Hazar Qadam (in Oruzgan Province north of Khandahar) on January 24, 2002.[60] Similar uncertainties arose regarding a US air attack on a convoy in the area outside Khost on December 20, 2001 that the US felt was hostile but which Afghans claim consisted of tribal elders.[61] Following an air attack in and around the area of the village of Kakarak, Afghan President Hamid Karzai publicly asked that the US not launch military operations based solely on the intelligence of local informants.[62]

Since that time, the US and Britain have faced several situations in which it proved impossible to firmly identify a suspected Taliban or Al Qaeda target in time to strike a small, dispersed group of forces, and in which military action had to take place immediately, due to the risk of losing the target entirely. This has led to a number of suspected and confirmed strikes on civilians and friendly forces and the loss of substantial numbers of "windows of opportunity." For all of the advances in sensors and situational awareness, even close monitoring with UAVs does not yet provide a basis for accurately characterizing small human and vehicle movements, particularly in nations that have heavily armed civilian populations and in which males often move in groups isolated from women and children. Other sensor platforms designed to cover and target conventional forces – such as JSTARS and various electronic intelligence (ELINT) aircraft – have virtually no value in such cases.

Repeating the initial US and British victory in Afghanistan is one thing, repeating the hunt for Aideed in Somalia is quite another. What some analysts call "low hanging fruit" may simply be traps where US forces would have to wander off endlessly in search of enemies, alienating the local populace in the process.

Such risks will scarcely paralyze action against significant concentrations of real enemies, particularly when good targeting intelligence is available. Nevertheless, Afghanistan is scarcely a universal paradigm as to the ease with which such operations can be conducted, as US ability to distinguish clearly between friend and foe proved to be limited.

The Limitations of the Afghan Conflict and Lessons for "Iraq"

All of these factors provide an equal warning about going from a defeat of an extremely weak opponent, like the Taliban, to fighting a much stronger opponent like Saddam Hussein's Iraq. Iraq is a far better organized, stronger, and more popular tyranny. It is also a power with both modern internal security services and 2,200 tanks, nearly 400 aircraft, and heavy armored forces capable of serious war fighting. It retains an active air force and, more importantly, has rebuilt much of its land-based air defense net and has large numbers of surface-to-air missiles, radars, underground command centers, and redundant optical fiber command and control communications. It has at least some chemical and biological weapons, and probably some surviving Scuds and extended range scuds.

---

[59] The Washington Post, July 4, 2002, p. 16; The New York Times, July 14, 2002, p. A-1; The Boston Globe, July 4, 2002, p. 1.
[60] The New York Times, February 8, 2002, p. A-14
[61] Washington Post, February 7, 2002, p. A-12, February 20, 2002, pp. A-1. A-8, A-9.
[62] The New York Times, July 7, 2002, p. 8.
[63] Washington Post, February 7, 2002, p. A-12, February 20, 2002, pp. A-1. A-8, A-9.

If one consider the unique conditions of the Afghan conflict, and the luck that the US and Britain had with several key intangibles, it should be clear that Afghanistan is not Iraq, and that the military lessons of Afghanistan may at best have only limited applicability. At the same time, the fighting in Afghanistan also provides a warning about the dangers of putting too much emphasis on force strengths, military history, and the outcome of military analysis, and ignoring the fact that "intangibles" can suddenly and unexpectedly change the outcome of wars.

The size of Taliban and Al Qaeda forces -- and the performance of Afghan forces in their struggle with the forces of the former Soviet Union -- proved to be a poor measure of actual Taliban and Al Qaeda war fighting capability and endurance. It was not possible to predict how long Serbian forces would hold out in Kosovo, or to tie estimates of battle damage either to confirmed kills or to Serbian political behavior. Similarly, the force ratios at the start of the Gulf War gave a greatly exaggerated picture of Iraqi military strength. So did Iraq's performance in the final battles of the Iran-Iraq War.

While the lessons of the US and British military experience in Afghanistan may not translate directly into warfighting experience in Iraq or any other case, they do show that factors like political and military leadership, morale, adaptability, and other intangibles could again lead to a far more rapid Iraqi collapse than force numbers would indicate.

The problem is that the uncertainties inherent in "intangibles" can work in two directions. They can also favor opponents. For example, Iraqi nationalism, and hostility to the US because of the Gulf War and sanctions, could work to harden Iraqi resolve, and produce much stiffer resistance than during the defense of Kuwait. Events like the catalytic collapse of the Taliban and Al Qaeda were always *possible*, but were not *probable* or *certain*.

As a result, the Afghan fighting has shown that US air and missile power, intelligence assets, and targeting capabilities have become far more advanced than at the time of the Gulf War. They have not shown, however, that the US can *count* upon their shock effect to weaken Iraq in the same way as they did the Taliban and Al Qaeda forces.

Civilian Cover, Collateral Damage, and Human Rights as a Weapon of War

The enemy use of civilian cover and manipulation of casualties and collateral damage statistics is another lesson of the war. The Gulf War, the fight against Iraq since that time, Kosovo, and the Afghan War all saw efforts to use civilians and civilian facilities as shields against US and allied attacks. Distributed terrorist networks and state-sponsored asymmetric forces can be expected to make steadily more use of civilians as shields and civilian areas as hiding places. Extremist groups like Hezbollah and Hamas have long gone further, as have Kurdish terrorist organizations in Turkey. They deliberately blur the line between terrorist and combat elements; religious, educational, humanitarian, and medical elements and functions; and "peaceful" political elements and action.

In the process, both terrorist organizations (like Al Qaeda) and states (like Iraq) have found that well-organized political and media campaigns can blur the lines of responsibility for terrorist and military acts, enabling them to use collateral damage and human suffering as political weapons of war. Wrapping movements in the cloak of democratic values, exaggerating civilian casualties and suffering, and exploiting human rights and international law are becoming a steadily more sophisticated part of modern terrorism and asymmetric warfare.

So, for that matter, are religion and ethnicity and the ability to exploit the causes and suffering of others. Al Qaeda and Saddam Hussein, for example, have systematically exploited Islam, their identity as Arabs, and the Second Intifada. Milosevic and his elite did something very similar in Bosnia and Kosovo, exploiting Christianity and their Slavic identity with Russia. The Taliban exploited the Afghan situation by producing grossly exaggerated claims of civilian casualties. While an independent estimate by the Associated Press put the figure at roughly 500-600, the Taliban Ambassador quoted 1,500, Al Jazeera gave estimates as high as 6,000, and one

economist at the University of New Hampshire produced estimates of 5,000, and then 3,100-3,800. In some cases, the Taliban is known to have reported civilian casualties when there were no such casualties at all.[64]

The US faces a broad challenge in dealing with these issues because it has no clear methodology for estimating collateral damage, detecting it, or estimating its scale. The fighting in Afghanistan has shown, however, that in asymmetric wars pilots and UAVs cannot firmly differentiate enemy forces and facilities from civilians and civilian facilities – and that is the case in both urban and rural fighting environments. The same seems to be equally true even of Special Forces teams on the ground. Independent teams cannot get the full background on suspicious movements and behavior patterns, and groups dependent on local allies often get misinformation or deliberate lies. In balance, Special Forces teams like Team 555 demonstrated that groups on the ground can sometimes get much better information on the kind of unconventional combatants that fought in the Afghan War than any form of sensor or airborne platform, but no amount of "fusion" of data from combat aircraft, satellites, UAVs, SIGINT aircraft, and HUMINT on-the-ground presence could fully characterize many targets or distinguish combatants from civilians.[65]

This has led to a situation in Afghanistan in which a large number of civilian deaths have occurred not as a result of errant bombs, but rather as a result of bombs accurately hitting their targets, destroying suspected enemy positions, but killing civilians in the process. By relying in many instances on air strikes instead of ground forces to destroy Al Qaeda positions, the US has reduced the opportunities that it has to verify the target intelligence being provided by local Afghan warlords. US military officials argue that in many cases the targets that have been hit are legitimate, but they also concur that it is difficult to distinguish between civilian and military targets in urban areas. Afghan officials contend (and US officials dispute) that on at least three occasions the US attacked villages and convoys because it had received poor intelligence information from local warlords who were seeking to exact political revenge or gain political power. Additionally, observers question the level of force that, in some instances, the US has used to destroy suspected Al Qaeda targets.[66]

While precision-guided munitions are more accurate and less likely to stray from targets, the reality remains that they are only as accurate as the intelligence on the ground. During future fighting the US may need to revisit whether the use of air strikes to destroy targets hidden amongst civilians is the most efficient and least politically costly method of fighting the enemy.[67]

The US certainly seeks to minimize collateral damage in broad terms. Like other military powers, however, the US does not attempt to estimate either loss of life or the indirect costs of military strikes, particularly cultural and economic ones. Since the Vietnam War, it has avoided making any public body counts of either military or civilian killed. This allowed Iraq and Serbia to have some propaganda success in making grossly exaggerated claims of civilian casualties and collateral damage in past wars, and the Taliban to make equally exaggerated claims during the current fighting. While many human rights groups have been careful to examine such claims, others have taken them literally, and hostile countries and political factions have done the same.

---

[64] See Laura Kind, "A Civilian Toll in Afghan War Likely Lower," Philadelphia Inquirer, February 12, 2002, p. 1. The AP estimate of civilian deaths includes 70 in Kabul, 81in Khandahar, 55 in Jalalabad, 10 in Mazar e-Sharif, 18 in Heart, 25 around Spin Boldak, 55 in Karam, and 167 in the Tora Bora region (155 in Kama, 5 in Agom, and 7 in Pacair). Also see Barry Bearak, "Uncertain Toll in the Fog of War," New York Times, February 10, 2002, P. A-1.

[65] For a detailed description of the real world problems encountered on the ground, see Dana Priest, "In War, Mud Huts and Hard Calls," Washington Post, February 20, 2002, pp. A-1 and A-8.

[66] The New York Times, July 21, 2002, p. 1.

[67] The New York Times, July 21, 2002, p. 1.

The US was able to largely avoid the political backlash from civilian casualties and collateral damage during the Gulf War, although exaggerated casualty claims, particularly those relating to the "road of death," were a factor leading to the early termination of the coalition advance and the early declaration of a ceasefire. Since that time, the US has been less successful in countering Iraqi claims related to US post-war attacks, in part because it has decided to address such claims on a strike-by-strike basis without addressing the details.

Both the US and NATO had to address civilian casualties and collateral damage in Kosovo on a daily basis and often made mistaken claims or had to respond by admitting they were unable to confirm or deny many Serbian claims. This often gave Serbia a propaganda advantage during the fighting, although the Department of Defense largely succeeded in dodging the issue in its analysis of the lessons of Kosovo by only issuing its after action analysis in a report to Congress, and by doing so after the issue had lost major media impact. Additionally, the Department of Defense was able to minimize any potential fallout from civilian casualties by using a narrow definition of collateral damage that excluded many incidents. The data on Afghanistan are highly uncertain, but the following instances of collateral damage and civilian casualties seem to have occurred during the most critical part of the fighting:[68]

- *October 8, 2001:* Bombs kill four UN workers in Kabul.
- *October 13, 2001:* Navy air strike misses Kabul airport by a mile and kills at least four civilians.
- *October 16 and 26, 2001:* Red Cross warehouse in Kabul hit by bombs.
- *October 22, 2001:* AC-130 hits civilians in Chowkor Kariz village that do not seem to have had ties to the Taliban or Al Qaeda.
- *November 8-10, 2001:* Raids on fleeing supporters of Sheik Omar in Khakriz (north of Khandahar) may have killed 30-70 civilians (Taliban claims 300 were killed).
- *November 26, 2001:* Bomb dropped on Qalai Janghi prison during uprising kills five Northern Alliance troops and wounds five American soldiers.
- *November 29, 2001:* Bombs hit civilian homes in Sanjiri, west of Kandahar.
- *December 1, 2001:* Bombs hit Khazi Kariz, eight miles south of Khandahar Airport, possibly hitting two civilian homes.
- *December 5, 2001:* Bombs hit friendly targets near Shawalikot, 21 miles north of Khandahar. Hamid Karzai and the 5th Special Forces Group are hit by mistake, as well as civilians in the area. Three Americans, nineteen Afghan fighters, and an unknown number of civilians die. Other strikes on Argandab and Sokhchala also seem to hit civilians.
- *December 20, 2001:* An air strike hits a convoy near Khost. Some 12-27 persons are killed.
- *December 29, 2001:* Bombing attack on a weapons depot in a village called Qualai Niazi kills civilians, including part of a wedding party.
- *January 24, 2002:* US Special Forces kill sixteen to eighteen in Hazar Qadam. The US Defense Department later admits the dead were innocent civilians targeted by a rival Afghan faction.[69]
- *February 6, 2002:* CIA UAV fires a Hellfire missile that may have hit scrap gatherers near Zhawar Kili.[70]

---

[68] Washington Post, February 7, 2002, p. a-12; Washington Post, February 20, 2002, pp. A-1 and A-8; New York Times, February 8, 2002, p. A-14, and Philadelphia Inquirer, February 12, 2002, p. 1; General Tommy Franks testimony to the Senate Armed Services on February 5, 2002. http://www.centcom.mil/news/transcripts/General%20Franks%20Testimony%205Feb02.htm.

[69] Washington Post, February 22, 2002, p. A- and A-18.

[70] New York Times, February 12, 2002, p. A-7.

- *July 1, 2002:* An AC-130 gunship attack on anti-aircraft batteries kills civilians, including a significant portion of a wedding party in the village of Kakarak. The US admits to having fired on four villages in the area. The Afghan government estimates that 40-48 people were killed, and another 117 were wounded.[71]

  Despite initial investigations by Afghan and American personnel, it is still unclear what transpired. According to DoD officials, approximately 300-400 US led coalition and Afghan forces were engaged in an operation designed to locate and capture Al Qaeda and Taliban fighters still thought to be active in Oruzgan province, the birthplace of Taliban spiritual leader Mohammad Omar. Intelligence reports had indicated that "high-value individuals" were possibly "operating in the area." As part of the operation, a B-52 bomber dropped several bombs on cave complexes. An errant GBU-31 2000-pound bomb missed its target, however, no persons were injured as a result.[72]

  US officials state that an AC-130 gunship operating in support of the ongoing mission was fired upon and tracked by anti-aircraft (AA) guns numerous times and, therefore, returned fire, attacking suspected AA batteries in six different locations. In the process, numerous civilians attending a wedding party in the village of Kakarak were killed and a larger number were injured.[73]

  On July 6, the US acknowledged that civilians had died as a result of the raid in Southern Afghanistan. However, after an initial investigation, American officials were unable to find a large number of graves and are therefore unable to confirm the total number killed. Additionally, no evidence of an AA gun battery was found in Kakarak, though a truck-mounted AA gun was found roughly 10 miles from the village. According to military officials accompanying the investigative team, in addition to GPS and laser targeting devices, US ground forces had confirmed the source of the AA fire. The investigative team did, however, collect shell casings and shrapnel that will be analyzed as part of a large investigation. Additionally, the AC-130 was equipped with a video recording device or "gun camera" and the imagery that it provided might assist investigators in determining what occurred.[74]

The DoD conducted a formal investigation (headed by an Air Force one-star general) to determine the exact sequence of events leading up to and during the incident. Afghan President Hamid Karzai has appointed the Afghan Tribal Affairs Minister Arif Noorzai to lead an Afghan government investigation.[75] Additionally, the United Nations dispatched a team to the region of the incident to investigate damage to the local infrastructure.[76] An investigation into the matter that is posted on the Central Command web site ultimately expressed regret about the loss of civilian life, but asserted that the responsibility for the civilian casualties must be burdened by the individuals who chose to fire AAA weapons at coalition aircraft from civilian areas.[77]

In response to the incident in Oruzgan Province, the Afghan government issued its most vocal condemnation of a US military mistake since the start of the war. Afghan President Hamid

---

[71] The New York Times, July 7, 2002, p. 8.
[72] Time, July 15, 2002, p. 32; The Washington Post, July 2, 2002, A-1; The Associated Press, July 2, 2002; The Washington Post, July 9, 2002, p. 17.
[73] The New York Times, July 7, 2002, p.8.; Time, July 15, 2002, p. 32; The Washington Post, July 9, 2002, p. 17.
[74] The Washington Post, July 9, 2002, p. 17; The New York Times, July 7, 2002; The New York Times, July 4, 2002, p. 6; The Washington Times, July 12, 2002, p.10.
[75] The Guardian, July 2, 2002.
[76] The New York Times, July 7, 2002, p. 8.
[77] "Unclassified Executive Summary Investigation of Civilian Casualties, Oruzgan Province," U.S. Central Command web site, http://www.centcom.mil/News/Reports/Investigation_Oruzgan_Province.htm.

Karzai called on the US and Coalition forces to "take all necessary measures to ensure that military activities to capture terrorist groups do not harm innocent Afghan civilians."[78] Also, Afghan Foreign Minister Abdullah called on the US to re-evaluate the procedure for determining targets and launching attacks, stating, "This situation has to come to an end. Mistakes can take place, human errors are possible, but our people should be assured that every measure was taken to avoid such incidents."[79] For the first time since the collapse of the Taliban government, an anti-American protest was held in the capital city of Kabul, outside of the UN headquarters. [80] Additionally, observers reported increased levels of hostility among the ethnic Pashtun population of Oruzgan Province towards the continued American military presence.[81]

Despite the best attempts of investigators, the actual details of this incident may never be fully known. However, it does provide further evidence of the shortcomings of current US ISR capabilities. Marine Corps Lt. General Gregory Newbold, director of operations on the U.S. military's Joint Staff, notes that despite intelligence indicating the presence of Al Qaeda fighters and possibly leaders in the area, reports did not reveal that a large group of civilians had gathered for the wedding in Kakarak.[82] The incident also reveals the difficulty of successfully locating and capturing rogue fighters, who can take advantage of the rugged landscape to conceal their movements, as well as the willingness of Al Qaeda fighters to locate mortars, AA batteries, and other weapons inside areas populated by civilians.[83] In the aftermath of this attack, it may also be necessary for the US to re-evaluate its use of air strikes to destroy Al Qaeda positions. When striking at such a wide area and using such heavy firepower, it seems likely that civilians would be killed, yet some observers believe that, based on current evidence, US military officials failed to consider this before executing the attack.[84]

It should be stressed that it is unclear whether there really were civilian casualties in some of these cases and that this chronology scarcely logs high levels of casualties for a campaign involving some 18,000-19,000 air-to-ground weapons.[85] In spite of some efforts by human rights organizations, there simply are no accurate estimates of Al Qaeda, Taliban, or other Afghan casualties. It seems possible that total casualties range from 1,500 to 3,000 by late December 2001, but there is no way to estimate such figures or to separate the constant casualties from factional fighting, warlordism, and sheer banditry from those caused by the US and its non-Afghan allies.[86]

At the same time, it makes it clear that the problem is real, and there is little reason to suspect that it will not be even more serious whenever the US must deal with more serious threats or more intensive asymmetric wars.

---

[78] The New York Times (from wire reports), July 2, 2002.
[79] The Associated Press, July 2, 2002.
[80] London Daily Telegraph, July 5, 2002.
[81] The New York Times, July 14, 2002.
[82] The Washington Post, July 9, 2002, p. 17.
[83] The Washington Post, July 9, 2002, p. 17; The Washington Times, July 9, 2002, p. 1.
[84] The New York Times, July 21, 2002, p. 1.
[85] The counts of total weapons used at given periods are approximate. General Franks referred to 18,000-19,000 in his testimony to the Senate Armed Services on February 5, 2002. http://www.centcom.mil/news/transcripts/General%20Franks%20Testimony%205Feb02.htm.
[86] See Human Rights Watch and the Project for Defense Alternatives for some of the better estimates. Also see Chip Cummins, "Military Avoids Estimate of Civilian Deaths," Wall Street Journal, December 4, 2002; Barry Bearak, "Uncertain Toll in the Fog of War: Civilian Deaths in Afghanistan, New York Times, February 10, 2002, p.1; Laura King, "Civilian Death Toll in Afghan War Likely Lower," Philadelphia Inquirer, February 12, 2002, p. 1; David Zucchino, Times, June 2, 2002, p. 1; William M. Arkin, "Checking on Civilian Casualties," Dot.Mil, April 9, 2002; and the Estimate, January 11, 2002.

Designing Weapons to Deal with Collateral Damage

The other side of this coin is that properly designed weapons, targeting, and ISR systems can now greatly reduce the problem of collateral damage and civilian casualties. The global reaction to the fall of the Taliban and Al Qaeda shows that the US and its allies can continue to act in spite of enemy propaganda and the use of collateral damage as a political weapon, and that media and human rights criticism that ignores military reality and attempts to make any use of military force impossible has little effect. The media and the public will and should react to every attack that produces any form of civilian casualties, friendly fire, and/or collateral damage. If the world accepts the need for military action, however, it will also have to accept the inevitability of such losses.

The US and its allies do, however, have to demonstrate that they have made a good faith effort to minimize collateral damage and civilian casualties. Ever since Vietnam, the history of war has shown that each improvement in military capability is matched by demands for higher standards of performance.

This already is leading to steady improvements in weapons and targeting accuracy, the use of sensors to prevent attacks with high civilian losses and collateral damage, and new screening methods for target selection and strike authorization. The US and British efforts to develop smaller precision-guided weapons, like 250-pound versions of the joint direct attack munition (JDAM), is one example. The use of precision-guided, small-diameter bombs (SDBs) offers a way to strike against roughly 70% of the targets that might normally be hit with a 1,000 or 2,000-pound weapon. It offers a way to carry far more munitions per sortie, reduce the number of sorties required, achieve far more lethality per sortie, and still sharply reduce collateral damage. It can also achieve ranges of 60-70 miles when launched at high altitudes. [87]

Miniature cruise missiles with multipurpose warheads, like the Low Cost Autonomous Attack System (LOCAAS), are under development for the same reason, as well as to improve the strike capabilities of weapons like the Predator and future UCAVs. So are so-called "spiral" SDB weapons that would have autonomous or optical sensors and could search a wide area until they were homed in on a specific target. [88]

Those advances are supported by virtually every advance in ISR capability. That is equally true of the series of major improvements in target selection and review made throughout the air and missile targeting process after the strike on the Chinese Embassy in Belgrade during the air campaign in Kosovo.

Advances in accuracy offer the military the best of both worlds: more lethality coupled with less collateral damage, and they can apply to the delivery of unguided or "dumb" weapons as well. UAVs and other sensors can greatly reduce the need to use artillery to fire into wide areas rather than at specific targets. The B-52s that dropped dumb bombs during the Afghan conflict made use of both far better navigation and targeting capabilities than ever before, but also made the first use of the Wind Corrected Munitions Dispenser in combat to deliver weapons like the CBU-87 Combined Effects Munition (CEM). This is a strap on, $10,000 tail kit that allows delivery with greater accuracy from higher altitudes and can also be used with weapons like Gator mine and the new Sensor Fused Weapon (SFW). It scarcely eliminates the problems of using unguided area weapons, but it does reduce them.[89]

There still, however, are areas where the US can do more. British experiments with weapons designs that deactivate the warhead when systems malfunction or lose their targeting lock are one case in point. Another is the need to come to grips with long-standing problems in

---

[87] James G. Roche, "Transforming the Air force, Joint Forces Quarterly, Autumn/Winter 2001-2002, pp. 9- 12; Bill Sweetman, "The Falling Price of Precision, Jane's International Defense Review, April 2002, pp. 46-50.
[88] Bill Sweetman, "The Falling Price of Precision, Jane's International Defense Review, April 2002, pp. 46-50.
[89] Aerospace Daily, December 5, 2001.

cluster munitions and dumb bombs that effectively turn them into mines when they do not explode. The use of improved release systems, navigation and targeting aids, and wind correction can help up to a point, but the US dropped some 1,150 cluster bombs on 188 locations in Afghanistan as of early February.[90] They had many of the same defects as the weapons dropped in Vietnam and the Gulf War, and often produced duds that could be lethal if handled or contacted. This is not a problem that should take three decades to solve.[91]

The Afghan conflict was the first time that the new CBU-103 cluster bomb was used. It is equipped with "course-correcting tail fins" that enable it to compensate for the significant drift that can occur when a bomb is dropped at an altitude of more than 15,000 feet. A new cluster bomb, which has a small quantity but more powerful bomblets, is being developed. In an attempt to improve its accuracy, weapons designers have incorporated a heat-seeking device into the new design, which will allow the bomb to more closely track and hit enemy positions.[92]

Pentagon officials estimate that roughly 5% of cluster bombs do not detonate upon impact. The decision to package airdropped food in the same color as cluster bombs further increased the risk that civilian deaths would result from unexploded cluster bombs.[93]

More generally, however, the US needs to examine ways in which it can design its ISR sensors and systems, and intelligence and targeting systems, specifically to minimize collateral damage and civilian casualties and to provide some form of near-real time warning and/or imagery to allow rapid confirmation of whether mistakes have occurred. This does not mean paralyzing operations; it does mean changing design criteria and methods to allow operations to be sustained with both minimal cost to the innocent and minimal political backlash.

One longer-run issue that needs to be addressed is the need for some mix of methodology and technology that can produce meaningful body counts – at least over time. The disastrous emphasis on body counts in Vietnam – with its endless phony casualty figures and pressure to take risks in attacking civilian targets – is scarcely an example to follow. It is fairly clear, however, that if the US does not produce reasonable estimates of its own, others will produce unreasonable and politicized lies. Beyond that, minimizing casualties does require an understanding of what casualties are. Physical collateral damage can always be fixed or replaced, people cannot.

Another task will be to sensitize the media and the world to the fact that Taliban and Al Qaeda use of civilian facilities and populations to shelter their forces are violations of the laws of war. Like the Serbs and Iraq, the Taliban and Al Qaeda made extensive use of civilians and civilian facilities as human shields. The US and its allies cannot prevent this, but it has to be clear to the world that the moral and ethical problem lies primarily with the forces that engage in such practices and not with the US and its allies.[94]

CBRN Weapons and Attacks

It is now clear that Al Qaeda had a major effort underway to examine chemical and biological weapons, and was examining nuclear terrorism in terms of attacks on power plants, radiological weapons, and crude nuclear devices. At least one Indian general drew the lesson from the Gulf War that, "No one should go to war with the US without nuclear weapons." It is equally possible that terrorists will draw the lesson that if they can only launch one major series of attacks, they should not do so without CBRN weapons. States, on the other hand, may learn both lessons. They may see the value of giving proxies aid in developing CBRN weapons, and they may see acquiring CBRN weapons as a key deterrent to US action in asymmetric wars.

---

[90] Chicago Tribune, February 6, 2002.
[91] See Dallas Morning News, May 31, 2002.
[92] The Los Angeles Times, January 21, 2002, p. A-1.
[93] The Los Angeles Times, January 21, 2002, p. A-1; Chicago Tribune, February 6, 2002.
[94] See W. Hays Parks, "Air War and the Law of War," in Air Force Law Review, 32.1, (1990).

They may also make the judgement that having the ability to launch on warning or launch under attack against the US and/or US interests will either deter the US or force it to limit its range of attacks and goals in war.[95]

The US still has not resolved the source of the anthrax attacks that followed the attacks on the World Trade Center and the Pentagon. This raises the prospect that states or other terrorists may piggyback on a conflict in unpredictable ways and that future opponents may see a counterterrorism campaign or asymmetric war as a window of opportunity in terms of US vulnerability and confusion rather than as a deterrent.

This raises major new questions about the future of arms control and the value of existing arms control agreements. It also raises questions about the ability of states and terrorist groups to conduct anonymous attacks with highly lethal or costly CBRN weapons, particularly those of the biological variety. This not only raises the specter that one lesson of Afghanistan is that future opponents should use smallpox (or its equivalent), but it also raises the specter of how the US would deal with anonymous attacks on its economy equivalent to the hoof-and-mouth outbreak in Britain or the swine fever outbreak in Taiwan.

Finally, it raises many of the same questions that Iraqi CBRN facilities and weapons did during the Gulf War. For well over a decade, the US has been developing sensors and targeting aids designed to "look" inside buildings and suspect facilities. It is unclear that any such UAVs or unattended sensors are operational or that they are effective. UAVs can cover traffic going into and out of fixed and hardened facilities, but not activities inside them. CBRN weapons and activities can be dispersed into relatively small facilities, as can many delivery systems and munitions. In many cases, it is impossible to distinguish CBRN weapons and facilities from ordinary weapons and military facilities, and it is equally difficult to distinguish military/CBRN facilities from civilian facilities.

The physical destruction of CBRN weapons and facilities is problematic. Even when CBRN weapons and/or facilities are located and thus can be targeted, there is the risk that an attack on them will result in unintentional dissemination of CBRN agents. Thus, the top priority in attacking such targets would be to limit the risk of such dissemination rather than to limit collateral damage in the immediate area. The US is attempting to develop munitions that would produce burning effects intense enough to significantly mitigate against that problem. The US is also attempting to develop a less destructive means of containing CBRN materials in the form of sealing foams that would create hardened cases around their targets. At present, however, the possibility that unintentional dissemination of CBRN materials would occur in an attack remains a problem, and had Al Qaeda been known to possess those materials the air war in Afghanistan would have been seriously complicated.

Hard Target Kill Capability

Afghanistan had only a few classic shelters and hard target left over from the days of the Soviet occupation and none had serious military meaning. It did, however, have many caves and a number were improved by Al Qaeda to become highly survivable and well concealed targets. The US used a wide range of ISR systems to try to find and characterize such caves and shelters and did find many. It could virtually never, however, fully characterize the nature of the target any more than it could "look inside" ordinary buildings and surface facilities. Many were found only by ground troops who could penetrate into caves, and many may have never been discovered or assigned the right priority.[96]

---

[95] For typical reporting on Al Qaeda activity see; Washington Post, March 12, 2002, p. 1; Washington Times, April 11, 2002, p. 1; Associated Press, February 1, 2002; Time, June 24, 2002, p. 24; Reuters, December 12, 2002; New York Times, February 26, 2002, p. 1, March 20, 2002; March 23, 2002, p. 1; USA Today, March 26, 2002, p. 10.

[96] For discussion of US wartime technology developments see Los Angles Times, March 17, 2002, p. 1; Washington Post, March 26, 2002, p. 16.

During the fighting, the US placed a great deal of public emphasis on its use of bombs and weapons that had been specially configured to attack caves and other hardened targets. Those weapons included the use of the 15,000-pound "Daisy Cutter" against a mountain face with a number of caves.[97]

They included the GBU-28 "bunker buster," a 5,000-pound bomb originally developed during the Gulf War to kill hard targets like the shelters used by Saddam Hussein. This weapon uses a GPS or laser guidance system and can use software to produce a deep dive to increase its penetrating capability. Additionally, the weapon has been given a new cap with an elongated spike made of a nickel-cobalt-steel alloy that can double the penetration of the weapon against some buried surfaces. Other such weapons include the GBU-15, GBU-24, and GBU-27. Also used was the AGM-130 rocket propelled bomb - a 2,900-pound weapon with a similar warhead that F-15Es can fire at ranges of 40 miles from a target and which has both GPS and video camera guidance.[98]

The most striking such weapon was new form of fuel-air explosive, the BLU-118/B thermobaric munition, which was dropped on March 2, 2002 against Al-Qaeda and Taliban targets near Gardez, on the same day the USAF flew its first A-10 sorties in close air support missions out of bases in Pakistan. Like the earlier FAE weapons, the BLU-118/B uses a fuel-rich chemical mixture to combat, rather than detonate, in a way that produces a long duration, high temperature pulse that creates an extremely high overpressure that can kill people (10-lbs per square inch) and damage vehicles (50-lbs per square inch). It uses the same penetrating warhead as the 2,000-pound BLU-109 bomb and can be used on GBU-15 glide bombs, GBD-24 laser-guided bombs, and AGM-130 air-to-ground missiles.[99] The BLU-118/B is a first generation weapon, however, and much more sophisticated forms of this weapon are under development for hard target kills.[100]

US Special Forces may have also made use of an experimental specialty cannon called the Deep Digger, which is designed to eat into caves and bunkers by using a rapid series of explosions and secondary explosions. The USAF prepared 50 AGM-86D cruise missiles with hard-target kill warheads, but may not have used them.[101]

It is unclear that most of these strikes produced any meaningful battle damage either for targeting reasons or because the effects were not serious enough. In at least some cases, the US seems to have fired such weapons against caves to inhibit their use and struck at their cave entrances more to intimidate those inside than to try to actually damage or kill the target. It is unclear whether any such attacks have had any real success in terms of major damage. It is clear that caves with rock overhangs or other shielding terrain features at their entrances were difficult for the US to target and attack.

It short, the US may be developing effective intelligence, targeting, and kill capabilities. It did little more in Afghanistan, however, than bang away at hardened targets with unknown psychological and deterrent effects.

Conflict Termination, Nation Building, Grand Strategy, and the Aftermath of Military Victory

During the last few months, it has also become clear that it may be much harder to win the peace than the actual war, particularly in terms of Afghan nation building and in ensuring that some Taliban-like movement does not arise in the future. There already have been an attempted assassination of President Karzai, the successful assassination of Afghan Vice President and Minister for Public Works Haji Abdul Qadir, serious clashes between warlords,

---

[97] New York Times, December 11, 2002, p, 1; Jane's Defense Weekly, March 13, 2002, p. 6..
[98] Washington Post, December 13, 2001, p. 22; Jane's Defense Weekly, May 2, 2001, pp. 24-27.
[99] Jane's Defense Weekly, March 13, 2002, p. 6.
[100] Jane's International Defense Review, April 2002, p. 3.
[101] New York Times, December 3, 2001; Jane's Defense Weekly, May 2, 2001, pp. 24-27.

the murder or assassination of Afghan tourism minister Abdul Rahman, and cases where Afghan factions have tried to use the US and British militaries to achieve their own tactical and political ends.

Neighboring powers, like Iran and Pakistan, are starting again to play the "Afghan Great Game," and any effort to create even a federal or cantonal Afghan state faces major political, ethnic, and economic challenges. As the Gulf War, Lebanon, Somalia, Kosovo, and Bosnia have shown, even the most impressive tactical or strategic military victory can lose much or all of its meaning if it is followed by a diplomatic and political power vacuum or failure to achieve grand strategic goals.[102]

It is also unclear at this point how the US will really attempt to come to grips with this aspect of the war, if at all. It is very clear that the Department of Defense does not want to keep US forces engaged or provide massive support to an allied peacemaking force. The preferred goal seems to be to try to create an Afghan national army and police force. On this front, however, the US faces numerous challenges.

The US and other coalition partners have set a goal of establishing a 60,000-person Afghan National Army (ANA), which will have the skills, weaponry, and discipline necessary to assist in maintaining peace and stability within Afghanistan. In order to promote the legitimacy of the new army, in as much as possible, Afghanistan's various ethnic groups should be properly represented within it.[103] If any particular ethnic group holds disproportionate power within the army or if the soldiers filling the ranks disproportionately represent any one ethnic group the army may be viewed by some Afghans as a threat and possibly as an enemy. In May 2002, coalition nations met in Geneva to discuss funding the new army and concluded that roughly $290 million would need to be spent to cover the costs of creating and maintaining the new force. At that same meeting, the US agreed to pay $70 million of the total cost. Additionally, the Afghan Ministry of Defense (MoD) agreed to provide weapons and assist in the recruitment of men from Afghanistan's 32 ethnically diverse provinces.[104]

On May 14, 2002, a small group of US Army Special Forces began training the first battalion of Afghan recruits for what is planned to be an eighteen battalion Afghan army. At the same time, French troops began training a second battalion of recruits. As of November 13, four battalions of Afghan soldiers had graduated from training - two of which were trained by US Special Forces and two of which were trained by French soldiers.[105] The total number of Afghans who have graduated from the training is approximately 1,400, which is only about 44% percent of the total that had been hoped for (each battalion is intended to contain 800 persons).[106] The high dropout rate has been attributed to the low wages given to the trainees.[107] Though efforts have been made to publicize the amount of pay that enlisted members in the new army will receive – recruits receive $30 per month while in training, and upon completion of the POI see their salaries increase to $50 per month – recruits often arrive at training under the

[102] The problems involved inside and outside Afghanistan are the subject of daily reporting. Good early summaries of the problem appeared in "Afghanistan's Interim Government: Strengths and Weaknesses," The Estimate, December 14, 2002. For typical reporting on the problems involved see: New York Times, February 21, 2002, p. 1, June 6, 2002, July 11, 2002, July 23. 2002; The Estimate, June 26, 2002; Washington Post, February 21, 2002, p. 15, July 8, 202, p. 13, July 9, 2002, p. 1; The Economist, June 8, 2002, pp. 22-24; June 22, 2002, p. 39, July 13, 2002, p. 35; Los Angeles Times, February 25, 2002, p. 1; Boston Globe, June 24, 2002, p. 1; ; USA Today, June 28, 2002, p. 17.

[103] Todd Pitman, "Afghanistan's New Army Grows By Battalion, but Struggling to Keep Soldiers in the Ranks," The Associated Press, Oct. 3, 2002.

[104] The Boston Globe, June 24, 2002, A-1, The Wall Street Journal, June 27, 2002.

[105] Sgt. Don Dees, "Fourth Afghan Battalion Graduates," ArmyLINK News, http://www.dtic.mil/armylink/news/Nov2002/a20021118aghangraduate.html.

[106] Margaret Coker, The Atlanta Journal-Constitution, "War in Afghanistan: One Year Later," October 6, 2002.

[107] Margaret Coker, The Atlanta Journal-Constitution, "War in Afghanistan: One Year Later," October 6, 2002.

impression that their pay will be much higher. Many of these same recruits leave the training program within the first two weeks, leading to a battalion size of roughly 400 men by the end of only the second week of the POI. Long-term retention numbers are also problematic. Of 550 soldiers trained by the British during a six-week program in April, roughly one-third have since deserted.

The third battalion that graduated is noteworthy in that it was the first battalion of Afghan trainees whose schooling involved a company-sized, live-fire exercise that incorporated mortars, machine guns, and rifles.[108]

It may also be worthy to note that, in addition to what might be thought of as traditional basic infantry training, US Special Forces are also providing Afghan officers with one hour of instruction each week in military ethics.[109] That ethical training involves discussions via interpreters in which the US trainers present Afghan officers with hypothetical situations in which they are asked to consider how they would respond.[110]

The lack of a basic communications infrastructure, however, has hampered efforts to recruit enough soldiers and to start training on time. Often only two-thirds of a battalion will be present at the start of a ten-week-long Program of Instruction (POI). Additional recruits will slowly arrive throughout the first few weeks of the POI, causing problems for the instructors who cannot continually extend the training period and retrain those recruits who missed the initial weeks. While the US Army has organized airlifts to transport recruits from more remote locations to the training center outside of Kabul, starting and completing training on time remains a long-term challenge.[111]

Further complicating the situation has been the inability of the Afghan MoD to follow through on its pledge to provide weapons, which has led to a shortage of Kalashnikov series assault rifles, medium machine guns, rocket-propelled grenade launchers, recoilless rifles, and mortars. To help alleviate the equipment shortage, Romania has donated 1,000 AK-47s and over 200,000 rounds of 7.62mm ammunition, Turkey has provided uniforms, Italy has supplied antiriot gear, and Germany has provided vehicles.[112]

Outside nations, however, cannot help resolve the shortage of recruits, and unless regional warlords agree to relinquish control of their troops and arms, there may be only limited success in creating a multi-ethnic, national army. The US had initially hoped that each of Afghanistan's 32 provinces would provide twenty men per battalion, thus ensuring an ethnically mixed force. Several provinces, however, have been unable to supply such manpower.[113]
[114]

During the training process, US and other coalition instructors must overcome language barriers, as well as the educational background of the Afghan recruits, 70% of whom are illiterate. Language specialists must translate all orders into Farsi or Pashtu, and, in some cases, less known Afghan dialects. Though recruits are continually assigned to multi-ethnic teams and encouraged to allow their competitive instincts to be directed towards defeating other teams rather than one another, ethnic divisions remain a stumbling block to the successful formation of

---

[108] Sgt. Don Dees, "Third Battalion of Afghan Soldiers Graduate," ArmyLINK News, http://www.dtic.mil/armylink/news.
[109] Sgt. Don Dees, "Afghan Officer Training Covers Ethics," ArmyLINK News, http://www.dtic.mil/armylink/news.
[110] Sgt. Don Dees, "Afghan Officer Training Covers Ethics," ArmyLINK News, http://www.dtic.mil/armylink/news.
[111] Jane's Defense Weekly, June 12-19, 2002, pp. 26-27; The Boston Globe, June 24, 2002, A-1.
[112] Jane's Defense Weekly, June 12-19, 2002, pp. 26-27; The Boston Globe, June 24, 2002, A-1, The Wall Street Journal, June 27, 2002.
[113] The Wall Street Journal, June 27, 2002.
[114] Jane's Defense Weekly, June 12-19, 2002, pp. 26-27, The Wall Street Journal, June 27, 2002.

the ANA. Further compounding uncertainty about the growth of the ANA is the unclear status of 18,000 former United Front Mujahideen fighters who are under the command of Afghan Defense Minister Marshal Fahim Khan and are currently being "reorganized." Some observers feel that Mr. Khan opposes the development of a multi-ethnic Afghan army because such a force would undermine the level of power and influence that ethnic Tajiks, who comprised much of the Northern Alliance, currently hold in Afghanistan's armed forces.[115]

Military officials agree that ten weeks is not nearly enough time for troops to develop the skills necessary for effective performance in an environment like Afghanistan. The lack of previous experience and the shortened training period are further affected by the lack of a pre-existing corps of non-commissioned officers (NCOs). US commanders are working towards a resolution of this problem. In an attempt to address longer-term training deficiencies, the US plans to organize additional "follow-on training courses" which will allow the new army to refine and develop much needed "real world" skills. French troops who are responsible for training the second through fifth battalions of the ANA indicate that it will take between one and two years for the initial five battalions to become the strong "nucleus" of the new army. However, before additional training courses can be initiated, long-term equipment and funding problems must be resolved.[116]

It is likely that the Afghan government will remain dependent on Western aid to alleviate both of these problems. In the absence of an income tax, Afghan Finance Minister Ashraf Ghani estimates that even if warlords begin paying the customs taxes that they owe the new government, only $80 million of the roughly $460 million total Afghan budget will be funded. Western nations will likely be called upon to assist in the elimination of this revenue shortfall.[117]

While US military officials are cautiously optimistic that the security situation in Afghanistan will remain stable enough to allow new battalions of the ANA to receive additional training and develop additional confidence and discipline, the security situation could potentially worsen, threatening the survival and long-term prospects for the ANA. Additionally, the immediate mission and role of ANA battalions, once out of training, remains unclear. Given the challenges that must be overcome before the ANA can be considered an effective security force, a continued US/Coalition military presence in Afghanistan will be a key element of any post-conflict strategy.[118]

Other obstacles to a successful nation-building attempt in Afghanistan include the continued hostilities among ethnic groups and continued fighting among warlords. US officials are increasingly concerned that Al Qaeda leaders may be holding discussions with several rogue warlords, including Gulbuddin Hekmatyar, an influential Pashtun who still commands a small group of between 1,000 and 2,000 troops and has access to money that could be of assistance to any Al Qaeda attempt to reorganize. The CIA considered Hekmatyar to be such a serious threat to peace and stability in Afghanistan that it unsuccessfully attempted to assassinate him by firing a missile from a Predator drone at what was thought to be his location.[119]

Following a July 2002 incident in Oruzgan province in which a US AC-130 gunship accidentally fired on a wedding party in the village of Kakarak, killing and injuring several civilians, Kandahar Governor Gul Agha Shirzai met with the governor of Oruzgan and several provinces dominated by ethnic Pashtuns. The meeting resulted in an announcement by Shirzai that the governors of the region would require the US to contact them for permission before initiating military actions in any of the Pashtun provinces. More significantly, however, the

---

[115] Jane's Defense Weekly, June 12-19, 2002, pp. 26-27, The Wall Street Journal, June 27, 2002
[116] Jane's Defense Weekly, June 12-19, 2002, pp. 26-27, The Wall Street Journal, June 27, 2002.
[117] The Wall Street Journal, June 27, 2002.
[118] Jane's Defense Weekly, June 12-19, 2002, pp. 26-27.
[119] The Boston Globe, July 4, 2002, p. A-1.

meeting also resulted in the creation of two new, armed militias that will be overseen not by the central government but instead by the regional governors. Though one of the militias is designated to work along with US and coalition forces in hunting for rogue fighters, US officials view the action of the governors as undermining Coalition attempts to create a national army. Additionally, in the event of future instability, the regional governors could use the new militias as their own security force, similar to the manner in which Afghan warlords utilized their own militias during the internal ethnic fighting that engulfed the nation for a decade.[120]

The events of July 1, when US firepower accidentally killed several civilians in Oruzgan province, appear to have caused the Bush administration and USCENTCOM to re-evaluate its initial view of the role that US military forces should play in Afghanistan. Following the incident, the commander of US forces in Afghanistan, Lt. General Dan McNeil, arranged for civil affairs officers and humanitarian workers to go to the areas affected by the US military action. These civil affairs officers are to work closely with Afghan villagers and other US forces in rebuilding infrastructure devastated during the endless years of war that have occurred. Projects include the construction of wells, schools, and a power and water plant. Beyond these tasks, however, the goal of these forces is to win-over the "hearts and minds" of the native Pashtun population which, following the accidental US attack, expressed anger at continued US military operations in the province, long a haven of Taliban and Al Qaeda militants.[121]

As the fighting in Afghanistan continues, however, US civilian and military leaders are examining the necessity of adapting the force mix in Afghanistan. With most remaining Al Qaeda and Taliban fighters operating in small groups along the border with Pakistan, these officials argue that the next step in ensuring Afghanistan's future stability depends on the US military's ability to build a trusting relationship between itself and the ethnic tribes that make up the Afghan population. Such a mission would involve the participation of greater numbers of civil affairs officers than are currently stationed in Afghanistan and would entail expanding a current program under which the US maintains military contacts with several Afghan villages. Civil affairs battalions, though, are in short supply, as are other branches of the Special Forces, and there is a lack of sergeants to man future Special Forces teams. USCENTCOM is also evaluating the possibility of dispatching Army military police (MPs) to Afghanistan to serve as a quick-action protective team for US forces currently located throughout the country. Regardless of any personnel shortages, the fact that the US is reevaluating the role which the military will play in rebuilding Afghanistan signifies a realization on the part of the Bush administration that the problems that Afghanistan faces go far beyond the threat which remaining Al Qaeda fighters pose.[122]

Indeed, the fact remains that grand strategy always requires more than military victory and any commander or policymaker who cannot recognize this fact indulges in strategic infantilism at the cost of becoming a strategic jackass. Conflict termination cannot always end in successful nation building. Transforming cultures, political systems, and economies is far harder than most advocates of nation building would like to admit, and is often impossible or too costly to attempt. Nevertheless, victory is only victory when the use of force is tied to a satisfactory political and economic outcome and a satisfactory level of post-conflict stability.[123]

It should also be stressed that even if the Afghan problem were solved, it would still not be a grand strategic victory. If the US must mix force with diplomacy and allied support in some 68 countries, it must have a broader definition of victory and be able to both communicate that

---

[120] See story by Alissa J. Rubin, The Los Angeles Times, July 15, 2002.
[121] The Washington Times, July 15, 2002, p. A-1; The Los Angeles Times, July 15, 2002.
[122] The Washington Times, July 15, 2002, p. A-1.
[123] For a very good in-depth discussion of these issues, see John R. Boule II, "Operational Planning and Conflict Termination," Joint Forces Quarterly, Autumn/Winter 2001-2002, pp. 97-102.

definition and progress towards meeting it. As of this writing, US efforts at this are episodic at best, and the overall grand strategy and conflict termination aspects of the US battle against Al Qaeda are as unclear as its goals regarding the defeat of "global terrorism."

There is a curious further irony in the fact that the US government and Defense Department seem to have been only marginally more concerned with planning for conflict termination and grand strategic outcomes in Afghanistan, than they were during the Gulf War and the war in Kosovo. This failure to give conflict termination the same priority as military operations, and grand strategy the same priority as strategy, is particularly striking because many senior officials in the present Bush Administration have been so deeply involved in trying to come to grips with the end result of a similar failure in the Gulf War and the survival of Saddam Hussein.

There is a similar irony in the fact that their legitimate criticism of the vacuous moral posturing of the Clinton Administration and the hopeless optimism and false promises surrounding the Dayton Accords and conflict aftermath in Kosovo has tended to be replaced by an equally vacuous effort to avoid being deeply involved in the aftermath of Afghanistan.

To put it bluntly, Afghanistan is yet another warning that American war planners must plan for true victory, and not simply the defeat of enemy military forces. The time – if it ever existed -- in which military planners could only plan for war is long over. In fact, it seems fair to say that war plans that do not include peace plans have always been signs of gross military incompetence. The fact that most post-conflict peace involves some form of prolonged occupation, peace keeping, and nation building may be unpopular, but that does not change the fact that military action cannot have satisfactorily positive lasting benefits unless the military (and their political leaders) are willing to pay the necessary price. In war, more than any other human activity, no one should begin what they are not prepared to finish, and few modern wars will have outcomes where desirable governments, economies, societies, and patterns of alliance magically occur simply because the fighting ends. The officer who cannot adjust to this reality is unfit to wear his or her uniform. The political leader unwilling to face this reality is, at best, a recipe for military futility and, at worst, a recipe for disaster.

Power Projection and Force Transformation

Again, it is dangerous to generalize without more detailed data on the forces engaged in the conflict and the history of their battles and engagements, and it is dangerous to generalize at all, given the unique character of the Afghan conflict. Nevertheless, some lessons about force transformation and power projection do seem clear.

The Afghan War has again demonstrated the need to be able to rapidly project land and air power at very long distances. It has demonstrated the value of strategic airlift and long-range strike capability, and the ability to operate with limited forward basing. At the same time, it has confirmed the value of light forces, like Special Forces, in counterterrorism efforts and some forms of asymmetric warfare. Additionally, the conflict in Afghanistan has demonstrated that major regional contingencies/wars in which the US must fight against heavy armor and heavily defended airspace are only one type of possible scenario in a changing spectrum of potential conflicts.

During the fighting in Afghanistan, the US has relied heavily on strategic airlift capabilities to transport forces and equipment to the battlefield and forward staging areas. The heavy reliance on airlift capabilities, however, has revealed several shortcomings in US airlift capability. An Air Force study anticipates an increase in the need for strategic airlift capabilities and call for the purchase of 60 new C-17 cargo planes. The USAF estimates that of 5,500 missions in Afghanistan, the C-17 was involved in 2,872. Additionally, it claims that C-17s

have transported roughly 44,000 personnel, 100,000 tons of cargo, 636 medical patients, and 565 Al Qaeda and Taliban detainees.[124]

The Marine's fleet of roughly 50 KC-130's is aging and in need of serious maintenance and upgrades. As of January, a majority of the KC-130s in Afghanistan were not equipped with night-vision equipment and the advanced radar systems used in combat aircraft. Because the aircraft are vulnerable to attacks from shoulder-launched missiles - a popular weapon among Al Qaeda and Taliban fighters - they have been forced to fly only at night, making night navigation capabilities essential. A lack of night-vision and terrain avoidance radar was cited by the DoD as a major factor leading to a January 9 accident in which a KC-130 crashed into the side of a mountain in Afghanistan. The KC-130J, the next generation of the aircraft, is equipped with the necessary night navigation equipment. The lack of such equipment on current aircraft, however, suggests that the military must focus additional funding on improving operational effectiveness.[125]

While Afghanistan did not stress the total pool of US airlift assets, it did indicate how critical having adequate total lift capacity can be in larger wars. It is important to note in this regard, that various war games show that the US is 10 to 15 million ton miles short of a requirement for total strategic lift capacity, which is 54.5 million ton miles. The US is now buying C-17s at the rate of one a month to fill this gap, and the C-17 showed in Afghanistan that its ability to use relatively unimproved airfields does give it a practical advantage. The US has an inventory of roughly 120 C-17s and plans to buy 60-120 more. It is also replacing the engines and updating the avionics on its 23 aging C-5s, and seeking to buy 150 more C-130J tactical airlift aircraft.[126]

US airlift would still, however, be under severe strain to support one major regional contingency through at least 2019, and the US is the only NATO country with significant dedicated strategic airlift.[127] Britain has leased C-17s and plans to replace some of its 44 C-130s with A400Ms, but has not yet bought a strategic lift aircraft. France plans to buy such aircraft, but the timing, scale, and capacity involved is still far from clear.[128]

Ground Operations: The Lessons of Operation Anaconda

In March 2002, US and friendly Afghan forces initiated Operation Anaconda, the first large ground operation involving significant US forces, with the intention of eliminating Al Qaeda forces that had been massing in a 60-square mile portion of the Shah-I-Kot Valley near the Afghanistan-Pakistan border. The terrain, which is characterized by steep mountains, presented an ideal environment for the Al Qaeda fighters to operate in, providing them with significant cover as well as numerous options for escape.

Military planners were careful to learn from the lessons of Tora Bora. US Special Forces trained the Afghan forces how to successfully advance and seize territory while in battle and instructed them to not advance and retreat during battle as they had done in the past. Additionally, instead of relying heavily on Afghan forces to do a majority of the fighting, as was the case at Tora Bora, the US committed a larger number of troops to the new operation. This number increased further when it became apparent that an increased number of US forces would be required to ensure success. [129]

---

[124] Inside the Air Force, July 12, 2002, p. 1.
[125] The San Diego Union –Tribune, June 24, 2002.
[126] Washington Post, June 24, 2002, p. 13
[127] Defense News, May 6, 2002, p. 34.
[128] Defense News, May 20, 2002, p. 32.
[129] For a particularly good summary of the fighting, see Richard T, Cooper, "The Untold War," Los Angeles Times, March 24, 2002; Cincinnatus, "Operation Anaconda," Solider of Fortune, on-line, www.sofmag.com ; and Bradley Graham, "Bravery and Breakdowns in a Ridgetop Battle, Washington Post, May 24, 2002, p. A1 and "A Wintry

The Battle Plan is Still the First Casualty of War

According to the battle plan, the Afghan troops, led by a group of US Special Forces, were to advance across the valley, forcing the enemy fighters to abandon their positions and head for the valley's eastern ridge where they would be met by additional forces blocking their escape. Those additional Afghan and US forces were positioned at the valley's southern end, sealing off Al Qaeda escape routes in an attempt to prevent a repeat of the outcome at Tora Bora in which US forces prevailed, but a substantial number of Al Qaeda and Taliban fighters escaped.[130]

In developing the battle plan for Anaconda, senior defense officials spent several weeks analyzing data gathered from ISR missions in the region. As events unfolded, however, intelligence shortcomings became apparent. Mission planners did not have a clear idea of how many Al Qaeda and Taliban fighters were located in the valley. As the fighting progressed, initial estimates of "several hundred" fighters were later increased to roughly 1,000.[131] In addition to underestimating the size of the enemy force, mission planners were also unaware of the fighters' exact locations and unsure of whether the dispersed nature of the enemy fighters was planned.[132] Specifically, ISR data failed to reflect the presence of several well-fortified enemy fighters on the eastern ridge of the valley where US forces were to be deployed.[133]

This shortcoming of US ISR capabilities contributed to an unanticipated series of events on the third day of the operation. During the early morning hours of March 4, a US MH-47 Chinook helicopter carrying Special Forces, Navy SEAL SOF, and an Air Force Special Operations combat controller touched down atop Takur Ghar Mountain. US aircraft had previously bombed the ridge, which was located at an altitude of 10,200 feet, and surveillance missions conducted after the bombing runs had failed to reveal any hidden enemy positions. However, upon preparing to disembark from the helicopter, the US SOF were met with heavy enemy fire. In the confusion that followed, the helicopter, despite its now damaged electrical and hydraulic system, began a shaky lift off which caused one of the SEALS to fall down the cargo ramp and out of the aircraft. Under continued fire, the helicopter was forced to leave the crewmember on the ground and touched down a number of miles away. [134]

In the immediate aftermath, a rescue effort to retrieve the lost crewmember was launched. During that mission, several Apache helicopters were disabled and another Chinook helicopter, carrying an Army Ranger extraction force, was brought down by enemy fire, immediately killing four persons. A second group of Army Rangers, burdened with heavy equipment, extra layers of clothing, and inappropriate footwear, was forced to ascend the mountain where it met the surviving Rangers and assaulted enemy positions while waiting several hours to be extracted with the wounded and dead. In all, seven soldiers died in the incident and roughly another eleven were wounded - the highest number of combat deaths to occur in one day since eighteen US soldiers died in operations in Somalia.[135]

These and the other events that transpired during the initial day of Operation Anaconda provide several lessons. In addition to revealing continued shortcomings in US ISR capabilities, they call into question the effectiveness of US airpower in destroying well-entrenched enemy

---

Ordeal at 10,000 Feet," Washington Post, May 25, 2002, p. A1.. Also see Associated Press, March 6, 2002, Washington Post, March 6, 2002, p. 1, March 13, 2002, p. 19, March 14, 2002, p. 1, May 24, 2002, A-1; Asia Pacific Defense Reporter, May 2002, pp.34-36; London Daily Telegraph, March 5, 2002; Los Angeles Times, March 11, 2002.

[130] The Washington Post, May 24, 2002, A-1; Asia Pacific Defense Reporter, May 2002, pp.34-36. London Times, June 18, 2002.

[131] The Boston Globe, March 9, 2002, D-2.

[132] The Washington Post, March 4, 2002, A-1.

[133] The Boston Globe, March 9, 2002, p. D-2.

[134] The Washington Post, May 24, 2002, p. A-1.

[135] The Washington Post, May 24, 2002, p. A-1.

positions. Additionally, the fighting on Takur Ghar further supports current conclusions regarding the difficulties of fighting in an unconventional environment against an opponent who is difficult to locate and target. Throughout the fighting on that day (and throughout the entire operation) US commanders were forced to alter battle plans and ground forces were forced to constantly adapt to a rapidly changing situation in which their equipment was inappropriate or an impediment to their progress.

In terms of scope, Anaconda represented the first time during the fighting in Afghanistan that significant numbers of US ground troops participated in battle. Approximately 500 US regular troops from mountain and airborne divisions and 450 Special Forces participated in the battle. In addition to them, about 200 specially trained troops from Australia, Canada, Denmark, France, Germany, and Norway also participated in the fighting, as did a significant contingent of Afghan troops. The total coalition force numbered approximately 2,000 personnel. The start of the operation was delayed 48 hours due to poor weather conditions in the region, which, while characteristic of the Afghan winter, were not conducive to launching a military operation in mountainous terrain. Weather remained a constraining factor throughout the operation, at points limiting the ability of the US to provide air support for ongoing ground operations. When the operation finally began, the original plans quickly fell apart.[136]

Afghan forces entering the valley and awaiting instructions from the Special Forces team accompanying them were quickly ambushed by Al Qaeda and Taliban fighters, forcing them to withdraw. US commanders responded by inserting, via CH-47 and MH-47 Chinook helicopters, several hundred US Army soldiers.[137] Upon landing, however, these forces came under direct fire from fighters pre-positioned in defensive positions and equipped with small arms, RPGs, and shoulder-fired surface-to-air-missiles.[138] US commanders later admitted that the number of Al Qaeda fighters entrenched in the area and the intensity with which they fought surprised them.[139]

Throughout the early stages of the operation, US planners appear to have underestimated the size and strength of the enemy force that they would be facing. This, in part, can be attributed to their reliance on a small group of local Afghan commanders and informants who may have painted an inaccurate picture of the enemy.[140] However, even the most advanced ISR technology has its limitations, which underscore the importance of developing accurate human intelligence. UAVs and other sensor platforms, while providing detailed imagery of the battlefield, cannot "see" through mountains and under heavy brush to reveal well-hidden enemy positions. By choosing the mountainous valley as the battlefield, Al Qaeda was able to maximize its asymmetric advantage. If the US is to be successful against dispersed forces in future instances, it must develop means of more precisely determining their location so as to avoid accidentally sending soldiers into heavily entrenched enemy positions as was the case during the initial days of Operation Anaconda. [141]

Other lessons emerged during the first day of the battle when helicopter-based firepower was not extremely effective in hitting enemy positions. Five AH-64 Apache gunships were called in to suppress enemy gunfire, but several quickly became damaged and were forced to withdraw. While additional helicopters, including the US Marine Corps Super Cobra, were deployed to provide support and cover for the ground forces, they did not operate at optimal levels due to the extreme elevations at which the battle was occurring. Limitations on the helicopters' abilities to loiter over the combat area and the inability of the helicopters to hover in

[136] Asia Pacific Defense Reporter, May 2002, pp.34-36; Soldier of Fortune, June 2002.
[137] The Washington Times, March 12, 2002, p.3.
[138] The London Telegraph, March 5, 2002.
[139] Asia Pacific Defense Reporter, May 2002, pp.34-36.
[140] Asia Pacific Defense Reporter, May 2002, pp.34-36.
[141] The Boston Globe, March 9, 2002, p. D-2.

relatively stationary positions negatively affected their targeting ability, thereby decreasing the accuracy of the helicopters' fire.[142]

After eighteen hours of fighting, in which one US and three Afghan soldiers were killed and another 40 US soldiers were injured, the contingent of US forces and the remaining Afghan forces withdrew to a point near the town of Gardez.[143] Evaluating the failure of US ground forces to successfully force the Al Qaeda fighters towards the ridge and, during the initial hours of battle, to successfully seal off potential escape routes, commanders reverted back to the pattern of heavy bombings used at Tora Bora. The next phase of Operation Anaconda was largely air based, with B-52 heavy bombers dropping 2,000- and 500-pound bombs on Al Qaeda targets in the valley and along the mountains. Additionally, the US successfully utilized two new 2,000-pound thermobaric bombs, which, when fired into a cave, expel the oxygen and suffocate any hidden fighters. Following this stage of the battle, US ground forces were able to operate effectively, and over the next two weeks successfully located and destroyed enemy positions in the valley. [144]

Though the use of airpower during the initial days of the operation was essential, some observers argue that the need for intense air support revealed serious shortcomings in the capabilities of light ground forces. A recent report analyzing the Army's performance in Afghanistan cites a lack of artillery as a major shortcoming of the operations in Afghanistan. During Operation Anaconda, ground forces did not have the option of using artillery to target and destroy entrenched enemy positions. Army troops had to rely on their own mortars, as well as air support from AH-64 Apache helicopters and combat aircraft, to eliminate the enemy threat. In many cases, it took a direct hit from a 2,000-pound bomb to take out an enemy position. [145]

Additionally, adaptations had to be made to the Apache helicopters. Originally designed to attack Soviet armor at night, the weapons systems were modified to increase their effectiveness at hitting entrenched ground forces. The high altitude of the operation, however, forced Apache pilots to engage in maneuvers that decreased their ability to accurately target ground positions. Unlike aircraft flying at higher altitudes, the Apache's were easily targeted and hit by small arms fire and rocket propelled grenades from Al Qaeda and Taliban fighters. Nevertheless, the Apache helicopters were more effective than fixed-winged aircraft at destroying enemy positions. Following Operation Anaconda, A-10 aircraft were dispatched to the region to further support Apache operations.[147]

The Artillery Versus Airpower Debate

In situations such as Operation Anaconda in which specific coordinates of enemy positions are not known, some Army observers concluded that artillery, including howitzers, would be more effective than airpower at hitting enemy positions. The use of artillery, however, is contingent on the Army's ability to maneuver its current overweight, bulky equipment to a

---

[142] Asia Pacific Defense Reporter, May 2002, pp.34-36.
[143] The London Times, March 4, 2002; Asia Pacific Defense Reporter, May 2002, pp.34-36.
[144] The London Times, March 4, 2002.
[145] Defense News, July 22-28, 2002, p.38; See also "Emerging Lessons, Insights, and Observations: Operation Enduring Freedom" prepared by the Center for Army Lessons Learned, Fort Leavenworth, Kansas; The Washington Post, April 28, 2002, p. 16.
[146] Defense News, July 22-28, 2002, p.38; See also "Emerging Lessons, Insights, and Observations: Operation Enduring Freedom" prepared by the Center for Army Lessons Learned, Fort Leavenworth, Kansas; The Washington Post, April 28, 2002, p. 16.
[147] Defense News, July 22-28, 2002, p.38; See also "Emerging Lessons, Insights, and Observations: Operation Enduring Freedom" prepared by the Center for Army Lessons Learned, Fort Leavenworth, Kansas; The Washington Post, April 28, 2002, p. 16.

location near the battlefield. Given the rugged terrain in and around the Shah-i-Kot Valley, it is questionable how successful the Army would have been in deploying artillery.

Army Chief of Staff, General Eric Shinseki, testified before the Senate Armed Services Committee that he felt artillery, such as the Crusader, would have provided ground forces with necessary "suppressive fires" in significantly less time than it took for aircraft to respond. While it took 25 minutes for aircraft to provide support, Shensiki testified that it would only take the Crusader roughly three minutes to provide support to ground forces in a similar situation. Citing the fact that 28 of 36 casualties during the operation were due to indirect mortar fire, Shensiki said that artillery would have been the most effective method of supporting ground forces.[148]

General Tommy Franks, head of US CENTCOM, however, disagreed with Shinseki's assessment, stating that the notion of transporting and positioning a number of Crusader howitzers for use during Operation Anaconda was "mind boggling." Franks, testifying before the Senate defense appropriations subcommittee, stated that several factors, including lift-availability, the altitude at which the battle was occurring, and the munition trajectory characteristics of a weapon, must be considered when determining whether or not to deploy artillery. Based on these factors, Franks concluded that mortars were a more appropriate weapon for use during Operation Anaconda.[149]

At least one officer in the 101st Airborne Division's 3rd Brigade was ambiguous in commenting on the issue. He noted that lift and basing requirements prevented the unit from bringing its eighteen M-109 (155mm) howitzers into the theater, as well as some of its UH-60 helicopters. He also noted that light, 105mm towed howitzers weigh only 4,400 pounds and expressed his opinion that moving them to the battlefield would not have delayed or complicated operations. Additionally, he noted that artillery weapons have to be secured and require support and that 120mm mortars are more mobile. He also noted that such mortars have an effective range of 7,200 meters (or about half that of the 105mm howitzer) and must be moved, supported, and resupplied much further forward, often under much more difficult resupply and force protection conditions.[150] It is interesting to note that the 82nd Airborne Division did bring its artillery to the theater when it replaced the 101st.

The debate between Shinseki and Franks represents the larger debate over the practical uses of artillery in non-conventional settings. While having the Crusader or another howitzer present during Operation Anaconda would have been of assistance to ground forces, it is unlikely that the Army would have been able to transport it there. Even in the most ideal weather conditions – and the initial days of Operation Anaconda saw some of the worst winter weather that Afghanistan offers -- it would have taken several days to transport such heavy equipment to such a high altitude. If one of the lessons of Operation Anaconda is the need for artillery support even in rugged battle environments, then a complimentary lesson is the need for lighter, more agile equipment that makes the use of such artillery possible. Indeed, the demands placed on the Army during Operation Anaconda provide additional evidence in support of the Army transformation effort already underway.[151]

Equally important is the fact that, in the real world, hard trade-offs have to be made for resource reasons. The Crusader was designed at a time where unguided artillery rounds would dominate artillery fire. The US has at least five guided, 155mm artillery shells under development, and some, such as Excalibur and the Trajectory Correctable Munition, have a

---

[148] The Washington Post, June 3, 2002, p. 13.
[149] Bloomberg News Service, May 21, 2002. Also see Army Times, March 6, 2002.
[150] Army Times, May 20, 2002, p. 9,
[151] Defense News, July 22-28, 2002, p.38; See also "Emerging Lessons, Insights, and Observations: Operation Enduring Freedom" prepared by the Center for Army Lessons Learned, Fort Leavenworth, Kansas; Bloomberg News Service, May 21, 2002.

range in excess of 30 miles.[152] It is far too soon to know whether a combination of light artillery weapons, tactical ISR assets, and guided artillery rounds can provide a far more cost-effective solution than traditional upgrades to heavy artillery platforms. It also, however, seems dangerous to rush into the procurement of extremely costly and heavy legacy systems.

The Weightlifting Contest

Under the current Army transformation plans, some of the equipment problems that US troops encountered may be resolved as early as 2008. The Army is currently developing the Objective Force Warrior with the goal of decreasing by half the weight of the equipment that soldiers carry. Like many elements of the Army's future Objective Force, the Objective Force Warrior is highly dependent on the development of new technologies, including a uniform equipped with a micro-climate conditioning system which will allow soldiers to operate comfortably in both hot and cold environments similar to the environmental extremes encountered by soldiers during Operation Anaconda. In addition to protecting soldiers from weather conditions, the uniform would be designed to protect troops from the effects of chemical or biological weapons.[153]

During Operation Anaconda, ground forces often became overburdened by the weight and amount of weaponry that they were carrying. Soldiers report that in order to move more quickly they were forced to discard some of their equipment. In one instance, several Special Forces troops scaling the side of a mountain were forced to discard their body armor because it significantly inhibited their ability to ascend the steep mountainside. Based on these common experiences and difficulties, it will be essential for the Army to re-examine basic equipment and weapon characteristics. Ground forces in fighting situations like Anaconda face several challenges and require an effective means of defending themselves and attacking the enemy. Their equipment should not become an impediment to their survival or achievement of the main objectives of the mission.

Only 76 of the approximately 2,000 US soldiers who participated in Operation Anaconda were wounded.[154] According to the commander of the 274th Forward Surgical Team (Airborne), many of those wounds were located in soldiers' extremities and there were not as many serious wounds as he had anticipated.[155] Much credit for that is being given to the Interceptor body armor worn by US soldiers. It is an upgrade from the flak jackets previously worn by US soldiers both in terms of protective ability and weight. The Interceptor vest contains Kevlar, a lightweight fiber that is twenty times stronger than steel, and can be fitted with front and back boron carbide shields that are similar in hardness to diamonds and are capable of stopping a rifle round.[156] Testimonials from US soldiers who have served in Afghanistan confirm that Interceptors can indeed protect their wearers from enemy bullets. An Interceptor vest equipped with supplemental front and back protective shields weighs sixteen pounds (basic vest weighs eight pounds and each of the shields weighs four pounds) - nine pounds lighter than the previously used flak jackets.[157] The equipment, however, has not been entirely above question. An Army report issued in April 2002 says that there were some problems with the Interceptor in regard to sizing and wearer comfort.[158] It also noted that one US soldier was killed when a round passed through his side between the front and rear shield areas, but did not elaborate on whether sizing was an issue in that incident.[159] Additionally, the New York City police have

[152] Defense News, June 17, 2002, p. 1.
[153] Defense News, July 15-21, 2002, p. 40.
[154] Army Times, April 22, 2002.
[155] Army Times, April 22, 2002.
[156] Newsday, August 19, 2002.
[157] Time, April 1, 2002.
[158] Defense Week, September 30, 2002.
[159] Defense Week, September 30, 2002.

discovered serious deficiencies in stopping power in some of body armor it purchased from the same company that makes the Interceptor. Finally, some disgruntled employees at the company have alleged that their company has essentially defrauded some customers by changing size labels in order to fill orders and by using inferior recycled materials in the production of its products.[160]

As part of the development of the Objective Force Warrior, weapons made out of ultra-light materials would replace the M-16A2 rifle, M-4 carbine, and M-249 Squad Automatic Weapon. The new generation of weapons, while having similar capabilities, is being designed to weigh roughly 35% less than the current set of weapons. Also being developed as part of the Objective Force Warrior are alternative energy technologies, such as light-weight fuel cells, that will power high-tech sensors and replace heavy batteries which currently weigh down soldiers. The new sensors will monitor the battlefield environment as well as the physical health of the troops in the field, allowing medics outside of the battlefield to provide advice regarding troop readiness and injuries. A final component of the new uniform is development of a camouflage technology that can adapt to the environment in which the troops are operating so as to maximize their concealment.[161]

A major additional component of the Objective Future Warrior program is the development of a robotic ATV that will follow troops and carry roughly 500 pounds of equipment. While this may be practical in a more traditional battlefield setting, it is questionable whether such a vehicle would be of use to ground forces engaging an enemy in mountainous terrain which is difficult for humans, let alone robotic vehicles, to manage.[162]

The Unsealed(able?) Trap

Despite several initial problems, ground forces were more effective during the remainder of the operation. Relying on thermal imagers, Predator aircraft, and satellite data to locate enemy positions, troops would locate the enemy, relay targets, and call in helicopter or fixed-wing air support to strike the enemy. Afghan and American forces additionally moved to seal off possible escape routes for enemy fighters. There are questions as to how effective this effort was. Military officials report that in contrast to Tora Bora, where the enemy fled, many Al Qaeda and Taliban forces remained in their positions. Officials, however, are unable to provide specific data as to how many enemy fighters were killed. Additionally, it was difficult to find evidence in support of this notion, leading some to conclude that the enemy once again eluded defeat by quietly withdrawing from the battlefield.[163]

Sealing off all possible escape routes from a mountainous environment is a near impossible task and requires a large contingent of ground forces. Additionally, it is difficult for military planners to decide where to deploy a containment force. A larger battlefield requires a large containment force, and no matter how large that force may be, it may not be able to overcome the natural advantages which mountainous terrain lends to an elusive enemy.

Beyond these lessons, Operation Anaconda and other more limited ground operations also have revealed a need for improvements in intra-theater airlift capabilities. Specifically, the Army needs to increase its ability to transport aviation forces, such as AH-64 Apache helicopters and UH-60 Black Hawk utility helicopters, within the region. A new transport must be able to fly at higher altitudes for longer time periods and must be able to land in makeshift environments. Army officials support developing a tilt-rotor aircraft called the Advanced Maneuver Transport, which can carry both troops and equipment at high speeds, possibly

---

[160] PR Newswire, September 12, 2002.
[161] Defense News, July 15-21, 2002, p. 40.
[162] Defense News, July 15-21, 2002, p. 40.
[163] The Washington Post, March 10, 2002, p. A-26.

landing them behind enemy lines. During the campaign in Afghanistan, helicopters have flown an average of 600 hours per week.[164]

Other broad lessons drawn from the Army's performance during Operation Anaconda and the rest of the war, were made by Army Secretary Thomas White. Evaluating the campaign in Afghanistan, he argued that the fighting situations encountered indicate that the service is headed in the correct direction when it comes to transformation. Specifically, White indicated that the fighting in Afghanistan has shown the versatility of the Army and the need for a balanced force structure. He also cited joint operations between the Army and other services as being a key to decisive victories. From White's perspective, the fighting in Afghanistan has proven that joint operations can be extremely successful.[165]

Communications, Bandwidth, and Satellite Capacity Lessons

While the mountainous terrain of the Shah-i-Kot region posed numerous physical challenges for US forces to overcome, the environment also revealed several problems with communications. Soldiers could not rely on line-of-sight communications equipment and had to turn to more expensive and less available military and commercial satellite communications. At the same time, this battle and other experiences in Afghanistan showed that critical aspects of the US national security communications system – such as the Defense Satellite Communications System (DSCS), Milstar, UHF follow-ons, NRO relays, and the NASA TDRSS spacecraft -- are still "stovepiped and lack proper integration. This seems to be true of the designs for the new Advanced EHF and Wideband Gapfiller programs.[166]

This has led to a coordinated effort under the National Security Space Architecture Office by seven teams from each of the key agencies, including the NRO and NSA. Improving this aspect of force transformation has been given high priority and new programs could start being funded in 2003. The program will be evolutionary and emphasize field use and access across a wide range of channels, as well as the integration of the transmission of secure data from NASA, NRO, NSA, and the Defense Department. At present, US forces often have to use two to four different terminals to talk to two to four different satellites in a situation in which a single laptop could do the same job. Also, key new technologies like Lasercom are also just coming into service and there are no UAV links to the DSCS and Milstar systems. Milstar II is coming into service and will ease some problems, but will scarcely be a substitute for an integrated systems architecture. Current systems are also particularly weak in rapidly transmitting encrypted imagery. [167]

This situation was made worse by a much broader problem in satellite bandwidth capacity. The US military had anticipated a far faster growth in commercial satellite capacity than that which ended up taking place (some 275 satellite launches actually occurred instead of the 675 the military had planned on). As a result, the Afghan conflict became the first practical case where a lack of bandwidth began to inhibit US communications and ISR capabilities. The US military calculates a future need for a total of some 16 gigabits per second in a major theater war by 2010 – some 208,000 simultaneous phone calls. Actual military capacity could be little more than half that, thus resulting in much higher reliance on commercial communications satellite capacity that may not be available. [168]

---

[164] Defense News, May 13, 2002.
[165] Defense Week, December 17, 2002, p. 2.
[166] For excellent reporting on this issues seem Carig Covault, "US Military Wants Sweeping Satcom Changes," Aviation Week and Space Technology, January 21, 2002, p. 27.
[167] For excellent reporting on this issues seem Carig Covault, "US Military Wants Sweeping Satcom Changes," Aviation Week and Space Technology, January 21, 2002, p. 27.
[168] Wall Street Journal, April 10, 2002.

Joint and Remote Command Lessons

In some instances, a complicated command structure that was dispersed over a wide area with key links back in the US added to communications problems. USCENTCOM did not decide to create a joint task force headquarters until May 2002, when one was created at Bagram.[169] In fact, a number of reports - including an analysis of the course of the war by the Marine Corps - seem to have concluded that USCENTCOM's headquarters in Tampa, Florida, some 7,000 miles away, was too far away to coordinate operations in Afghanistan.[170] (In February, the top Marine general commanding operations in Afghanistan had moved closer to the theater, from Hawaii to Bahrain.)[171]

While Operation Anaconda was a joint operation, Special Forces from each service were not under joint command. Information relayed from one group of forces to a commander sometimes did not get relayed back out into the field to another group of forces. Overall, however, observers believe that the type of mission conducted by forces in Operation Anaconda indicates the need for higher-bandwidth and more closely linked communication systems, which will provide ground forces with up-to-date information on enemy and friendly positions. Additionally, analysts urge the Army to upgrade its "common operational picture," which currently provides commanders UAV imagery of ongoing operations. The key to using such technology effectively does not lie simply in mainstreaming the collection process, but also in training officers to rapidly analyze it and adapt their mission plans as needed.[172]

In evaluating the intelligence operation that assisted the military in planning and executing Operation Anaconda, US military officers argued that despite some inaccuracies, human intelligence played a pivotal role in the success of the mission. Lt. Colonel Dave Gray, chief of operations for Operation Anaconda, noted the importance of combining human intelligence with other technical sources. He said that human intelligence was used to confirm observations from surveillance aircraft. Additionally, noting the surprisingly fierce resistance that US forces faced during the first days of Anaconda, Gray argued that limitations in technical intelligence gathering create a continued need for accurate human intelligence, both before and during a battle.[173]

Media Management and Coordination Issues

The initial problems encountered by US forces at the start of Operation Anaconda presented media management problems for the DoD. Information coming both from the battlefield and briefings was often sketchy, constantly changing, and, at times, inaccurate. Reporters were not permitted to move close to the fighting, creating a situation where the media became dependent on second-hand accounts of the battle as it unfolded.

Additionally, military officials and commanders did not properly explain and educate the media as to the rationale behind rotating troops in and out of combat. While many reporters interpreted troop rotations as a sign of military weakness, the rotations were in reality related to the challenges of conducting military operations at such a high altitude. Unnamed military officers who complained of the inadequate use of airpower ignored the economical and tactical realities and capabilities of precision-guided munitions. While inaccurate and confused reports in the media did not derail the mission, they did create further problems for the DoD and military commanders at a time when they had more pressing issues to worry about. Therefore, managing

---

[169] Washington Post, May 22, 2002, p. 26.
[170] Wahsingtonpost.com, June 3, 2002, P. A-l.
[171] New York Times, February 4, 2002.
[172] Defense News, July 22-28, 2002, p.38; See also "Emerging Lessons, Insights, and Observations: Operation Enduring Freedom" prepared by the Center for Army Lessons Learned, Fort Leavenworth, Kansas.
[173] Defense Week, April 1, 2002, p. 8.

a clear and accurate flow of information to the media remains an important element of any military operation.[174]

The Changing Nature of Joint Warfare and the Combined Arms Mix

Virtually every major recent war has shown the growing value of joint operations and of integrating land-air-sea operations in ways adapted to the needs of a given conflict. Like Kosovo, however, the Afghan conflict has shown that a combination of precision air and missile strike capability, coupled with greatly improved intelligence and targeting systems, can, in some contingencies, provide much of the heavy firepower that previously had to be provided by artillery and armor.

Part of the shift towards precision is indicated by the fact that some 6,700, of the 12,000 air weapons the US dropped by December 7, 2001, or 56% of the total, were precision-guided. Later estimates indicate that roughly 10,000 weapons were precision weapons, out of a total of 18,000 dropped by early February, or still 56%. This compares with 35% of the 24,000 weapons dropped during the Kosovo campaign in 1999.[175] As of June 2002, the percentage of precision-guided weapons used increased to roughly 60% of total munitions, and military officials estimated their accuracy to be roughly 90%.[176] It is also worth noting that the ability to correct the dispersal of unguided submunitions for wind and greatly improved navigation and targeting capabilities also made the delivery of unguided weapons far more precise than it had been in the past.

It is dangerous to over-generalize, however, since much depended in both wars on near air supremacy and the ability to engage enemy ground forces in ways that allowed them to make only limited or no use of their armor or artillery against US and allied forces – aside from targeting local allies and proxies. Nevertheless, the nature of the air-land battle seems to have evolved significantly, even in terms of the standards of a comparatively recent conflict like Kosovo.[177]

Yet, if the opponent had had more serious military capabilities, US and British land forces would have had to spend several weeks winning air superiority and carrying out the suppression of enemy air defense (SEAD) mission. They could also have added more attack helicopters and gunships to the battle, and possibly lighter and more mobile artillery and armor – although this presented equipment, lift, and mobility problems for both the Army and Marine Corps. (The Army lacks sufficient light armored vehicles (LAVs) and even all terrain vehicles (ATVs) for its Special Forces, and Marine Corps light mechanized forces are still too tied to amphibious operations and need better ability to project force via airlift.).

The US and Britain could also have added more highly trained special forces elements, forward air controllers, and experts with local language and cultural skills. Such forces obviously cannot substitute for heavy ground forces in many contingencies, but it is important to note that the Afghan war, per se, is not an argument for lighter tanks and artillery, nor for lighter and more projectable mechanized ground forces. This poses an obvious challenge in restructuring the Marine Corps for operations in the Middle East, and possibly challenges the relative roles of the Marine Corps and the Army.

---

[174] Asia Pacific Defense Reporter, May 2002, pp.34-36.

[175] General Tommy Franks testimony to the Senate Armed Services on February 5, 2002. http://www.centcom.mil/news/transcripts/General%20Franks%20Testimony%205Feb02.htm; Bryan Bender, Kim Burger, and Andrew Koch, Afghanistan: First Lessons, Jane's Defense Weekly, December 19, 2001, p. 20; New York Times, February 8, 2002, p. A-14, and Philadelphia Inquirer, February 12, 2002, p. 1.

[176] The New York Times, June 25, 2002.

[177] For a more detailed assessment of these points and why the air environment in Afghanistan may not be relevant to fighting against countries like Iran, Iraq, and North Korea, see the presentation of General Hal Hornburg, commander of the Air Combat Command, and General Gregory Martin, commander of USAFE, before the Air Force Association Conference in Orlando Florida, as reported in Bloomburg.com, February 20, 2002.

Key to any joint operation is an advanced communication network, capable of transmitting data between unmanned and manned sensor aircraft, ground forces, combat aircraft, and commanders. The fighting in Afghanistan marks a step forward in the development of such a seamless communications system. However, it is important to note that the enemy in Afghanistan did not have the technological capabilities to interfere with and disable that system. Indeed, while the fighting in Afghanistan shows us that a communications network that integrates information from many different forces is feasible in a non-hostile environment, it has not proven whether such a communications network can withstand an electronic or physical assault from a more advanced foe.[178]

The Value of Strike Range in Power Projection

Aircraft range is of limited importance when forward bases are available, but the US could not initially deploy combat aircraft into bases in Central Asia and Pakistan, and had no bases available in Pakistan. The US did acquire such capabilities over time, and was able to build up major facilities in the forward area at Bagram Air Base in Afghanistan, "Ganci" Air Base near the Manas Airport in Kyrgyzstan, and in Pakistan.[179] This lack of forward basing initially limited US attack helicopter operations and meant that shorter-range aircraft like the A-10 and AV-8 were only committed after the fall of Kabul. It was a key factor that forced F-18s, F-14s, and other fighters to fly extremely long missions from carriers in the Indian Ocean and a heavy reliance on refueling as well as long-range bombers.

The fact that the US could deploy so many fighters at such long distances early in the war and refuel and maintain them over time is a considerable achievement. It is not, however, a substitute for aircraft range, and the conditions in Afghanistan showed that the ability to loiter over a target area can be equally important.

The range of many US fighters and strike fighters is, however, marginal for such missions. It could also be a problem in other areas where access to adequate basing is uncertain, like the Persian Gulf. In some ways, US air power is still too divided into fighters, which are best suited for European and littoral operations, and long-range bombers. Afghanistan is a warning that the range and endurance of the US strike fighter fleet may be inadequate, and that the US may have left a "range gap" between strike fighter and bomber.

The conflict in Afghanistan also provided another lesson in the vital importance of mid-air refueling operations and US tanker forces. However, of the USAF's fleet of 545 KC-135 refueling aircraft, 130 were grounded as of April 2002 due to structural problems and other maintenance issues. This has led to a debate over the need to replace the aircraft even though most should still have substantial flying life. The USAF is currently examining the possibility of leasing up to 100 modified Boeing 767 aircraft to decrease the demands on refueling tankers, however, a long-term solution that reduces overall dependence on USAF refueling assets has yet to be developed. Such a solution will be necessary to ensure future US power projection capabilities, especially in conflicts where the battlefield is located far from US aircraft bases.[180]

While the stealth characteristics of the B-2 only had marginal value in this war, Afghanistan is also a warning that long-range stealth capabilities may be far more critical in the future. Enemies with advanced air defense systems are not going to let conventional fighters loiter over the battlefield or refuel. In order to refuel, F/A-18s and F-14s were forced to descend to 17,000 feet. After refueling and returning to their previous altitude, however, the aircraft had utilized almost as much fuel as had just been added to their tanks. The US may also find that not all countries will be as cooperative as Pakistan and the nations of Central Asia have been and

[178] Norfolk Virginian-Pilot, July 12, 2002.
[179] USA Today, April 30, 2002; Jane's Defense Weekly, December 5, 2001, p. 3, Los Angeles Times, December 11, 201; Time.com, April 27, 2002.
[180] Defense Daily, March 25, 2002, p. 48, July 3, 2002, p. 1; Wall Street Journal, May 3, 2002.

that long-range stealth capability may be necessary to allow US air power to "intrude" through the air space of third party countries.[181]

At the same time, both the US and Britain have drawn the lesson from Afghanistan that permissive air environments, new sensor and targeting systems, and long-range precision strike systems allow older, long-range slow fliers, like the P-3 and British Nimrod, to be armed and used as delivery platforms, and could even allow tankers and transport aircraft to be reconfigured for use in strike roles. The P-3, for example, was designed for maritime surveillance and anti-submarine warfare missions, but was used as a land-based observation plane by the SEALs. The P-3 possessed data links to the Predator and E-8 and provided real time reconnaissance during Operation Anaconda and the fighting in the Shah-i-Kot Valley.[182]

Older aircraft can also be modified to assist in ISR activities, as has been evidenced by the US Navy's use of P-3 Orion maritime patrol aircraft in support of Special Operations Forces on the ground in Afghanistan. Taking advantage of the upgrades in communications, radar, and sensor capabilities made to aircraft as part of the P-3 Anti-Surface Warfare Improvement Program (AIP), the Navy used P-3s to gather ISR information, which was then transmitted directly to the Special Operations Forces on the ground. Not only could SEAL teams download information from the P-3, but they could also upload target information and coordinates to the P-3, which in turn would transmit the information to strike aircraft.[183]

The USAF modified existing aircraft to enhance ISR by placing communications pallets onboard KC-135 tanker aircraft. These modified aircraft communicated with the CAOC in Saudi Arabia and relayed battlefield information to F-15 aircraft. According to Air Force Secretary, Dr. James G. Roche, the "smart tanker" worked incredibly well; consequently, the USAF plans on modifying 40 of its current KC-135s so that they can enhance battlefield communications further.[184]

Common Base Operations

One area that clearly needs review is the lack of effective US planning for common Base Operations Support (BOS) in joint doctrine and procedures. Some analysts feel the integration of conventional land forces and special operations forces (SOF) at the support level at austere bases was not a pretty story and helped lead to a surprisingly slow build-up of SOF teams in Afghanistan. This will probably surprise many people, given what was accomplished.

There seems to be good reason to question whether each service or service component should rely as much on having its own base support as is the case today. The US also needs to carefully examine the tendency to "gold plate" the basing capabilities for some combat and support elements, while leaving others austere, and the tendency to use different levels of force protection for different services and components. Specialization is one thing, duplication is another, and joint-basing may offer significant savings as well as increase the speed of power projection.

The Value of Coalition Warfare and Mission-Oriented Interoperability

Recent wars have repeatedly demonstrated the value of coalition warfare in every aspect of operations from power projection to combat. The Afghan conflict, however, is interesting because light, highly trained allied forces, like the SAS, could be highly effective without expensive high technology equipment, standardization, and interoperability. Similarly, relatively primitive allied local ground forces could be very effective substitutes for US ground forces when given the support of US Special Forces and advisors and effective air and missile strike

[181] Defense Daily, July 3, 2002, p.1; Aviation and Space Technology, April 29, 2002, p. 55.
[182] Jane's Defense Weekly. January 16, 2002, p. 3; Washington Times, April 2, 2002, p. 5.
[183] Defense Daily, July 9, 2002, p. 3.
[184] Air Force News, May 29, 2002.

capability. This is a lesson that emerged in a different way from the role that the KLA and other Kosovar forces played in Kosovo.

Rethinking the Emphasis on High Cost Forces and Force Improvements

Once again, there are clear limits to this lesson. However, the US and British experience in Afghanistan may indicate that the US and NATO have overstressed the high technology and high investment aspects of coalition warfare and interoperability, and paid too little attention to the value of being able to draw on a pool of highly trained, lighter forces, like the SAS, or their Australian, Canadian, German, and other equivalents. The same may be true of the value of using limited numbers of highly trained advisors, forward air controllers, and targeters on the ground, along with rapid transfers of low and medium technology arms to strengthen local forces. It seems fair to say that, in the past, the US has paid more attention to seeking technological clones or doing it alone than to using its specialized, high technology strengths in ways which make it easier to operate with less-well-equipped Western and regional allied forces. This may well have been too narrow, if not the wrong, approach to coalition warfare and interoperability in many mission areas.

The Growing Role of Allied Coalition Forces

A list of allied forces supporting the US as of June 2002 illustrates both the flexibility that coalition operations can provide as well as the political and military value of what are often small contributions. [185] Please note that some countries may be providing support for the war in Afghanistan that they are keeping confidential, therefore, this list should not be interpreted as being comprehensive.

Australia

- Australian Special Operations Forces (SOF) are currently in Afghanistan performing the full spectrum of SOF missions. A second rotation of these forces has recently occurred and demonstrates Australia's ongoing support of operations in Afghanistan.
- Australia has deployed two dedicated KB-707 aircraft to Manas, Kyrgyzstan. The deployment also includes a significant number of support personnel.
- The Royal Australian Air Force is filling a key, wing leadership position (Operations Group Commander) at Manas.
- Fighter aircraft are deployed to perform Combat Air Patrol (CAP) missions at Diego Garcia in support of Pacific Command. That highlights Australia's broader commitment to the war on terror and the significant relationship Australia and the U.S. share across a number of Areas of Responsibility (AORs).
- Australia has deployed three ships to the Central Command (CENTCOM) AOR that support naval operations. They are HMAS Manoora, HMAS Canberra, and HMAS Newcastle. They are conducting Maritime Interception Operations (MIO) in the Arabian Gulf and enforcing UN sanctions against Iraq.
- The National Command Element is forward-deployed in the region, providing command and control for deployed forces.
- Australia suffered the first non-U.S. military fatality on February 16, 2002 -- Sgt. Andrew Russell was killed in action as the result of a land mine explosion. Previously, another member of Australia's Special Forces lost his foot in another land mine incident. He is recovering in Australia.

Belgium

- Belgium is providing one officer to the Coalition Intelligence Center (CIC) at CENTCOM and one officer to the Regional Air Movement Control Center (RAMCC) to serve as deputy chief of operations.

[185] This list is provided by USCENTCOM. Also see Jane's Defense Weekly, March 13, 2002, p 4 and 21.

- Belgian Air Force C-130 aircraft delivered a high protein food supplement (UNIMIX) from Denmark to Dushanbe, Tajikistan and an A-310 (Airbus) delivered 250,000 vaccinations for children under the United Nations Children's Fund (UNICEF) program.
- Belgium led the largest multinational Humanitarian Assistance (HA) mission, which included Belgium, Spain, Netherlands and Norway. This mission provided 90 metric tons of UNIMIX to feed starving children in Afghanistan and set the standard for follow-on HA operations.
- Belgium contributed four people to Operation Noble Eagle supporting U.S. homeland security efforts. These Belgians are at Tinker AFB.
- In contribution to the International Security Assistance Force (ISAF), a Belgian C-130 with aircrew and maintenance crew (25 people) arrived in Karachi on April 10, 2002. They will stay in Karachi and execute part of the 400 dedicated C-130 flight hours for ISAF. The crew and aircraft are working on a one-month rotation schedule.

Bulgaria

- Will provide basing and over-flight rights upon request – standard clearance authority for over-flights.
- Provided basing for six KC-135 aircraft to support humanitarian flights into Afghanistan during November and December 2001.
- Provided 40-person Nuclear, Biological, Chemical (NBC) decontamination unit to support ISAF in Kabul.

Canada

- Contributed the first coalition Task Group to arrive in CENTCOM AOR.
- Canada currently has 2,025 personnel in the CENTCOM AOR (1,100 land, 225 air and 700 naval personnel). To date, 3,400 personnel have deployed in support of Operation Enduring Freedom.
- The Canadian Naval Task Group has been engaged in Maritime Interception Operations, Leadership Interdiction Operations (LIO), escort duties and general maritime surveillance between the northern Persian Gulf and the northern Arabian Sea. Seven ships deployed to the region from October 2001 to April 2002.
- Canadian Air Force CC-150 Polaris (Airbus) and three CC-130 (Hercules) aircraft have conducted strategic and tactical airlift. They have moved more than 7.8 million pounds of freight to date.
- Two CP-140 Aurora (P3C) aircraft are employed in MIO/LIO as part of Carrier Task Force 57.
- Eighty-four missions and 746 flight hours have been logged to date. Organic helicopter assets have flown 930 missions for more than 2,900 hours.
- Special operations forces are currently in Afghanistan performing the full spectrum of missions.
- HMCS TORONTO, while operating in the northern Arabian Sea, intercepted a small vessel laden with 4,500 pounds of hashish (valued at more than $60 million). Its crew abandoned the vessel during the interception. The cargo and vessel were subsequently destroyed.
- Princess Patricia's Canadian Light Infantry Battle Group has deployed as part of TF Rakkasan with 828 personnel and twelve COYOTE armored reconnaissance vehicles. These forces have been deployed to Kandahar for security and combat operations. Their successes to date:
    - They led Operation Harpoon from March 13-16, 2002. Investigated 30 caves and four mortar positions. Action resulted in three enemies KIA.
    - They conducted patrol on March 18, 2002 in the Kandahar region that uncovered a cache of weapons (including three thermobaric launchers).
    - They are continuing to conduct Civil Military Cooperation (CIMIC) efforts in the Kandahar area.
    - They provided the Quick Reaction Force that deployed from Kandahar to secure the site of the Apache helicopter that crashed on April 10, 2002.

Czech Republic

- Country representatives arrived at CENTCOM on Nov. 9, 2001. Currently, there are three personnel at CENTCOM.
- There are 251 personnel deployed to Camp Doha, Kuwait to perform local training as well as AOR-wide Consequence Management (CM) support.
- Offered to donate 1,000 military uniforms to support the Afghan National Army (ANA).

Denmark

- The Danish Air Force is providing one C-130 aircraft with 77 crew and support personnel.
- Additionally, the Danish Air Force will deploy four F-16 aircraft in an air-to-ground role with pilots and support personnel in October. These assets are on standby in Denmark.
- Approximately 100 special operation forces personnel have deployed to the AOR as part of a multinational unit under U.S. command. Due to rotation of forces, the number at present is approximately 65.
- Denmark suffered three killed and three wounded in action supporting ISAF operations.

Egypt

- Egypt has provided over-flight permission for all U.S. and coalition forces.
- Country representatives arrived at CENTCOM on Nov. 28, 2001. There are currently three personnel at CENTCOM.

Estonia

- Approved unconditional over-flight and landing rights for all U.S. and coalition partners.
- Offered two explosive detection dog teams for airbase operations.
- Offered 10 cargo handlers as part of Danish contingent deployed to Manas, Kyrgyzstan.

Finland

- The Finnish Military Liaison team at CENTCOM continues to concentrate especially on civil-military operations with an objective to facilitate cooperation and coordination between ISAF, OEF and UN operations in Afghanistan.
- Finland is currently assisting the Afghan administration, non-governmental humanitarian organizations and military forces in Afghanistan in an effort to promote the long-term reconstruction of the country.
- Finland is providing the largest Civil-Military Cooperation (CIMIC) unit in Kabul in support of ISAF. This unit currently consists of nearly 50 officers.

France

- The French Air Force deployed C-160 and C-130 aircraft to Dushanbe, Tajikistan, and have provided humanitarian assistance as well as national and coalition airlift support.
- Two KC-135 aircraft have deployed to Manas, Kyrgyzstan to provide aerial refueling.
- Six Mirage 2000 fighter aircraft have also deployed to Manas to provide close air support (CAS) capability.
- French engineers helped construct runways, a tent city and a munitions storage facility at Manas.
- France also provided airfield security (with dogs), a field mess unit, a deployable weather bureau, and a Civil Military Operations (CMO) team.
- France deployed an infantry company to Mazar-e-Sharif to provide area security until December 2001.
- Two French officers are currently serving as an air coordinator at the Regional Air Movement Control Center.
- Atlantique aircraft deployed in Djibouti under national control and are participating daily in Intelligence, Surveillance and Reconnaissance (ISR) missions.

- France is providing its only carrier battle group to support combat operations in the northern Arabian Sea. Aircraft from this battle group have flown more than 2,000 hours for OEF to date, supporting the coalition with air reconnaissance, strike and AEW missions. France's naval contribution to OEF accounts for approximately 24 percent of their entire naval forces.
- France is the only coalition country to be flying fighter aircraft from Manas airfield in Kyrgyzstan.
- French Mirage and tanker aircraft actively supported the coalition during Operation Anaconda in March and are maintaining their full combat and support capabilities for further operations.
- Kabul Medical Institute: The World Health Organization, French Embassy, Loma Linda (NGO) and French forces (500 personnel) inserted into ISAF are working to make major improvements to the Kabul Medical Institute - with equipment, books and a new curriculum. The student body of about 2,800 includes 544 women.

Germany

- There are 2,560 German personnel currently operating within the CENTCOM AOR.
- German special operations forces are currently in Afghanistan performing the full spectrum of SOF missions.
- The German Navy has had three frigates, one Fast Patrol Boat Group (five units) and four supply ships operating out of Djibouti, in the Gulf of Aden area, since Jan. 2002. Additionally, there are two German Sea King helicopters based in Djibouti.
- A German A-310 (Airbus) aircraft is on alert in Germany for use as a medivac platform.
- Germany has one battalion-sized Infantry Task Force operating in Kabul, Afghanistan, as part of ISAF operations. This force is supported by an air transport element operating out of Uzbekistan.
- USAID and CJCMOTF are working on a plan to employ Afghan war widows to make uniforms for the Kabul police force - a micro-industry proposal made possible by a German contribution of 10 million Euros to help train and equip the police force.
- This is the first time German ships and maritime patrol aircraft have been operationally involved in a Middle East deployment in more than 50 years. Three German maritime patrol aircraft began conducting reconnaissance operations from Mombassa, Kenya. Germany conducted HA flights to support relief efforts for earthquake victims in Afghanistan.

Greece

- Greek Frigate Psara has been in CENTCOM's AOR since March 15th, conducting operations under the operational control of Coalition Forces Maritime Component Commander (CFMCC). This frigate is of Meko type and is one of the most sophisticated vessels in Greece's inventory. It is manned with a crew of 189 and carries one S-70 BA Aegean Hawk helicopter and one Special Forces team. It has the ability to perform and execute a large variety of missions. It will be replaced in three months by another frigate of the same type, so there will be constant Greek naval presence in the area of interest.
- The facilities of the Greek Naval Base and Airbase of Souda, Crete, are used as forward logistic sites to support ships and aircraft moving in the area, as well as other basing settlements across the country.
- One Air Force officer is going to be assigned as an operations officer of the RAMCC and one Navy liaison officer will deploy to Bahrain.
- Greece is very active in ISAF operations.
- One Greek Engineer Company of 123 persons and 64 engineering vehicles has been operating in Kabul.
- Two C-130 transport aircraft with a support security team of 56 personnel have deployed to Karachi, Pakistan, for tactical airlift in support of ISAF operations.
- Greek staff officers have been assigned to Permanent Joint Headquarters (PJHQ) in Great Britain and to ISAF HQ in Kabul.
- In the eastern Mediterranean Sea, Greece is providing one frigate and a counter-mine ship that have been conducting surveillance and mine sweeping operations in support of NATO operations. Additionally, Greece has offered two more vessels and a number of aircraft sorties in support of Operation Active Endeavor.

India

- Provided frigate for escorting coalition shipping through the Straits of Malacca.
- Made shipyards available for coalition ship repairs.
- Opened ports for naval port calls.

Italy

- The Italian Air Force is planning to deploy one C-130 plus one Boeing 707 to Manas airfield following initial force rotation.
- Deployed a 43-person engineering team to Bagram to repair the runway. Repairs will take place on May 10-22.
- Italian personnel are committed to both OEF and ISAF operations. A 400-person regimental task force was deployed on Jan. 15, 2002 in order to provide area and site security for Kabul.
- Italy is providing three C-130s (two operating from Abu Dhabi) and leasing one B-707, one AN-124, and one IL-76 in support of ISAF.
- Italy provided its only Carrier Battle Group to the northern Arabian Sea to support coalition combat operations.
- Italy deployed more than thirteen percent of its naval forces for use in OEF. The "Durand de La Penne" Group (one destroyer and one frigate) relieved the Carrier Battle Group on March 15, 2002.
- The Italian frigate "Euro" transited the Suez Canal on May 8 to relieve both combatants on station.
- Italy moved more than 17,000 lbs. (27 cubic meters) of supplies and equipment from Brindisi to Islamabad, Pakistan, on March 19, 2002. Supplies/equipment included a forklift and equipment from the World Food Program.
- On April 18, Italian aircraft and security forces transported former King Mohammed Zahir Shah and AIA leader Hamid Karzai from Rome to Kabul without incident.

Japan

- Provided fleet refueling capability, placing two refueling/replenishment ships and three support/protection destroyers in the AOR. Through mid-May, this force had conducted 75 at-sea replenishments of coalition ships and provided 34.1 million gallons of F-76 fuel to U.S. and UK vessels.
- Also as of mid-May, six C-130 aircraft had completed 51 missions consisting of 166 sorties with 773 tons of cargo and 123 passengers in support of re-supply and transport requirements within the Pacific Command (PACOM) AOR.
- On May 17, the Government of Japan approved a six-month extension of the Basic Plan authorizing the Self Defense Forces to continue these efforts.

Jordan

- An "Aardvark" mine clearing unit and personnel are currently deployed to Kandahar, and have cleared mines from more than 70,000 square meters in both Bagram and Kandahar.
- Jordan has provided basing and over-flight permission for all U.S. and coalition forces.
- As of May 16, 2002, the Jordanian hospital in Mazar-e-Sharif had helped 57,536 patients: Military - 989; Civilian - Women: 22,297, Men: 18,861, Children: 15,389.
- Performed 683 surgeries.

Kazakhstan

- In July 2002, Kazakhstan signed an agreement with the US that permits US and coalition aircraft to make emergency landings and refuel at the international airport in Almaty.[186]

Kuwait

- Kuwait has provided basing and over-flight permission for all U.S. and coalition forces.

[186] The Washington Times, July 11, 2002, p. 15.

- Country representatives arrived at CENTCOM on Feb.14, 2002. There are currently three personnel at CENTCOM to support current operations in OEF.

Latvia

- Approved use of airspace, airfields and ports for GWOT.
- Offered to provide ten cargo handlers as part of Danish contingent deployed to Manas, Kyrgyzstan.

Kyrgyzstan

- As part of backfill, Kyrgyzstan has offered to double (to two infantry companies) SFOR contributions and more than double (to 25 soldiers) KFOR contributions.

Lithuania

- Approved use of airspace, airfields and ports for GWOT.
- Offered to provide ten cargo handlers as part of Danish contingent deployed to Manas.
- Scheduled to deploy an ambulance with medics as part of a Czech Republic contingent.
- Offered SOF platoon, military divers, translators, minesweeper, aircraft and maintenance support to SFOR/KFOR.

Malaysia

- Has approved all requests for over-flight clearance since September 11.
- Has provided access to Malaysian intelligence.

Netherlands

- An Air Force KDC-10 is currently deployed to Al Udeid, Qatar. To date, C-130 aircraft have completed three HA flights under the Dutch national flag.
- The Netherlands will deploy one C-130 aircraft to Manas to assist with the movement of cargo.
- Dutch F-16s will be deployed to Manas in October.
- Two Dutch naval frigates are currently operating in the CENTCOM AOR. Other naval ships, along with Air Force P-3s, will relieve U.S. units in the U.S. Southern Command AOR.
- One person is working as a planning officer at the Regional Air Movement Control Center (RAMCC).
- The Netherlands has contributed 220 troops to ISAF.
- On March 27, 2002, a NLD officer arrived at the RAMCC.

New Zealand

- New Zealand Special Air Service (SAS) troops work alongside the forces of other nations in Afghanistan. They fill an important role by being part of the international effort to stabilize the area.
- New Zealand provided logistics and humanitarian airlift support in Afghanistan with Air Force C-130 aircraft. These aircraft were made available to help move the backlog of equipment and supplies needed for OEF.
- A seven-person Air Loading Team (ALT) was deployed to support ISAF.
- New Zealand will deploy up to eight officers to staff the ISAF headquarters.

Norway

- Norwegian Hydrema 910 mine clearing vehicles and personnel have been responsible for clearing more than 640,000 square meters of terrain on Kandahar and Bagram airfields and surrounding areas since their deployment on Jan 1, 2002.
- SOF self-deployed into Afghanistan and are currently providing a full spectrum of missions there.
- Norwegian Air Force C-130 aircraft operating from Manas airbase are providing intra-theater tactical airlift support and support to OEF. On a national basis, the C-130 has conducted re-supply missions for Norwegian SOF forces and HA missions to Afghanistan.

- Norway will deploy F-16s to Manas in October.
- Norway's SOF exploitation missions have yielded valuable intelligence.
- Norway has provided 15 hardened vehicles ($1.5 million) that are currently supporting SOF missions and providing leadership transport.
- In the unified effort to rebuild the Afghan Army, Norway has donated personal items and equipment for a 700-person light infantry battalion.

Pakistan

- Pakistan has provided basing and over-flight permission for all U.S. and coalition forces.
- Pakistan has deployed a large number of troops along the Afghanistan border in support of OEF.
- Pakistan has spent a large portion of its logistical reserves to support the coalition, a very significant contribution in light of Pakistan's economic difficulties and self-defense support requirements.
- Country representatives arrived at CENTCOM on March 14, 2002. There are five at CENTCOM.
- The Inter-Services Intelligence (ISI) has helped in various phases of operations.

Philippines

- The Philippines has provided landing rights and base support for U.S. aircraft.
- It has granted unconditional blanket over-flight clearance.
- It has offered medical and logistical support for OEF.

Poland

- Polish combat engineers and logistics platoon forces recently deployed to Bagram via Kabul.
- Eight AN-124 flights were coordinated with the RAMCC to move those forces. That was a large and costly operation for the Poles.
- Since their arrival in mid-March, those engineers have cleared mines from more than 4,000 square meters of land.

Portugal

- Portuguese country representatives arrived at CENTCOM on Dec. 13, 2001.
- Portugal has a medical team of eight people and a C-130 with a maintenance team of fifteen people currently under ISAF control.

Republic of Korea

- A Republic of Korea naval vessel transported more than 1,000 tons of critical construction material from Singapore to Diego Garcia to support the demand for OEF building materials.
- Additionally, the ROK has pledged more than $45 million to aid in the reconstruction of Afghanistan.
- The ROK has deployed a Level II hospital to Manas.
- ROK Air Force C-130s have flown 18 flights between Seoul and Diego Garcia, as well as five flights to Islamabad. Those flights were responsible for transporting more than 45 tons of humanitarian relief supplies valued at $12 million.

Romania

- On Sept. 19, 2001, the Romanian Parliament approved basing and over-flight permission for all U.S. and coalition partners.
- Three liaison officers arrived at CENTCOM on Dec. 10, 2001. One of them is working in the Coalition Intelligence Center.
- Romania will deploy one infantry battalion into Afghanistan. Additionally, one Infantry Mountain Company, one Nuclear, Biological, Chemical (NBC) Company, four MiG 21-Lancer aircraft, and medical personnel have been offered.
- For ISAF, Romania has deployed one Military Police Platoon and one C-130 aircraft.

- The Romanian government has delivered a large quantity of training equipment for the Afghan National Guard as well.
- The Romanian Parliament recently approved the deployment of a 405-person motorized infantry battalion, a 70-person NBC company, and 10 staff officers.
- Romania has donated the following items in support of the ANA: 1,000 AK-47 assault rifles; 300,000 rounds of ammunition, magazines and cleaning sets

Russia

- Russia started providing humanitarian assistance to the population of Afghanistan in October 2001.
- Russia has supported HA operations by transporting more than 420,296 tons of food commodities, 2,198 tons of medicines, 15,282 beds, 1,200 heaters, 13 mini electric power stations, 780 tents, 11,000 blankets, 49,674 bedding kits, 11,000 kitchen utensils, and nine tons of detergents.
- In December 2001, Russian personnel started reconstruction of the Salang tunnel, a major transport structure, connecting the northern and southern provinces of Afghanistan. In January 2002, the Salang tunnel was officially opened for regular traffic.
- In January 2002, as a result of a joint Russian-German project, pontoon passage across Pianj River was put into service. Together with the Salang tunnel, it allowed the organization of a continuous route from Tajikistan to the central region of Afghanistan for the delivery of international humanitarian assistance.
- Russia provided the first coalition hospital in Kabul on Nov. 29, 2001. The hospital treated more than 6,000 patients before Russia turned the facility over to the local population on Jan. 25, 2002.
- On March 29, 2002, EMERCOM, Russia's emergency response organization, deployed its mobile hospital to Nakhreen and began medical assistance to the victims of the earthquake in Afghanistan.
- Thus far, EMERCOM has delivered over 100 metric tons of HA supplies to the Nakhreen area to include: provisions, medicines and means for cleaning water.
- Additionally, Russian rescue teams have conducted search and rescue operations throughout the area.

Slovakia

- On Sept. 18, 2001, Slovakia notified the U.S. that it would grant blanket overflight and basing rights to all coalition partners.
- Slovakia dispatched a liaison officer to Central Command HQ on March 10, 2002.
- Slovakia will deploy an engineering unit into Afghanistan.
- Additionally, Slovakia has offered a special forces regiment, NBC reconnaissance units, and a mobile field hospital.

Spain

- Spain has deployed one P-3B to Djibouti, two C-130s to Manas, and one C-130, which accomplished its mission and is back in Spain.
- Two naval frigates and one deployed to the CENTCOM AOR to support continued operations in OEF.
- Spanish maritime patrol aircraft began conducting reconnaissance operations from a French base in Djibouti.
- Spain deployed SAR helicopters to Manas on April 12.
- As of May 16, 2002, the Spanish hospital in Bagram had helped 6,343 patients (military: 1,110; civilian: women – 1,261, men – 1,670, children – 2,302) and performed 66 surgeries.

Sweden

- Country representatives arrived at CENTCOM on Mar. 28, 2002. There are currently two personnel at CENTCOM.

Turkey

- Turkey has provided basing and overflight permission for all U.S. and coalition forces.

- One Turkish officer is scheduled to work as a planning officer at the Regional Air Movement Control Center (RAMCC).
- Turkey was the first coalition country to provide KC-135 aerial refueling support for U.S. aircraft during their transits to the CENTCOM AOR.
- Turkey, as of June 20, assumed the position as lead nation for the second phase of ISAF operations in Afghanistan.[187]

United Arab Emirates

- Country representatives arrived at CENTCOM on Nov. 1, 2001. There are currently three personnel at CENTCOM.

United Kingdom

- Country representatives arrived at CENTCOM on Sept. 18, 2001. There are currently 38 personnel at CENTCOM. The UK also has staff attached to every major U.S. component command.
- The senior British Major General serves as deputy commander for all coalition naval forces in theatre and is responsible for coordinating extensive operations. British forces have participated in MIO and Tomahawk Land Attack Missile (TLAM) operations.
- The Royal Air Force has provided aircraft throughout the region and contributed high-value assets in the critical areas of aerial refueling; Airborne Early Warning (AEW); and Intelligence, Surveillance and Reconnaissance (ISR).
- UK ground forces have participated in both OEF and ISAF missions. A company of Royal Marines from 40-Commando deployed to Kabul and has contributed to airfield security and mine clearing operations, including the provision of special equipment at both Bagram and Kabul international airports.
- UK was the first nation to send military representatives and campaign planners to CENTCOM.
- The UK has deployed the largest naval task force since the Gulf War to support OEF.
- Additionally, the UK provided the only coalition TLAM platforms to launch missiles during the commencement of OEF hostilities.
- The UK assumed the lead for the initial ISAF operation.
- On March 21, the UK began the deployment to Afghanistan of a 1,700-person infantry battlegroup, built around 45-Commando and Royal Marines. Those arctic and mountain warfare-trained troops operate as part of a US-led brigade and conducted operations along the Afghanistan-Pakistan border in search of Al Qaeda and Taliban fighters as well as weapons caches. On July 9, a majority of the Royal Marines completed their tour of duty in Afghanistan.[188]

Uzbekistan

- Uzbekistan has provided basing and overflight permission for U.S. and coalition forces.
- Uzbek country representatives arrived at CENTCOM on Dec. 26, 2001. There are four Uzbek personnel at CENTCOM.

There were significant initial problems in deploying allied forces. The basing, transportation, and support systems available at the start of the campaign limited US ability to accept allied forces. So did the lack of language training, command and control assets, cross-training in the use of US ISR equipment and battle management techniques, and problems in combat rescue and force protection capabilities. Most allied forces lacked strategic mobility and sustainability and the US was no organized to use many of the assets other countries offered. The lack of a clear US nation-building plan, and prior allied planning for such a mission, also meant

[187] The Washington Post, June 21, 2002, p. 19.
[188] Baltimore Sun, July 10, 2002.

that the US was relatively slow to recognize the importance of nation-building and peace keeping support.

The situation changed radically as time went on, however, and the value of allied forces became clear. By June 2002, 20 nations had deployed more than 16,000 troops to the U.S. Central Command's region of responsibility. In Afghanistan alone, coalition partners contributed more than 7,000 troops to Operation Enduring Freedom and to the International Security Assistance Force in Kabul – making up more than half of the 14,000 non-Afghan forces in Afghanistan.

"Closing the Sensor to Shooter Loop" to Near-Real Time: Improved Intelligence, Targeting, Precision Strike, Assessment and Re-strike Capabilities[189]

No one can dismiss the major impact of new technologies on the fighting, particularly when they were employed with new tactics and as part of new systems. According to General Tommy Franks, the US had flown an average of 200 sorties per day in Afghanistan by early February 2002, which is significantly less than the sortie rate in Operation Desert Storm of 3,000 per day. In Afghanistan, the US was, however, able to hit roughly the same number of targets per day as in Desert Storm.[190] General Franks stated that while the US needed an average of ten aircraft to take out a target in Desert Storm, a single aircraft could often take out two targets during the fighting in Afghanistan. Unofficial estimates claim that Navy aircraft experienced a 70-80% success rate in hitting designated targets.[191] There also was much greater surge capability to use precision weapons against a major array of targets. In one case, the US dropped roughly 100 JDAMs in a twenty-minute period.[192]

Those estimates almost certainly exaggerated US performance. Both the Assistant Secretary of Defense for Public Affairs and the preliminary findings of the Department of Defense's Task Force Enduring Look – the US military team examining the lessons of the war -- have cautioned that this is the case.[193] Nevertheless, it is clear that there have been major improvements in US combat performance over that in past wars - improvements made possible by a number of factors, including added reliance on precision-guided weapons and the new abilities of US forces to draw on greatly enhanced ISR capabilities.[194]

The US was able to link its air and ground forces to power ISR assets. It could provide real-time imagery (PHOTINT) and electronic intelligence (ELINT) data on the movements of enemy and friendly forces. It could cover and characterize fixed targets and cover and target mobile enemy forces with high precision in real time even as they were engaged by Afghan ground forces, from imagery satellites, U-2s, E-8 JSTARS, RC-135 Rivet Joints, E-3A AWACS, E-2s, P-3s, and UAVs, like the Global Hawk and Predator. Signals intelligence (SIGINT) also played a role, however, it was not automated in a form that allowed the same degree of instant

---

[189] For a good preliminary analysis of these lessons of war, see Bryan Bender, Kim Burger, and Andrew Koch, "Afghanistan: First Lessons," Jane's Defense Weekly, December 19, 2001, pp. 18-21.
[190] Aerospace Daily, February 20, 2002; General Tommy Franks testimony to the Senate Armed Services on February 5, 2002. http://www.centcom.mil/news/transcripts/General%20Franks%20Testimony%205Feb02.htm.
[191] See Erwin, Sandra I., "Naval aviation: lessons fro war; Enduring Freedom reinforces need for new targeting pods, radar, data links." National Defense, National Defense Industrial Association, June 1, 2002, p. 16.
[192] Aerospace Daily, February 20, 2002; General Tommy Franks testimony to the Senate Armed Services on February 5, 2002. http://www.centcom.mil/news/transcripts/General%20Franks%20Testimony%205Feb02.htm.
[193] ABC News background brief and Defense Daily, April 10, 2002, p. 7.
[194] For a good discussion of the operational strengths and weakness of current systems, see Christopher J. Bowie, "Destroying Mobile Ground Targets in an Anti-Access Environment," Northrop Grumman Analysis Center Paper, Washington, December 2001.

reporting and communication. Advances in US sensors, moving target radars, and synthetic aperture radars also reduced problems associated with weather and cloud cover.

The US had the technical capability to communicate this data, which included targeting data for US bombers and strike fighters, Special Forces and other ground forces, and sea-launched cruise missile platforms. This allowed aircraft like the F-16, F-15, AC-130, F-18, B-1, and B-52 to not only operate with near-real time intelligence, but to retarget in flight and in some cases re-strike after damage assessment from forces on the ground.[195] At the same time, a family of new, light ground systems like the Joint Tactical Terminal used by US Special Forces and other ground forces, the components of the Integrated Broadcast Service, new laser illuminators, GPS systems, and satellite uplinks transformed tactical ISR operations in the field.[196]

The US ability to use such data to conduct precision strikes with both precision-guided weapons and area ordnance, and then, at least partially, assess damage as well as retarget and re-strike almost immediately, did involve a wide range of advances in tactics and technology. The US was able to "close the loop" in conducting air and missile strikes in near-real time. It was an impressive further development of techniques that owe their origins to the use of spotter aircraft and kill boxes in the Gulf War, and which were significantly further developed in Kosovo.[197]

A number of the tactical encounters between US and Al Qaeda forces have shown that it is now possible for air power to be far more effective and responsive in the close support of missions and for precision weapons to act as a partial substitute for artillery under conditions in which the enemy does not have high quality, short-range air defenses or large numbers of heavy weapons. A combination of fixed- and rotary-wing aircraft performed such missions well during the fighting at Tora Bora. In the current of phase of the fighting, however, US military officials concede that airpower is of limited use in locating and destroying small, dispersed pockets of Al Qaeda and Taliban fighters. Indeed, rapid "surgical" strikes by ground troops remain a more effective option for combating a dispersed enemy.[198]

"Asset Integration" and New Approaches to Land Warfare

It is equally clear that far more can be done to improve the integration of US sensors, battle management systems, strike platforms, communications, and the use of precision weapons in the future. Many of the US efforts during the Afghan conflict were improvised, relatively crude, and scarcely set the standard for the level of progress that can be achieved in "closing the loop." A number of analysts have since argued that the advances in battle management/ISR have reached the point where platforms are less important than achieving a broad fusion of battle management/ISR, and that precision strike assets that can be used to strike as effectively as possible in near-real time, regardless of the age of the launch platform.[199]

While much does depend on the sophistication of the opponent's air forces and air defense assets, stealth, and long-range stand-off munitions; the use of unmanned aerial vehicles (UAVs) and unmanned aerial combat vehicles (UACVs) offers a potential way to use such techniques even against sophisticated opponents. At the same time, land systems, like the High Mobility Artillery Rocket System, Netfires, and precision-guided artillery shells could provide land firepower capabilities with equal precision-fire capability and more mobility and ease of power projection than existing artillery systems. Though development of unmanned ground vehicles (UGVs) lags behind that of UAVs, in part because of the difficult nature of ground navigation, UGVs could offer further enhancements to already existing sensor and weapon

---

[195] Defense News, January 3, 2002, p. 1.
[196] Defense News, March 25, 2002, p. 8
[197] James G. Roche, "Transforming the Air force, Joint Forces Quarterly, Autumn/Winter 2001-2002, pp. 9- 12; Defense News, January 3, 2002, p. 1.
[198] The Los Angeles Times, July 15, 2002.
[199] For more details, see Defense news, April 22, 2002, p. 28, March 25, 2002, p.8

platforms.[200] During the war in Afghanistan, the United States, for the first time, utilized robots in a combat situation.[201] US soldiers used four robots, called PackBots, to reconnoiter 26 caves, four bunkers, an ammunition cache, and a building complex.[202] The PackBots can be fitted with as many as twelve video cameras, and can also employ a grenade launcher and a 12-guage shotgun.[203] The robots move on tracks, have arms that can be employed to lift them over tall obstacles such as boulders, and are powered by two, six-pound rechargeable batteries.[204] The manufacturer of the robots, iRobot Corporation, states that the PackBot is designed to be durable enough to survive a three meter fall onto concrete.[205] The robots are remote controlled by a man-portable computer/radio system designated the M-7, in which the operator guides the robot with a joystick.[206] The PackBot's design makes it effective at clearing mines: its height is one foot, which is tall enough to detonate trip wire booby-traps, weighs 42 pounds, which is heavy enough to detonate mines buried in the ground, and its cameras can be used to search for other booby-traps.[207] The robot systems were quickly developed and put into service over a 40-day period, four to six years ahead of schedule.[209] The cost of each PackBot is $40,000.[210]

The end result could be what some call "asset integration" and the creation of forces that combine land-air-sea systems into a near-real time mix of capabilities to "target-strike-assess-retarget-and re-strike" with an efficiency that has never been previously achieved.[211] It would extend joint warfare and combined arms to a new level.

Senior US Army officers also feel that this may be a key to force transformation for the Army. Rather than having to use a substantial number of forces to secure flank areas – forces which need heavy armor and artillery -, the Army could rely on sensors to avoid surprise and counter maneuver before the enemy could react. Air and missile power would substitute for heavy forces in many contingencies and air mobility would allow rapid maneuvering to strike at the most critical aspects of enemy ground force operations. The result could be smaller, faster, and more effective ground units that would also be much easier and faster to deploy and would require much less logistic and service support.

The Impact of UAVs and UCAVs

UAVs have become the focus of much of the attention given to technology during the Afghan conflict. The ability of UAVs, such as the Air Force RQ-4A Global Hawk, to see through clouds, detect heat on the ground, and fly at altitudes of up to 65,000 feet for roughly 30

---

[200] Joseph N. Mait and Jon G. Grossman, "Relevance and Risk: The U.S. Army and Future Combat Systems," Defense Horizons, Center for Technology and National Security Policy, National Defense University, May 2002, p. 4.
[201] Defense News, September 16-22, 2002, p. 28.
[202] Press Release, Exponent, Inc., http://www.exponent.com/about/news/090502.html.
[203] "Robots Risk Their Lives for U.S. Soldiers in Afghanistan," AP, ChannelOne.com, http://www.channelonenews.com/articles/2002/07/31/ap.robots/.
[204] "Robots Risk Their Lives for U.S. Soldiers in Afghanistan," AP, ChannelOne.com, http://www.channelonenews.com/articles/2002/07/31/ap.robots/.
[205] iRobot Corporation, http://www.irobot.com/rd/p08_PackBot.asp.
[206] Press Release, Exponent, Inc., http://www.exponent.com/about/news/090502.html.
[207] "Robots Risk Their Lives for U.S. Soldiers in Afghanistan," AP, ChannelOne.com, http://www.channelonenews.com/articles/2002/07/31/ap.robots/.
[208] Press Release, Exponent, Inc., http://www.exponent.com/about/news/090502.html.
[209] Press Release, Exponent, Inc., http://www.exponent.com/about/news/090502.html.
[210] "Robots Risk Their Lives for U.S. Soldiers in Afghanistan," AP, ChannelOne.com, http://www.channelonenews.com/articles/2002/07/31/ap.robots/.
[211] See Lt. Col. Merrick Krause, "How to Project Power: Asset Integration, Not Platforms, Get Results," Defense News, June 3, 2002, p. 19.

hours provided commanders with near-real time intelligence. As of June 14, 2002, UAVs had logged 1,000 combat flight hours.[212]

However, a lack of assets has been a problem. The US possesses only limited numbers of the key UAVs involved, and those limits interact with the fact that many of the "24/7" improvements it plans to make in imagery satellites and electronic intelligence satellites have not yet been deployed.[213] The US currently plans to buy 22 more RQ-1 Predators, at least three more RQ-4 Global Hawks, and twelve Army Shadows, but is only beginning to really determine the size of the fleet it will eventually need. A lack of military bandwidth capacity could also be a problem.[214]

There are also problems in the existing UAVs and in the ways they are used. The Predator has had considerable success. It can fly at altitudes up to 25,000 feet and can remain on station for more than 24 hours. It is equipped with electro-optical and infrared sensors, and synthetic aperture radar for all-weather and day/night coverage. Additionally, it can be modified to enable it to carry two Hellfire missiles and has a laser designator to illuminate targets. Those Predator UCAVs have deployed ordinance against targets in Afghanistan on at least four occasions, including the strike in which Muhammed Atef was killed, and was also used by the CIA in Yemen in an attack which killed Qaed Salim Sinan al-Harethi (Abu Ali), Al Qaeda's top operative there.[215] Predator has been the first real UCAV to enter US service.[216]

The Predator, nevertheless, remains a troubled system. It largely failed operational testing before the Afghan conflict, with some eight crashes in the six months before the conflict. It cannot take off in severe rain, snow, ice, or fog conditions; its imagery lacks the definition to find and characterize some types of targets; it is a slow flier (90 MPH) that operates best at 10,000 feet, which puts it within range of many forms of light anti-aircraft defense, and which has led to losses in Afghanistan and Iraq; it has awkward control systems and ergonomics; and each unit (four planes and a ground station) costs about $25 million.[217]

Since the beginning of operations in Afghanistan, two Global Hawk UAVs have crashed. While the first of these crashes was attributed to a faulty bolt, the more recent crash, which occurred in July 2002, is still under investigation. The Air Force's remaining Global Hawk UAVs have been grounded until the cause of the second crash can be determined.[218]

Evaluations of the performance of Predator and other drone aircraft in Afghanistan have been mixed. While military commanders cite the Predator's ability to "peer over the hill" and provide imagery of the landscape and layout of enemy forces in future combat zones, they also worry that forces preparing for battle may become too dependent on data from the Predators and be unprepared to handle non-visible threats. [219]

In March 2002, Predator drones provided US military officials in a variety of locations (including the air operations center in Saudi Arabia, Central Command, the Pentagon, and the CIA) with live pictures of ongoing combat operations as they evolved in Afghanistan. Though such images provided military commanders who were several thousand miles removed from the field with information and a first-hand, never-before-seen view of the battle, they also caused

---

[212] Joseph N. Mait and Jon G. Grossman, "Relevance and Risk: The U.S. Army and Future Combat Systems," Defense Horizons, Center for Technology and National Security Policy, National Defense University, May 2002, p. 4; Defense Weekly: Daily Update, July 3, 2002.
[213] Wall Street Journal, April 10, 2002.
[214] Wall Street Journal, April 10, 2002.
[215] Matt Kelley, "Pilotless Aircraft Become a Potent Weapon in War on Terror," The Associated Press, November 5, 2002
[216] Defense News, February 11, 2002, p. 3; USA Today, March 11, 2002, p. 3B.
[217] Boston Globe, February 6, 2002, p. 10; Jane's Defense Weekly, January 2, 2002, p. 6.
[218] The Washington Post, July 13, 2002, p. 11.
[219] The Washington Post, March 26, 2002, A-1.

headaches for the commander of regular U.S. ground forces in Afghanistan who was overseeing the operation. Throughout the battles in the Shah-i-Kot region, command personnel at higher levels and those operating in other locations relayed numerous questions and much advice to the commander in the field in an attempt to contribute to the management of the battle as it unfolded. The regional commander responded by posting updates on the progress of the battle on the military's internal computer network.

Nevertheless, the episode reveals the powerful influence that live pictures from the battle zone may have on the ability of the on-site commander to determine and execute a successful battle-plan. The last thing on earth that the US field commanders need is an overcomplicated chain of command, in which officers thousands of miles away from the scene of battle provide armchair advice based on pictures rolling across a television screen. If such imagery is to be used effectively, an effective way of analyzing it and providing feedback to the commander on the ground must be developed.[220]

Military officials argue that the Predator could be a far more effective tool if commanders could communicate with the team operating it, much like they do with helicopter or fighter pilots, issuing instructions and calibrating the use of the drone so as to advance the overall goals of the mission at hand.[221]

The Predator's operational limits have also led to plans to equip it with much more lethal weapons that have stand-off range (like LOCAAS) and develop a Predator B to replace the existing Predator RQ-1. The B would increase range well over the present 740 kilometers; increase speed from 138 to 253 miles per hour; increase payload from 450 to 750 pounds; increase maximum altitude from 25,000 to 45,000 feet; and increase wingspan from 48.7 to 64 feet and length from 27 to 34 feet.[222] The US is also seeking to develop an export version for NATO allies.[223]

Another UAV, called the Dragon Eye, will be fielded in summer, 2003. The Dragon Eye is made of foam and fiberglass, weighs only five and a half pounds, and has a width of 45 inches. It is designed to be carried by backpack and to be used to conduct reconnaissance of hazardous areas. Dragon Eye employs video and infrared cameras and their images are transmitted to the operator via wireless modem. Once airborne, the Dragon Eye does not need to be manually flown as it steers itself by means of GPS. One weakness of the Dragon Eye is that its camera cannot function during moderate or heavier rain. All infantry battalions in the Marine Corps will be receiving a squadron of Dragon Eyes.[224]

Despite these limitations, UAVs and UCAVs have proven to be a worthwhile asset in Afghanistan and have reached the stage of development in which they are able to operate as "semi-autonomous sensors" and weapon platforms.

The Strengths and Weaknesses of Other Platforms

Little detail is available on the strengths and weaknesses of the Airborne Warning and Control System (AWACS), JSTARS, U-2, Rivet Joint, P-3, satellite, and other sensor platforms that ultimately did most of the work. It is clear from the FY2003 defense budget submission,

---

[220] The Washington Post, March 26, 2002, A-1.
[221] The Washington Post, March 26, 2002, A-1.
[222] Defense News, June 10, 2002, p. 20.
[223] Defense News, May 6, 2002, p. 6..
[224] Noah Shachtman, "Why War is Really Just a Game," Wired, http://www.wired.com/news/politics/0,1283,52766,00.html.
[225] Joseph N. Mait and Jon G. Grossman, "Relevance and Risk: The U.S. Army and Future Combat Systems," Defense Horizons, Center for Technology and National Security Policy, National Defense University, May 2002, p. 4; Defense Weekly: Daily Update, July 3, 2002.
[226] Wall Street Journal, June 26, 2002; Jane's Defense Weekly, June 19, 2002, p. 16; The Washington Post, July 5, 2002, p. 19.

however, that funds are being provided to improve virtually every system and that serious attention is being given to adding sensors to aircraft like tankers, and adding more sophisticated mixes of sensors to existing aircraft.

The idea of having a single platform that could perform the functions of the AWACS and JSTARS is also being explored. Similarly, at least some of the data links used to provide real time retargeting data to aircraft were still relatively crude and had poor ergonomics and avionics. Additionally, air munitions were not fully optimized to use such data.

Dealing with Mobile Targets

Senior defense officials believe that the fighting in Afghanistan shows that, since the Gulf War, the US has made significant advances in addressing the problem of identifying and destroying mobile targets. During the Gulf War, the USAF and Navy unsuccessfully targeted Iraq's Scud missiles, flying 1,460 sorties that failed to destroy a single missile battery. In contrast, during the fighting in Afghanistan, the US Navy attacked 2,500 mobile targets and has claimed to have achieved a 65% hit rate.

As of June 2002, the Navy claimed that aircraft had struck 2,000 mobile targets.[227] Experts attribute this significant achievement to the use of improved precision munitions and communications technology, as well as the use of UAVs to gather target information. Air Force officials also cite the presence of Special Forces personnel, who could more readily identify mobile targets from the ground, as crucial to the success of the air missions over Afghanistan.

The use of satellite-guided smart bombs, which are accurate regardless of weather conditions, along with reliance on the Joint Surveillance Target Attack Radar System (JSTARS), which can track several mobile targets simultaneously, has also contributed to the increased level of success in hitting mobile targets. Based on the successful integration of ground and air forces in pursuit of mobile targets, it is likely that "Scud hunting" may be a key feature of any future conflict with Iraq. [228]

In Afghanistan, targeting data from JSTARS was fed directly to F-15E pilots, allowing them to respond quickly and strike targets before their locations changed. Though UAVs, such as the Global Hawk, were able to provide imagery of mobile targets, a means to transmit such information directly to USAF and Navy pilots has yet to be developed. Currently, UAV information is transmitted to the CAOC in Saudi Arabia where analysts determine potential targets and relay specific target coordinates to the battlefield. Military officials describe the CAOC as an essential component that has greatly enhanced US efforts in Afghanistan. As a hub of communications between unmanned and manned aircraft, it provided commanders with a complete, up-to-date picture of the battlefield.[229]

If the USAF and Navy are to further increase the percent of successful hits to mobile targets, it will be necessary to reduce the "sensor-to-shooter" time between UAVs and fighters by developing direct lines of communication between the unmanned and manned aircraft. Some steps have been taken to address this issue, as evidenced by the USAF's linking of Predator imagery directly to the cockpit of AC-130 gunships. This, in turn, has allowed the gunship crews to determine the location of targets and the features of the surrounding areas before actually arriving at the target areas. Much work, however, remains to be done.[230]

The Problem of ISR Asset Density

Afghanistan may have been a small war, but it consumed a very large number percentage of total US ISR assets. The US had to have at least four photo reconnaissance-class

---

[227] Defense Daily, July 9, 2002, p. 3.
[228] The Washington Post, July 5, 2002, p. 14.
[229] The Washington Post, July 5, 2002, p. 14, Air Force News, May 29, 2002; Aviation Week and Space Technology, March 11, 2002, p. 24.
[230] The Washington Post, July 5, 2002, p. 14, Air Force News, May 29, 2002.

satellites and two radar-imaging satellites in operation, however, experts estimate that Afghanistan and the surrounding area can be photographed roughly every two hours.[231]

CIA director George Tenet instructed the military and intelligence community to rely on high-resolution imagery from private satellite networks to complete more basic tasks, such as assembling aerial maps of Afghanistan. The campaign in Afghanistan has been the first time ever in which private satellite data was relied on by the US military. This move preserves the use of the limited but more sophisticated and higher resolution government satellites for specific tasks, such as determining precise military targets and assessing the damage from a US or coalition strike against a target.[232]

There were equal limitations in ISR resources at the tactical level. The number of Special Forces teams that could be deployed to provide on-the-ground intelligence and targeting designation was very limited, and probably only a fraction of the number that will be found useful in the future.[233] Many of the on-the-ground data links, targeting systems, and communications systems provided to special forces and rear area intelligence/targeting analysts lacked the desired range and reliability and can still be greatly improved.[234] Other such improvements include the provision of lighter and longer-range laser designators and light all-terrain vehicles and trucks that offer higher mobility and less detectability than systems like the High Mobility Multipurpose Wheeled Vehicle (HMMWV).[235]

ISR and "Friendly Fire"

Furthermore, virtually all of the assets involved can be improved in ways that simultaneously increase the tactical impact of given strikes, increase their lethality, and reduce the risk of friendly fire, civilian casualties, and collateral damage. It should be noted that while the media has focused largely on collateral damage, putting an end to tragic friendly fire incidents like the US air strike that killed four Canadian soldiers in May 2002 are also very important.[236]

The incident mentioned above was due more to pilot error and command decisions than any fault in the ISR system. An F-16 pilot misinterpreted a night firing exercise and, believing he was being attacked (even though his altitude was 28,000 feet), dropped a laser-guided, 500-pound GBU-12 bomb on the Canadian troops who were conducting that exercise.[237] A more integrated ISR system might have told him that he was flying over friendly forces. Similarly, an earlier incident in December 2001, when a B-52 dropped a 2.,000 pound JDAM that killed three US soldiers and wounded twenty others might have been avoided.[238]

There were also many ambiguous cases involving Afghan civilians who may or may not have been taking part in hostile action or may have been near or mixed with persons who were. The July 1, 2002 incident in which 40 afghans attending a wedding party died when an AC-130 fired in response to what it said was hostile fire, but where no confirming evidence was readily available when an after action ground investigation took place, is only one of the many cases where there was not clear dividing line between the problem of "friendly fire" and collateral damage.[239]

---

[231] Jane's Defense Weekly, October 17, 2001, p. 6.
[232] The New York Times, June 26, 2002.
[233] Dana Priest, "In War, Mud Huts and Hard Calls," Washington Post, February 20, 2002, pp. A-1 and A-8
[234] Defense News, February 11-17, 2002, p. 8.
[235] Defense News, February 11-17, 2002, p. 8.
[236] See the Ottawa Citizen, June 26, 2002, p. 12.
[237] New York Times, June 19, 2002; Washington Post, June 19, 2002, p. 22.
[238] International Herald Tribune, December 7, 2001; Christian Science Monitor, December 7, 2001.
[239] Jim Garamore, "Operations Continue in Eastern Afghanistan," American Forces Information Service, July 18, 2002, www,defenselink.mil/news/Jul2002/n0718002_200207183.

It is not clear that minimizing friendly fire has, as yet, been given the proper priority in US ISR designs and procedures. Certainly, technology may be approaching the point at which the US may be able to create some form of personal identification of friend or foe (IFF) system might be both affordable and technologically feasible.

The Decision Time Problem

Some analysts feel that the Afghan conflict shows that reducing decision time is now a critical issue. They feel that changes to the sensor-to-shooter cycle suggest that the Find-Fix-Track-Target-Attack-Assess (FFTTAA) parts of the sensor-to-shooter cycle have improved so much since Desert Storm and Kosovo that US forces now have the ability to find, classify and put ordinance on targets before those targets can get away. For instance, while in Desert Storm it took, in a particular instance, 80 minutes to complete the sensor-to-shooter cycle when identifying and targeting an SA-2 site, in Afghanistan sensor-to-shooter times decreased, on average, to just twenty minutes.[240] Indeed, in Afghanistan it was not these problems that caused US aircraft to miss opportunities to destroy targets. Rather, it was the "decision time" necessary to get authorization to act which cost opportunities to engage legitimate targets because of the time it took to make the decision to attack. They feel that examination of the data and lessons learned during the war will show that decision time has become the "long pole in the tent." Shortening the decision segment of the cycle would have a major effect on our future ability to strike time-sensitive targets and, therefore, improve future combat effectiveness.[241]

This issue is rooted in the problem of command authority and the rules of engagement (ROE) as promulgated, interpreted and acted upon – more specifically the extent to which the decision authority should be delegated to subordinate components and/or operational/tactical levels of command. Afghanistan (like every other conflict) has unique political aspects: the extent and perceptions of collateral damage were very important in the broader context of how the international Muslim community (and others) would react to US operations against a terrorist network that happened to be associated with Muslims.

As a result, rules of engagement (ROE) were applied that had a significant impact on the length of the decision process and drove the time length of the decision segment far more than any other element (like weapon accuracy) in this part of the cycle. The less precise the guidance provided to the warfighter or the more restrictive the ROE, the longer it takes to complete the decision segment of the cycle. One possible reason for this is that technical components of the FFTTAA steps in the cycle have received primary attention and resources over the last ten years and are more optimized from the standpoint of putting ordinance on target, but the technology, systems, and procedures we have today do not do as well when it comes to acquiring and disseminating the types of information the person in the loop needs to determine if the rules of engagement permit attacking the target.

The fighting in Afghanistan was unique in that after its initial stages a majority of Navy aircraft began their missions either without specific targets or had their designated targets changed while in flight. The Navy estimates that roughly 80% of the total number of Navy-led air strikes were against time-critical targets identified during a mission. This was, in part, because of the significant time lag that resulted from having aircraft based far from the battlefield. In many cases, mission briefings occurred up to nine hours before aircraft actually arrived on scene. During this time period, targets and the overall layout of the battlefield often changed. This led to a situation in which the number of in-flight aircraft sometimes

---

[240] Joseph N. Mait and Jon G. Grossman, "Relevance and Risk: The U.S. Army and Future Combat Systems," Defense Horizons, Center for Technology and National Security Policy, National Defense University, May 2002, p. 4.

[241] For an interesting Israel perspective on these issues, see Avi Kober, Reflections on Battlefield Decision and Low Intensity Conflict, Ramat Gan, Bar-Ilan University, BEA Center for Strategic Studies, May 2002.

outnumbered the number of identified targets. While there is evidence to suggest that technological improvements have enabled the military to become more adept at handling a free-flowing targeting environment, some analysts argue that the military must work to improve its time-critical strike capabilities.[242]

In order to successfully execute a time-critical strike, an aircraft must be equipped with the necessary munitions. JDAM and other satellite-guided munitions, for instance, require more targeting time than a laser-guided munition. This is in part because a pilot must obtain specific GPS coordinates, check their accuracy, and then input them into a computer before launching a satellite-guided bomb. Successfully utilizing laser-guided munitions, however, requires that pilots be able to spot and maintain a lock on a target from their aircraft. In many cases, the fighter aircraft on these missions were not equipped with adequate forward-looking infrared sensors (FLIR), making it difficult for pilots to complete this task. When pilots and their wingmen are given targets while they are in mid-flight, they do not have the opportunity to study maps of the target areas, therefore, the need for quality sensors is especially critical to the success of a time-critical strike. But even with accurate sensors and information from AWACS and other surveillance aircraft, pilots indicate that they worry whether they are in fact striking legitimate targets.[243]

Lack of availability of FLIR systems contributes to training problems as well, with many officials expressing concern that the constant rotation of FLIR equipment from carrier to carrier leads to shortcomings in training opportunities. Advances have been made in FLIR technology, and the new AT-FLIR is supposed to provide pilots with improved pictures of targets. Additional enhancement could be made to combat aircraft by providing them with a direct connection to UAVs, thereby providing pilots with the same real-time video of the target zone that commanders on the ground have. Combined with improvements in communications, modifications are necessary to increase accuracy in time-critical strike situations. In Afghanistan, aircraft had the luxury of flying over target areas multiple times before dropping their munitions (in part because the enemy lacked the weapon technology to pose a serious threat to US aircraft). In future conflicts US aircraft may not have this luxury, so quick identification and destruction of targets will become vital.[244]

If this thesis is supported by the facts and data being extracted from the official review of the lessons of Afghanistan, then one of the transformational implications of the war is that improving the decision segment of the sensor-to-shooter cycle can have transformational effects at little or no cost. It may also be possible to determine what categories of hardware, systems and procedures still need to be developed or improved to contribute information and data to facilitate the ROE process or remove procedural impediments to achieving the objectives of the ROE without missing opportunities to engage legitimate targets.[245]

The Problem of Targeting, Intelligence, and Battle Damage Assessment

Technology, however, is only part of the challenge. During the Gulf War, Desert Fox, and again in Afghanistan, the US faced several major problems in using its strike power effectively that will not be solved with better sensors and command, control, communications, and information (C^4I) systems. The problems associated with targeting terrorist and asymmetric

---

[242] See Erwin, Sandra I., "Naval aviation: lessons fro war; Enduring Freedom reinforces need for new targeting pods, radar, data links." National Defense, National Defense Industrial Association, June 1, 2002, p. 16; Aviation Week and Space Technology, April 29, 2002, p. 55.

[243] See Erwin, Sandra I., "Naval aviation: lessons fro war; Enduring Freedom reinforces need for new targeting pods, radar, data links." National Defense, National Defense Industrial Association, June 1, 2002, p. 16.

[244] See Erwin, Sandra I., "Naval aviation: lessons fro war; Enduring Freedom reinforces need for new targeting pods, radar, data links." National Defense, National Defense Industrial Association, June 1, 2002, p. 16.

[245] See Erwin, Sandra I., "Naval aviation: lessons fro war; Enduring Freedom reinforces need for new targeting pods, radar, data links." National Defense, National Defense Industrial Association, June 1, 2002, p. 16.

forces have already been touched upon, as have the related problems of estimating collateral damage and civilian casualties.

These problems are virtually certain to be just as serious in future conflicts, regardless of the type of conflict. Most Middle Eastern wars will not be "mud hut" conflicts and the US may well face large-scale conventional contingencies in which a power, like Iraq, chooses to fight inside cities and urban areas rather than in the open desert. It may also have to strike at similarly dispersed CBRN facilities and forces. Furthermore, it may find that factions and their efforts to use or mislead the US in conducting strike operations can also be a major problem in places like Iraq.

The US already makes a major effort to avoid collateral damage in its air strikes and applies highly demanding rules of engagement in Afghanistan.

- *First, it does so by taking account of malfunctions/errors.* Malfunctions/errors can and do occur when weapons are used, which is why classified planning data has been created to predict such problems and why the US follows certain procedures to try to mitigate such incidents. Incidents of this type include run-in restrictions, target acquisition/lock ROE, abort criteria, and pre- analysis planning of weapon/target match.
- *Second, the US explicitly estimates probable collateral damage to civilians and civilian structures that could potentially result from strikes on legitimate targets.* Here the pre-analysis considers specific munitions effects in the initial munitions selection. Depending on the potential expected collateral damage, different modeling tools are available to determine best kill/minimum damage (e.g. JWAC Level IV Analysis - if necessary). Even given the potential for "type two" collateral damage, a conscious command decision is often made (with lawyers involved) to determine if the desired military effect is proportional to the level of expected collateral damage.

US ability to locate some kinds of targets is far better than its ability to characterize them, judge their importance, or assess the level of damage it did to their functional capabilities once it strikes them. The US did not demonstrate during the Gulf War, Desert Fox, or in Afghanistan that it had a valid doctrine for striking at leadership, infrastructure, and civilian C^3I, LOC, and other rear area strategic targets. It essentially guessed at their importance and bombed for effect.

Reference has already been made to the fact that General Franks gave testimony to the Senate Armed Services Committee that while the US needed an average of 10 aircraft to take out a target in Desert Storm, a single aircraft could often take out two targets during the fighting in Afghanistan.[246] It seems virtually certain that figure will ultimately prove to be just as unrealistic as the initial battle damage claims made in the Gulf War, Desert Fox, and Kosovo.

To be blunt, the US military services and intelligence community simply do not have a credible battle damage assessment capability. They use an ever-changing set of rules that transform vague and inadequate damage indicators into detailed estimates by category and type. Their rules and methods have only the crudest analytic controls and cannot survive simple review methods, like blind testing. They rely heavily on imagery that cannot look inside buildings and shelters, which often cannot tell whether a weapon was inactive or had already been damaged by other kinds of fire, and which is essentially worthless in estimating infantry and human casualties.

US ability to characterize sheltered and closed-in targets remains weak, as does its ability to assess and strike at hardened targets. This remains a major problem in the case of nations that make extensive use of such facilities, like Iraq and Iran, but it is important to note that US sensors and teams on the ground never succeeded in characterizing many much simpler Taliban and Al Qaeda facilities, such as caves. For example, the Navy SEAL team that explored the cave

[246] Aerospace Daily, February 20, 2002; General Tommy Franks testimony to the Senate Armed Services on February 5, 2002. http://www.centcom.mil/news/transcripts/General%20Franks%20Testimony%205Feb02.htm.

complex at Zhawar Kili in February had no idea that it would turn out to be the largest complex yet uncovered and had to physically enter the area to determine that the US air strikes on the facility had little or no effect and left large stocks of supplies intact.[247] One way the United States is dealing with the problems posed by hardened targets is by developing a new 30,000-pound, precision-guided bomb, which will be the largest weapon of its type in the US inventory.[248] The bomb will be carried by the B-2, and may be ready for service in time for a possible conflict with Iraq.[249]

The US has better ability to assess physical damage to surface buildings, but limited ability to assess damage to their contents. Its ability to assess functional damage to complex systems, like land-based air defense systems, and the resulting degree of degradation in their operational capabilities, is also generally weak. The US had major problems in these areas in the Gulf War, Kosovo, and in ten years of strikes against the Iraqi air defense system. The US had – and still has -- major problems in locating key targets, like the leadership of hostile powers or the facilities and forces related to weapons of mass destruction.

The Middle East presents particularly serious challenges in terms of proliferation, since the US and its allies face ongoing problems in terms of proliferation in Iran, Iraq, and Syria, and the possible acquisition of such weapons by terrorist forces. More broadly, the ability to reliably perform battle damage assessment remains a weak link in the US ability to "close the loop," even in dealing with conventional military targets like armor, major weapon depots, and infantry.

In short, Afghanistan is yet another warning that "closing the loop" and many other potential advantages of the "revolution in military affairs" requires far better strategic assessment and intelligence capability to determine the nature and importance of targets, better ways to assess their strategic impact and the impact of striking them, and an honest admission by the US military services and intelligence community that its battle damage assessment methods are crude and inadequate, if not actively intellectually dishonest.

The Problem of Intelligence

There are broader lessons regarding intelligence. Afghanistan again showed the need to maintain a large cadre of language and area skills to deal with the need for area expertise, the ability to conduct coalition warfare, to support ground and air operations, and to deal with the complexities of targeting and battle damage assessment. The fact that the US was concentrated on China in the spring of 2001 and Afghanistan and some 67 other countries after September 11th, also shows that developing a suitable pool of field capabilities and analytical capabilities cannot be tied to predictions about future threats and scenarios.

Improving Intelligence Capabilities

Human intelligence (HUMINT) is one aspect of building up such capabilities, but its importance and value has often been exaggerated. It takes an average of two years to recruit, validate, and train a foreign source. The British found in dealing with Northern Ireland that it often took seven years to go further and penetrate a tightly organized network in some element of the IRA. US military officials did find human intelligence to be extremely helpful in making the decision to design and initiate the attack on Al Qaeda and Taliban forces in the Shah-i-Kot Valley. But they also emphasized the importance of combining that intelligence information with information from other sources in an attempt to develop the most accurate picture of the battlefield situation.[250]

---

[247] Washington Post, February 16, 2002, p. A-27.
[248] "New High Tech Weapons and Advanced Systems May Debut in a Conflict With Iraq," CDI, http://www.cdi.org/terrorism/new-weapons.cfm.
[249] "American Morning," CNN, Nov. 21,2002.
[250] Defense Week, April 1, 2002, p. 8.

Afghanistan is yet another demonstration that most human sources are unreliable or have only limited access to the collection target. Their information has only limited value and credibility unless it can be cross-correlated by an analyst using other intelligence sources. In short, HUMINT can help in some areas, but it normally will not be a solution to any major problem in technical intelligence collection and it has little or negative value without major improvements in analysis and the ability to focus and fuse all-source intelligence collection.

Similarly, "data mining" can automate some aspects of intelligence collection and can enable the intelligence community to make far better use of unclassified media and other sources. It can also help recognize patterns in terms of indications and warning. Data mining, however, is not a substitute for analysis and for large analytic staffs. At present, data mining also does a far better job of impressing the contractors and data systems experts that promote it, than the intelligence analysts and military personnel who use it. Data mining must be highly adaptable, easy to use, and constantly tailored to specific needs by experienced analysts to be of real help and not simply automate the problem of translating collection into analysis.

There is also a major difference between operations and both collection and analysis. Afghanistan again shows that virtually all low intensity and asymmetric wars require both intelligence and military personnel on the ground to support coalition operations, directly support targeting, and gain information in real time that can support operations. The US was fortunate that it had some recent regional Special Forces experience in Afghanistan, but it had only a very limited pool of military and CIA operations personnel and almost certainly would have done better with more.

Since Operation Anaconda, intelligence operatives from the FBI have been working closely with American military personnel hunting for Al Qaeda fighters in Pakistan. This new relationship is said to be closer than the previous relationships between military and intelligence services. FBI agents stationed in cities across Pakistan work to gather information on the whereabouts of suspected Al Qaeda and Taliban fighters and then relay that information to US Special Forces and Pakistani security forces who then decide whether or not to pursue the leads. Aware of local sensitivities, FBI agents have been careful to keep their presence muted, and rarely, if ever, accompany their Pakistani counterparts on a raid.[251]

US officials credit the new level of communications between the military and intelligence community as being responsible for the raid that led to the capture of Abu Zubaydah, believed to be Al Qaeda's field commander. Additionally, the FBI has assisted Pakistani security agents in successfully apprehending more than 70 suspected Islamic militants residing in major Pakistani cities. However, following a failed raid at a madrasa, residents in the city of Miran Shah staged a protest against the FBI's presence and involvement in such raids. The key to continued success, therefore, will be the FBI's ability to maintain a low profile while still assisting in efforts to capture militants. [252]

In short, improved intelligence and operations require improvements in all five areas: technical collection, processing and fusion, human intelligence (HUMINT), signals intelligence (SIGINT), and operations. Improving any given area, and particularly ignoring analysis, is not a lesson of the war and is an almost certain recipe for failure.

Indications and Warning

Finally, it seems highly doubtful that improvements in intelligence will succeed in doing a much better job of guaranteeing indications and warning than the US had before September 11th. It is important to note that the US had long seen Al Qaeda as an enemy and had prevented several previous attacks. September 11th came because Al Qaeda changed its methods, had an

[251] The New York Times, July 14, 2002, p. A-1.
[252] The New York Times, July 14, 2002, p. A-1.

unusually expert group of attackers, and was lucky. As has been noted previously, it seems likely that future attackers will also be innovative, and some will be highly professional and/or lucky.

Ever since the beginning of the Cold War, the US has conducted various post-crisis studies of pre-crisis indicators and warnings. Some have produced scapegoats, but some have made significant improvements in predictive and warning capabilities. In general, however, indications and warning analysis has simply kept pace with the evolution of threat techniques. The chances that any post Afghanistan improvements in indications and warning will be enough to prevent future attacks from succeeding are probably close to zero.

The Challenge of Force Transformation

There is no easy way to separate the Department of Defense's reaction to the lessons of Afghanistan from its broader force transformation efforts, which began early in the Bush Administration. The Quadrennial Defense Review was issued in the late fall of 2001, before there was time to react to the course of the fighting in Afghanistan. It set six major goals for force transformation: protect the U.S. homeland and critical bases of operation; deny enemies sanctuary; project and sustain power in access-denied areas; leverage information technology; improve and protect information operations; and enhance space operations. All of these goals have some application to the lessons of Afghanistan, however, and the planning and budgeting documents that have been issued since that time reflect both the Department's view of the initial lessons of Afghanistan and its conclusion that the US experience in fighting terrorism has validated many of the conclusions in its force transformation studies.

The "Force Transformation PDM"

While the plans for many aspects of the US force transformation effort are not yet complete, press reports indicate that the US Program Decision Memorandum 4, the so-called "Transformation PDM," called for: [253]

- Some $2 billion for improved satellite communications.
- A major acceleration of unmanned combat vehicle programs and serious examination of new programs to supplement or replace manned combat aircraft. Procurement of more RQ-1 Predators with the ability to fire air-to-ground (AGM-114) Hellfire missiles. Examination of the option of arming them with smaller 250- or 500-pound versions of the JDAM.
- Modification and improvement (including security and survivability) of the Global Positioning System.
- Procurement of much larger numbers of RQ-1 Predator, RQ-4A Global Hawk and other Unmanned Aerial Vehicle intelligence and targeting systems. That could include developments like converting retired manned aircraft to UAVs, or older target drones like the BQM-145, BQM-34S and MQM-34D.[254]
- Make major improvements to their endurance, payload capability, sensors, downlinks, survivability, and launch/recovery systems, including their electro-optical, infrared, and synthetic aperture radar sensors. Possible addition of UAVs to future maritime patrol aircraft. (Approximately 20 of the 68 Predators delivered to date have been lost, largely to operator error or enemy fire.)[255]
- Improvements in space-based radars and imagery systems.
- Procurement and improvement of Tomahawk cruise missile systems.

---

[253] Defense News, January 14-20, pp. 3, 28; Inside the Pentagon, January 31, 2001, p. 1.
[254] See Kim Burger, and Andrew Koch, "Afghanistan: the Key Lessons," Jane's Defense Weekly, January 2, 2001, pp. 20-27.
[255] Financial Times, January 21, 2002, p. 15.

- Convert at least four more C-130s into gunships, and make improvements to AC-130 special operations combat aircraft and other Special Forces variants of the C-130, including countermeasures for air defense. Improve video and infrared targeting and surveillance systems and fire-control capability, and refine the data-link systems between the AC-130 and Predator/Global Hawks that were rushed into deployment during the war.[256]
- Procurement and improvement of portable and theater-deployable intelligence and targeting systems.
- Improvements in communications, secure data links, displays, weapon dispensers, and precision weapons to make real time targeting and re-strike capabilities more effective.
- Acceleration of the Airborne Laser theater missile defense system.
- $63 million for upgrading NORAD computers and radars.
- Acceleration of hard target and underground facility penetration weapons. These would replace or enhance the 5,000-pound GBU-28, "bunker buster" bombs and AGM-130s used to attack hard and deeply buried targets during the Afghan War. The Department of Defense estimates that there are some 10,000 hard and deeply buried targets (HDBTs) in the world, that some 1,000 have critical strategic value, and that their number will advance steadily as improved tunneling equipment becomes available. Most are twenty meters or less underground.
  The US is examining ways to add hard target kill capabilities to its cruise missiles. There are unconfirmed reports that one such missile, the AGM-86D, was used during the war in Afghanistan. Other options include thermobaric weapons, the FMU-157 hard target smart fuse, and the BLU-116B advanced unitary penetrator warhead.[257]
- Acceleration of programs to develop unattended ground sensors and long-loiter collection platforms to characterize and monitor activities in facilities. Develop remote sensors for the penetration of caves and sheltered facilities.

It is interesting that virtually every item on this list has some relation to the US experience in Afghanistan, and, to some extent, responds to the lessons of either Afghanistan or the broader war on terrorism.

Defense Planning Guidance and Future Military Strategy

The Defense Planning Guidance (DPG) for 2004 to 2009 that was enacted in May also reflects the lessons that are being learned from the campaign in Afghanistan. Reflecting the Bush administration's shift towards a military doctrine of preemptive action against possible enemies, the DPG calls for accelerating force transformation efforts by developing and fielding a new generation of weapons that rely on advanced technology to enhance their effectiveness. Secretary Rumsfeld contends that by developing the weapons systems and forces needed to carry out preemptive action, the US will create a new form of forward deterrence that will make enemies think twice about striking the United States. Under the DPG, all branches of the military are ordered to develop capabilities necessary to execute rapid preemptive strikes against enemies.[258]

Under the guidelines established by the DPG, military spending will be focused on addressing five specific needs: countering and combating terrorism and the proliferation of

[256] Jane's Defense Weekly, January 2, 2001, p. 23
[257] Jane's Defense Weekly, January 2, 2001, pp 22-23.
[258] The Los Angeles Times, July 13, 2002.

weapons of mass destruction (WMD), enhancing ISR capabilities, developing new methods to protect against and wage cyber-warfare, enhancing space-based military capabilities, and further developing precision air strike capabilities. Specifically, the DPG calls for the development of a squadron of unmanned fighter jets by 2012, as well as the development, by 2009, of a "hypersonic" missile capable of traveling 600 nautical miles in fifteen minutes, thereby enabling it to destroy mobile targets before an enemy can reposition them.[259]

During the fighting in Afghanistan, the US has dropped a significant number of precision munitions. The DPG outlines a future "high-volume precision strike" capability characterized by the use of a large number of smaller, more accurate precision munitions that can be dropped on an enemy from a fleet of unmanned aircraft. Combined with other advances in military technology, these technologies are designed to enhance and further the military's capability to rapidly strike an enemy virtually anywhere in the world.[260]

As a result of the fighting in Afghanistan in which the US frequently targeted Al Qaeda cave complexes and bunkers, the DPG outlines the need to develop the ability to conduct "high-volume precision strikes" against an enemy, using laser and microwave-powered weapons. The DPG also acknowledges the need for development of a nuclear, "bunker-busting" bomb that will successfully destroy enemy compounds and supplies of WMD that are hidden far beneath the ground in hardened bunkers. Beyond advanced weapons capabilities, the DPG argues that if a doctrine of preemptive strikes is to be effective, new efforts must be made to improve intelligence capabilities, enabling the US to both become aware of a future threat and more accurately determine and target the strength and location of the enemy. Additionally, based on the experience in Afghanistan, the DPG calls for improving the execution of and training for joint operations.[261]

Shapers of the new DPG cite the successful use of Special Forces and precision air support in Afghanistan as reasons to further develop lighter, more stealthy capabilities. The risk remains, however, that in certain military situations, rapid response lightweight forces may not be appropriate. With the fighting continuing in Afghanistan, military planners must be careful not to make blanket generalizations based on what has thus far been a unique war. To do so would risk creating gaps in US military and force capabilities. Additionally, in its rush to embrace the military techniques utilized in Afghanistan, the DPG continues to ignore the political, economic, and social realities that remain as significant problems and roadblocks towards the successful completion of any military operation.[262]

Other DoD studies that are underway focus specifically on developing joint headquarters, the force capability needed to enact new strategies, and the C4ISR technologies needed to support the new strategy.[263]

Afghanistan and the Force Transformation Impact of the FY2003 Budget

The President's FY2003 budget request sets forth a list of additional "force transformation efforts." Those efforts include the following:

---

[259] The Los Angeles Times, July 13, 2002; The Los Angeles Times, July 14, 2002, p. M-1.
[260] The Los Angeles Times, July 13, 2002.
[261] The Los Angeles Times, July 13, 2002; Defense News, July 15, 2002, p.10.
[262] The Los Angeles Times, July 14, 2002, p. M-1.
[263] The Los Angeles Times, July 13, 2002; Defense News, July 15, 2002, p.10.

- Convert four Trident submarines to cruise missile carriers. It also seeks to capitalize on U.S. asymmetric advantages in developing new classes of satellites—including a space-based radar—and improving existing capabilities and hardening them against attack.

- Initiate development of the DD(X) surface warfare ship, a test bed for future Navy systems. Plans are to insert and test new stealth and propulsion technologies in the DD(X) and to test new manning programs. The budget request asks for $961 million for this effort.

- Spend $1 billion on the procurement and research of unmanned aerial vehicles. DoD wants to spend $154.1 million to buy and arm 22 Air Force Predator UAVs in the 2003 fiscal year. The Air Force has also allocated $170.8 million for three Global Hawk UAVs. There is another $100.7 million set aside to buy twelve Army Shadow UAVs.

- Purchase 70 more Global Hawks and associated equipment for the USAF (at a price of $1.55 billion) and 28 for the USN, which will deploy it in seven systems, each with four aircraft and support elements.[264]

- Accelerate funding of Global Hawk research and the Navy's Fire Scout UAV. The request also accelerates research in unmanned combat aerial vehicles. "These UCAVs are not just UAVs with weapons added…They are combat airplanes built from the ground up, just without pilots." The request also increased funding for unmanned underwater vehicles as well as the DARPA future UCAV program, with a deployment goal for the latter of 2015.

- Transform the old strategic nuclear Triad—land-based ICBMs, manned aircraft, and submarine-launched ballistic missiles. President Bush has announced plans to reduce offensive nuclear warheads from 6,000 to between 1,700 and 2,200. The new Triad is a scaled-down nuclear deterrent, a more deadly and responsive conventional deterrent, and missile defense.

- The overall procurement budget is set at about $72 billion. The Army is set for $13.8 billion, the Navy/Marine Corps for $24.9 billion, the Air Force for $27.3 billion, and $2.8 billion is allotted for defense wide buys. There is also $3.2 billion in the Defense Emergency Response Fund.

- Raise the budget for research, development, testing and evaluation to $53.9 billion in fiscal 2003, up from $48.4 billion this year. That would continue development of the Joint Strike Fighter and accelerate special operations capability. It also funds the restructured V-22 Osprey program.

- Increase science and technology funding by a billion dollars to $9.9 billion, or 2.7% of the DoD budget top line. The additional money would fund Army research on future combat systems, medical technology, and be used on other basic research. Navy funds would go to mine warfare and mine countermeasures, undersea systems, and basic research. The Air Force would look at directed energy, aircraft propulsion, and uses of space.

[264] Defense News, February 11-17, p. 3., pp. 3

  - Cancel older programs out of line with the transformation strategy, and shift almost $10 billion to other projects. Projects to be cancelled include the Navy DD-21 destroyer and Theater Area Missile Defense programs, the Air Force Peacekeeper missile program, and eighteen Army "legacy" programs. The services will retire some older systems faster, such as older F-14 Tomcats, Vietnam-era UH-1 helicopters, and the Navy's Spruance destroyer class.
- Provide $707 million for the Army's Future Combat System. In addition, the Army would buy 332 Interim Armored Vehicles and 5,631 M-16 rifles. The request budgets $910.2 million for continued development of the RAH-66 Comanche helicopter
- Fund two DDG-51 Arleigh Burke-class destroyers, a Virginia-class attack submarine, an LPD-17 amphibious transport dock ship, and a Lewis and Clark-class auxiliary dry cargo ship. The Navy would also buy 15 MH-60S helicopters, five E-2C Hawkeye aircraft and 44 F/A-18E/F Hornet fighters. The service will also continue with the EA-6B Prowler electronic surveillance and control craft modernization program.
- Fund twelve more C-17 cargo aircraft, one E-8C Joint Surveillance Target Attack Radar System aircraft, and 23 F-22 Raptor fighters. The budget also funds modernization programs for the B-2 Spirit bomber, the F-16 fighter-bomber, and the F-15E multi-mission fighter.

About half of these force transformation activities have some relation to the US experience in Afghanistan, although the reason behind including them in the budget request was usually to deal with US global requirements and had little to do with Afghanistan per se. The US does, however, now face the practical problem of shaping these programs to fully reflect the lessons of Afghanistan as part of its efforts to develop a coherent approach to force transformation. This is needed not only to redefine missions and war plans, but also to ensure that force transformation does not ignore the war's lessons regarding coalition warfare, interoperability, basing and forward presence requirements, and power projection.

Also, as part of the FY2003 budget, the Bush administration called for the creation of a $19.46 billion war reserve called the Defense Emergency Response Fund. Half of that total -- $10 billion -- was not designated for specific uses until July 2002, when the administration sent an amendment to the 2003 defense bill to Congress. The amendment designates $5.57 billion for follow-on operations, including the maintenance and repair costs for equipment currently deployed and preparing to be deployed as well as the cost of maintaining camps, airfields, and staging areas currently in use or in development for use in the war. Another $1.88 billion is to be used to replenish the military's supply of precision-guided and conventional munitions, including Hellfire missiles, as well as other bombs needed for continued operations.[265]

In preparing its FY2004 budget request, the DoD is said to be once again evaluating cutting force sizes in an effort to increase the amount of funds available for development of a new generation of weapon systems that it sees as central to transforming the armed forces. Personnel costs totaled roughly 25% of the department's FY2003 budget and exceeded the amount of money spent on the development and purchase of weapons. There are differing media reports as to the expected outcome of an internal personnel study being carried out by the DoD.

[265] Defense News.com, July 9, 2002.

Some sources indicate that the DoD is examining cutting one Army division, consisting of 20,000-25,000 soldiers, as well as 22,000 Navy personnel, 40,000 USAF personnel, and between 2,000 and 5,000 Marines. However, the head of the project, Chu, has denied this, stating that reports of troop cuts are "a misperception" of his work and that no troop cuts are currently planned. Observers indicate that while specific personnel cuts may not be called for, it is likely that several ongoing studies will re-examine efforts to reduce headquarters staffing, reduce the use of active-duty personnel for certain tasks which do not require their expertise, and whether or not certain services should discontinue groups of specialists and retrain them to perform other tasks.[266]

Beyond the significance of possible personnel cuts and retraining, the development of these reports indicates a continued desire on the part of the defense secretary to press forward with transformation plans that rely on advanced technology and weapons systems and on increased automation to perform tasks previously requiring personnel. Some officials and politicians, however, remain concerned that cutting force size in the midst of an ongoing conflict could stretch the military too thin, especially given the current and potential future demands that peacekeeping missions and future efforts to defeat Al Qaeda may place on US forces.[267]

Other Advances in Tactics and Technology

The US is conducting relevant and/or Afghan-war related efforts in a number of other areas, although it is impossible to describe most as the results of the lessons of the Afghan conflict. These activities include efforts to:[268]

- Pursue a broad goal of tightening the delay between real-time intelligence gathering and targeting at the shooter platform to no more than 10 minutes.
- Develop, as part of the FCS, a high-speed data network, integrated both vertically and horizontally, which is difficult to detect and intercept and which will provide secure command, control, and communications.[269]
- Improve relevant central planning and data transfer facilities, like the American Joint Analysis Center at RAF Molesworth in Cambridgeshire, England, and ensure that the US does not become over-dependent on regional facilities, like the Combined Air Operations Center (CAOC) in Saudi Arabia.[270]
- Decrease over the next 10 to 20 years, by 90%, the total manpower needed to run air operations centers, such as the CAOC in Saudi Arabia. While in Desert Storm approximately 2,000 personnel were required to handle air operations, during the conflict in Afghanistan roughly 1,500 personnel have coordinated operations. Air Force Chief of Staff General John Jumper would like to see that number decrease as advanced technology systems, offering significantly improved ISR capabilities, replace human operators. The eventual goal is to make AOCs smaller and more portable, possibly integrating them with Naval assets. This will allow for greater flexibility in conducting air operations in remote locations and decrease US

---

[266] Navy Times, July 22, 2002, p. 8.
[267] Baltimore Sun, July 10, 2002.
[268] For a broader summary of US force transformation activity, see Hans Binnendijk and Richard Kugler, "Adapting Forces to a New Era: Ten Transforming Concepts," Defense Horizons, Number 5, Center for Technology and National Security Policy, National Defense University, November 2001,
[269] Joseph N. Mait and Jon G. Grossman, "Relevance and Risk: The U.S. Army and Future Combat Systems," Defense Horizons, Center for Technology and National Security Policy, National Defense University, May 2002, p. 4.
[270] London Times, January 23, 2002; Los Angels Times, February 10, 2002.

dependence on other nations who must agree to host and allow the US to conduct operations from AOCs located within their borders.[271]

The first series of technology upgrades, Block 10, has been introduced at Prince Sultan Air Base in Saudi Arabia, and includes new networking capabilities for ISR. As a result of the conflict in Afghanistan, the USAF is examining accelerating he introduction of Block 20 technologies that will bring increased the automation of ISR capabilities, but may temporarily lead to increased personnel levels while new systems are linked. Additionally, efforts are being made to finalize a vision of Block 30 improvements, that will allow reductions in personnel levels at AOCs, while providing commanders a "knowledge wall" of battlefield data, including the location of friendly and enemy forces, weapons systems, and mobile targets. Along with the introduction of new systems, however, the USAF must constantly reevaluate its manpower requirements, as well as its AOC personnel training programs, which will need to address technology advances to allow for the most effective training of AOC personnel.[272]

- Accelerate the development of systems to detect and characterize biological and chemical weapons and attacks. One particularly promising area for targeting and Middle Eastern operations is the use of unattended ground sensors to provide capabilities that can monitor and characterize activity in various complexes and buildings, and possibly in underground facilities.
- Accelerate the development of sea-based wide area missile defenses, and the selection of a suitable replacement to the E-6B electronic warfare aircraft as part of a joint airborne electronics attack program.
- Develop and/or buy small diameter bombs, cockpit selectable fusing options, cockpit selectable "yield" for conventional weapons, and putting dual mode seekers (e.g. GPS and laser).
- Reexamine the value of weapons like the BLU-82 15,000-pound GSX-jellied slurry bomb in terms of hard target kill and psychological impact, and/or re-weaponize fuel-air explosive weapons like the BLU-72.
- Upgrade the communications, display, and munitions systems on B-52 and other US bombers, and US strike fighters, to improve the ability to retarget in mid-flight, and retarget and re-strike during the same mission.
- Improve some relevant subsystems on the RC-135V Rivet Joint signals intelligence aircraft, and U-2.[273]
- Improve the J-8 JSTARS targeting software. [274]
- Develop advanced targeting pods for existing aircraft, and built-in systems for the Joint Strike Fighter, with third generation forward-looking radar sensors and charge-coupled imagers capable of identifying individual weapons at a distance.
- Increase dissemination of electronic and intermediate range (IR) intelligence systems, and other surveillance platforms on various existing airborne platforms such as tankers.
- Replenish stocks of the GPS-guided Joint Direct Attack Munition (JDAM) – the $18,000 kit used to convert regular bombs into smart weapons. Approximately

[271] Inside the Air Force, July 5, 2002, p. 1.
[272] Inside the Air Force, July 5, 2002, p. 1.
[273] Jane's Defense Weekly, January 2, 2001, pp. 20-27.
[274] Jane's Defense Weekly, January 2, 2001, pp. 20-27.

4,6000 JDAMs were used out of a total inventory of 10,000 by December 2001. This is roughly 38% of the 12,000 weapons used as of that date.[275]

- Enhance use of the wind corrected munitions system (WMCD) which was used in the Afghan War to dispense combined effects munitions like the CBU-130 (a weapon with some 202 BLU-97/B cluster bombs) more accurately.
- Complete development of the sensor fused submunition (SFW), with a smart IR-homing capability for anti-armor and vehicle use, and develop improved submunitions with a fail safe option to prevent them from remaining live for extended periods.[276]
- Deploy a dedicated Multi-Sensor Command and Control (MC2A) aircraft by 2009 to support advanced closed loop missions, including ones by stealth aircraft, like the F-22 and B-2A, by 2009.[277]
- Improve three-dimensional mapping and imagery to improve the accuracy of GPS guided weapons and determine the proper angle of attack. [278]
- Begin development of an advanced, next-generation manned or unmanned bomber, capable of surviving extremely advanced developmental surface-to-air defenses like the Russian S-400 Triumf (SA-20).
- Revise the defense communications satellite and MILSTAR problem to handle far great communications densities, integrate information systems, and standardize on one set of terminals and downlink communication systems with different echelons of access and security.[279] Add lasercom data, and increase support to small scattered US and allied ground units for secure communications, imagery, and targeting data.
- Improve the integration and user friendliness of NRO and NSA data and systems used to support operations, targeting and ISR. [280]
- Modify existing CH-47D Chinook helicopters, adding refueling probes, additional weapons, and radar sensors, allowing them be used by SOF.[281]
- Streamline Navy helicopter fleet from six to two types of helicopters, increasing efficiency and decreasing maintenance costs.[282]

Given the fact that many of the relevant concepts and capabilities were first proposed during Vietnam, one must be careful to state that Afghanistan has probably done more to validate such activities that initiate them. It also seems far more realistic to call such progress part of the "evolution in military affairs" than part of a "revolution." This does not, however, make the end result, and the steady level of progress, any less important or impressive.

Mission Effectiveness versus Mission Intensity: The Duel Between Offense and Defense Continues

"Closing the loop" in near real time intelligence, targeting, precision strike, assessment and re-strike operations, may significantly improve mission effectiveness in ways that reduce the need for sheer force numbers and mission intensity. Not only did airpower substitute in many ways for heavy ground forces, armor, and artillery, precision air power and far better targeting almost certainly substituted for air power numbers. This indicates that deploying even more

[275] Bloomberg.com, January 22, 2002; Los Angeles Times, January 21, 2002, p. 1.
[276] Los Angeles Times, January 21, 2002, p. 1.
[277] Jane's Defense Weekly, January 2, 2001, pp. 20-27.
[278] Defense News, February 11-17, 2002, p. 28.
[279] Aviation Week and Space Technology, January 21, 2002, p. 27.
[280] Aviation Week and Space Technology, January 21, 2002, p. 27.
[281] Defense News, April 8-14, 2002, p. 4.
[282] Norfolk-Virginian Pilot, July 11, 2002.

effective real-time intelligence, targeting, and damage assessment systems can either make a given force steadily more effective in battle, or allow a reduction in force numbers and mission intensity. [283]

There are potential countermeasures to such advances, and ones that are all too familiar to most military forces in the Middle East. They include:

- A shift to more distributed forms of warfare, where terrorists and other opponents seek to present smaller and smaller targets.
- Hide or shield operations by more and more use of collocation with civilians.
- The constant relocation of operations makes it harder to target by function. Under such conditions, no advances in technical platforms will be able to compensate for a lack of reliable human intelligence and/or enhanced presence on the ground.
- Disperse assets before or during a conflict without any normal indicators of combat operations -- just as Iraq dispersed chemical weapons near unmanned air facilities during the Gulf War.
- Deploying distributed mixes of highly advance surface-to-air missiles, like the SA-10 or SA-11, shorter-range systems, sensors, and command and control links, to deny effective long-range air strike capabilities.
- Creating retaliatory forces with weapons of mass destruction that can be launched on warning or when under attack.

At the same time, there are limits to the adaptations that enemy forces can make in response to such US capabilities. Large masses of armor, artillery, and combat air assets can scarcely be distributed. Indeed, moving them may simply make them targets. Distributed forces are weaker forces, and hiding among civilians is a two edged sword that may alienate those you hide among. Buying very expensive and highly sophisticated air defense systems can also be countered with new targeting and strike technologies. Relying on CBRN weapons as a deterrent is only credible if they cannot be a target, and if it is clear that they will be used.

The Media and Psyops Battle

The US was not prepared to conduct a major information campaign at the start of the war. It was focused on US and Western media and perceptions, lacked area expert and linguists, and experts who understood both the sensitivities and attitudes of the factions in Afghanistan and the nations around it. While senior US officials did make every effort to make it clear the US was fighting a war against terrorism and not against Islam, the Department of Defense initially used words like “crusade” to describe the campaign and was unprepared for the hostile reaction in part of the Arab world because of the Second Intifada and US ties to Israel.,

Senior officials within the Office of the Secretary of Defense admitted on background several months after the start of the war that the US had done a much better job of dealing with the media and psychological dimensions of the war in the terms of the reaction of the US and Western media, but that it was slow to focus on the regional media and deal with psychological operations.

---

[283] For broader update on ISR and digital warfare, see Vernon Loeb and Thomas E. Ricks, “1s and 0s Replacing Bullets in the US Arsenal,” Washington Post, February 2,,2002, p. A-1.

[284] For the complete report from which these lessons were drawn, see: “Emerging Lessons, Insights, and Observations: Operation Enduring Freedom” prepared by the Center for Army Lessons Learned, Fort Leavenworth, Kansas.

[285] For the complete report from which these lessons were drawn, see: “Emerging Lessons, Insights, and Observations: Operation Enduring Freedom” prepared by the Center for Army Lessons Learned, Fort Leavenworth, Kansas.

It is not yet clear how the US can improve its efforts to deal with regional media, and strengthen and modernize its psyops capabilities, but this seems to be a significant lesson, and one the US must address with more skill in future wars.

As has been discussed earlier, there are fundamentals that must also be addressed. No amount of information management can be a substitute for better methods of minimizing civilian casualties and collateral damage. The same is true of peacekeeping and nation building. No amount of media can be a substitute for the presence of trained experts on the ground that can both work with local groups and factions and help US commanders understand local sensitivities and problems. Understanding and dealing with the local aspects of asymmetric warfare is critical to victory.

At the same time, information warfare has a global, regional, and theater-wide dimension and the US is still trying to find the proper tools to deal with this issue. The White House did create a an interagency Coalition Information Center or "war room" to try to handle the media and information dimension of the war. This office helped coordinate the US effort to shape the information aspects of the war and address Islamic and cultural sensitivities. It helped deal with issues like speech writing, the symbols used in US documents, US recognition of Islamic holidays, and visits with Islamic officials. While it could scarcely convert the critics and enemies of the US, and the details of its operation as still unclear, it does seem a model for future conflicts.[286] Creating such an office the moment a major conflict seems likely, staffing it with sufficiently senior personnel to reach policymakers, and providing both interagency representatives and regional experts may be a way of ensuring the US government engages the world and not simply domestic audiences and sympathetic allies.

The Department of Defense provided a wide range daily civilian and military briefings, and ensured that senior US officials and commanders kept in touch with the media. This had a powerful impact on domestic and Western perceptions of the fighting. In general, however, it had far less successful in communicating in regional terms. Its handling of issues like friendly and civilian casualties and collateral damage remained awkward -- in part because it simply did not have accurate data on a timely basis. It lacked the expertise to work well with regional media and support foreign broadcasts and media in local languages. In contrast, the Voice of America often seemed to lack suitable military expertise and information.

The Department of Defense's attempt to create an Office of Strategic Influence was an effort to create a new structure to manage this part of the conflict. However, its very title and the way in which it was proposed created the image of an "office of propaganda," fears it would be used to issue lies and carry out deception campaigns, and so much hostile reaction that the idea had to be abandoned.[287] In any case, it is far from clear how this office would have interacted with the role of the US State Department and activities like the Voice of America, or how it would have carried out systematic "information" or propaganda efforts to deal with the US and foreign media and public opinion.[288].The basic concept seems sound in many ways, but the execution will need to be far more careful and better planned.

Theater efforts to deal with these issues were more successful, and having Green Beret, Special Forces, and other US military personal on the ground to improve relations and win over the "minds and hearts" of the Afghan people proved to be critical.. The US used both psyops teams and specially trained military personnel in the Afghan countryside, to search for possible political problems, interact with local military leaders and village elders, and assist Afghan

---

[286] USA Today, December 19, 2001, p. 14; Baltimore Sun, January 23, 2002; Washington Times, January 23, 2002, p. 8.

[287] Washington Times, February 21, 2002, p. 4; Inside the Pentagon, February 21, 2002.

[288] Inside the Pentagon, February 12, 2002, p. 1; Washington Times, February 21, 2002, p. 4; Washington Post, February 21, 2002, p. 15; New York Times, February 21, 2002, p. 1..

civilians in distress. By interacting with the civilian population, these psyops teams helped create local support, and reduced support for Al Qaeda and the Taliban. Military and diplomatic efforts to reach out to the media, and deal with local problems in sensitivities, proved to be equally critical. In a number of cases, however, the US was badly short of personnel with the proper skills and area expertise and was slow to recognize that the political dimension of the battle was as critical as the tactical dimension.

The US military services also have a long tradition in talking about area expertise and information warfare and then of underfunding and undersizing such efforts, leaving them out of contingency plans, and making them poor career paths. Like intelligence analysts and HUMINT, talk is cheap and action is often lacking. Most of the discussion of "netcentric warfare" for example ignores the critical importance of having military area experts, Psyops experts, and trained teams to work with coalition partners. It focuses on the physical dimension of targeting and not on the personal, psychological, and local political realities of netcentric, asymmetric, and coalition warfare. Even military literature tends to focus on the "snake eating" aspects of special forces and field teams like the Green Berets that work in the field with coalition allies. The fact that many "snake eaters" have masters degrees and can act as linguists and intelligence officers is often ignored.

The fact remains, however, that Afghanistan is only one recent conflict that shows that no revolution in military affairs can be technology-based. Advances in technology, in areas like ISR and precision weapons, must be coupled not only to the integration of HUMINT and better intelligence analysis skills, but to political and psychological warfare, military advisory efforts, peacekeeping efforts, and civil-military operations at every level -- and especially at the theater and tactical level in the field. One only has to mention the possibility of new conflicts involving Iraq, the Taiwan Straits, and Korea, or involvement in peacekeeping in cases like the Second Intifada, to mention the point. It is also pointless to talk about tactical interoperability with allies in asymmetric warfare, and coalition warfare with allies from other cultures, without addressing such issues.

There will always be limits to what can be done. No amount of psyops and information warfare can persuade enemies, create nothing but friends, or disarm critics. At the same time, the US government as a whole, and the Department of Defense in particular, needs to give these areas of activity a higher priority, organize more formal and lasting structures to deal with these aspects of conflict, and create pools of the necessary mix of expertise that can be rapidly assembled and put into action the moment a conflict seems likely. Force transformation cannot be fully successful without such an effort, and asymmetric war will always present special challenges in winning the information battle.

It must also be said that war does involve deception, issuing half-truths, and sometimes lying. In blunt terms, it is better to lie than kill – whether this means the US and allied forces in combat, civilians, or the enemy. The problem is to strike the proper balance and only use such aspects of information warfare and tactics when they are really necessary. Finding this balance will never be easy and there will always be failures. However, creating a clear structure for handling such issues, and real expertise, is one way to ensure the US makes the best possible effort to use information warfare, deception, and psyops effectively and wisely.

US Marine Corps, the Osprey, the AV-8B, and Non-Littoral Warfare

The US Marine Corps faces a potential crisis over the reliability and cost of the Osprey, the readiness and effectiveness of the AV-8B, and the need to modernize many aspects of its transport helicopter, combat aviation, land systems, and amphibious systems. In spite of the increase in defense spending under the FY2003-FY2007 defense program, it is not clear that the US Marine Corps will get the funding it needs to be able to properly sustain air operations in a major regional contingency like Iraq. Some long overdue force improvements like adding the

LITENING 2 infrared targeting pods to the AV-8B will help in some ways – although not necessarily correct range, sustainability, and reliability problems.[289]

At the same time, its role in Afghanistan raises issues about the need to plan for more non-littoral operations, and to create real Special Forces capabilities with language, area, and advisory expertise. The success of US Army Special Forces, ranger units, and Marine Corps forces in Afghanistan may well show that that the so-called lessons of Task Force Hawk, and the failure to commit US Army light and attack helicopter forces in Kosovo, may not be lessons at all, but rather the result of political decisions and unique training and readiness problems. Certainly, the US Army's ability to airlift and drop more than 200 rangers and intelligence officers into Taliban controlled territory in Operation Rhino, on October 19, 2001, indicates that properly planned assault operations can be very effective. More importantly, the AH-64 emerged as a critical weapon and provided critical close air support in the fighting a Shah-e-Kot.[290]

There seems to be a good case for examining how force transformation, and a shift to longer-range strike and airmobile operations, should affect the future of the Marine Crops. In particular, it is not clear that present programs call for a proper level of modernization in attack helicopter and airmobile forces, and for improving their capability to conduct counterterrorism and asymmetric warfare missions –missions that seem likely to be a key aspect of future combat in the Middle East.

The Use of Carriers and Surface Ships as "bases" for Special Forces and Land Operations

As successful as USN carrier operations were during the fighting in Afghanistan, they were heavily dependent on USAF air assets based in Bahrain, Qatar, the UAE, and Oman. Even during the Gulf War, questions arose about the need for longer-range carrier strike attack aircraft that could carry more weapons, deliver them with maximum accuracy, avoid having to return with munitions loads or dump munitions, and reduce the burden on USAF refueling assets.

The Afghan campaign saw the use of the carrier Kitty Hawk as an afloat forward staging base (AFSB) for Special Forces assets. These included more than 1,000 personnel from the Navy SEALS, US Army and USAF special operations units, Army Green Berets, 160th Special Operations Aviation Regiment, and the rotary aircraft that accompany these forces such at the MH-60 Blackhawk, MH-47 Chinook, and MH-53 Pave Low.[291] This allowed better command and control of Special Forces operations, provided joint basing and command facilities, and allowed for better management of helicopter assets. At the same time, however, it reduced, by one, the number of carriers available for standard operations, decreased overall Navy strike capability, affected training schedules, and forced other carriers to compensate for its absence by extending their own deployments.[292]

The ability to transform a carrier into a mobile piece of sovereign US territory is useful, but the Navy is exploring options that will allow this to occur without affecting overall carrier strike capabilities and readiness. One option being considered is delaying the decommissioning of the USS Constellation and refitting it for specific use by Special Forces. Another option involves taking a large medium speed roll-on/roll-off ship and easily converting it to handle helicopters in addition to it current transport and cargo capabilities. A final option is to lease a commercial vessel and modify its hull to meet the necessary specifications for use as an AFSB.

It should be noted in this regard that far too little attention seems to be given to using the larger amphibious ships of the Marine Corps for this kind of mission, and possibly for relatively parochial service reasons. There will be many contingencies, however, in which the US will need its entire pool of active carriers without needing its entire pool of amphibious operations. A

---

[289] Defense News, February 18-24, 2002, p. 26.
[290] Army Times, March 25, 2002, p. 15; Inside the Army, March 18, 2002, p. 1.
[291] Washington Post, December 24, 2002, p, A8; New York Times, April 6, 2002.
[292] Defense Daily International, January 18, 2002; Defense Daily, July 9, 2002.

truly joint approach to this issue would examine the amphibious option. Moreover, using Marine Corps amphibious vessels in this regard might help push the Corps towards creating true Special Forces units and integrating their operations with the other services.

Regardless of which option is chosen, the use of carriers as AFSBs represents an evolution in the role of the carrier in military operations, and represents the military's desire to increase US power projection and strike capability across the globe, thereby complementing attempts to create a new forward deployed military deterrence against future enemies.[293]

The experiment in use of AFSBs is part of ongoing efforts by the Navy's Deep Blue Operations Group, which is charged with the task of examining and developing new weapons platforms and systems, sensors, and tactics to increase US capabilities against Al Qaeda and other unconventional opponents. Deep Blue is specifically analyzing how to further integrate SOF into future Navy combat missions and operations. Additionally, it is evaluating options for increasing the deployment time of destroyer and cruiser squadrons from 12 to 18 months.[294]

As part of its efforts to increase the role of Special Forces in Navy operations, the Navy has been working on developing and deploying mini-subs, designed to carry up to eight Seals with scuba and combat gear. Currently, Seals are deployed in open vessels where they are exposed to both the elements and possibly enemy fire. The mini-sub would solve this problem, providing Seals with a more secure transport environment. The development and deployment progress for the project, however, is far behind schedule and far over cost. While the mini-sub is light enough to be transported on a C-17 or C-5 aircraft, its development history is systematic of the hurdles that must be overcome as part of transforming the military.[295]

At the same time, Afghanistan illustrates a basic question about the cost-effectiveness of using nuclear submarines as platforms for small special operations teams. The argument for giving such expensive ships more mission capabilities if they are needed for other purposes may be a good one. The idea that such small mission elements, with such limited ability to cover the world, are a justification for maintaining and tailoring SSNs for this role seems to be more a desperate effort by the Navy's submariners to maintain the size and prestige of their part of the Navy than anything approaching a cost-effective use of funds.

True Jointness for the Navy and Marine Corps,

The fact that carriers were again so important to fighter attack missions illustrates the need of the Navy and Marine Corps to more forward as quickly as possible in implementing several of the nine capability goals the US Navy identified in its Seapower 21 study and the March 2002 draft of its force transformation plan: "Power and Access From The Sea."[296] These include goals with obvious relevance to Afghanistan like "persistent ISR," "Time-critical strike," "compressed deployment and employment time," "offensive information operations." At the same time, any reader of such Navy material has to conclude that it is still relatively parochial and seapower, rather than joint operations oriented.

The US Army and USAF are scarcely free of service parochialism, but the Navy's literature does not truly address flexibility and depth of operations, and the need to support the other services in joint warfare. This is particularly dangerous at a time when fleet size continues to shrink at a rate that could produce a battle fleet under 260 ships.[297] There are good reasons to question the sheer scale and rate of such downsizing, but the Navy's natural desire to preserve its most advanced ships and technological edge seems to have led it to turn its force transformation

---

[293] Defense Daily International, January 18, 2002; Defense Daily, July 9, 2002.
[294] Defense Daily, February 14, 2002.
[295] Bloomberg News, July 11, 2002.
[296] For a good summary, see Defense News, April 15, 2002, p. 8, and Jane's Defense Weekly, June 19, 2002, p. 3.
[297] For a broader discussion of these long-standing problems, see Scott C. Truver, "US Navy Programme Review," Jane's Defense Weekly, April 4, 2001, pp. 23-28. Also see Defense News, June 3, 2002, p.6.

exercise into a study of how it can best advance seapower, and not how it can best deal with joint warfare in cases like Afghanistan, Iraq, Korea, or a major attack across the Taiwan straits.

Carrier Operations and Aircraft Performance

At the same time, the US Navy and Marine Corps need to closely examine the real-world performance of the Joint Strike Fighter (JSF) in the light of this history, mission requirements in the Middle East, and possible reductions in the ability to base USAF tankers and other support aircraft forward in their present numbers. This does not seem likely to not mean radical changes in the role of the carrier per se, but it does mean rethinking these aspects of USN and USMC combat air operations and particularly the capabilities and associated systems of the Joint Strike Fighter to see how these aspects of sea-based strike capabilities can be improved over time.

Closing the loop in terms of the ability to improve targeting and the Navy and the Marine Corps' ability to use airpower to deliver precision guided munitions effectively and with maximum strategic and tactical impact, is of even more value in carrier than other air operations. There are finite limits to carrier sortie rates, both in terms of peak and sustained operations. The fact that three carriers sustained an average of under 70 attack sorties per day during the peak of the Afghan fighting is in some ways an illustration of this point.

So is the fact that the US Navy flew 4,900 of the 6,500 strike sorties flown between October 7 and December 17 2001, or 75% of the total – and struck at an estimated 2,000 mobile targets -- but delivered less than 30% of the ordnance. As of June 2002, this ratio remained largely the same, with the Navy estimating that while it flew 75% of the total sorties during the Afghan conflict, the USAF dropped 75% of the total ordnance from heavy bombers.[298]

The fact also remains that "antique" B-52s and B-1s flew 10% of the missions from Diego Garcia, but delivered 11,500 of the 17,500 weapons dropped – 65% of all weapons dropped and 89% of all weapons dropped by the USAF. While the bombers dropped the vast majority of the 6,500 500-pound dumb bombs used, they also dropped roughly half of all the guided munitions.[299] It is far from clear that bombers could operate as easily in a less permissive air defense environment, but the same is equally true of carrier strike aircraft.

Making individual sorties more effective is not only the most cost-effective way of dealing with these limitations, it also is the best way of dealing with the complications of a steadily increasing need to reduce civilian casualties and collateral damage, and deal with steadily more complex asymmetric wars.

Cheap Cruise Missiles and Naval Strike Power

While no precise unclassified data are yet available, it seem clear that GPS-guided cruise missiles were far more reliable and accurate than the TERCOM-radar mapping versions used in the Gulf War, They were also much easier and more flexible to target, and had much less predictable flight paths.

At the same time, the Afghan War again raises questions about the sheer cost of the cruise missile, and the best way to arm the kind of "arsenal ship" represented by the DDX. It is one of the ironies of the cruise missile that that the Navy needs more and more long-range strike assets, but that only a relatively few targets merit strike systems that cost nearly $1 million a round. The Navy seems to have a very high regional priority for cost-engineering some form of cruise missile that comes closer to the cost level of $200,000, or less that $1 million or more.

---

[298] Defense Daily, July 9, 2002, p. 3.

[299] Los Angeles Times, February 10, 2002; General Tommy Franks testimony to the Senate Armed Services on February 5, 2002. http://www.centcom.mil/news/transcripts/General%20Franks%20Testimony%205Feb02.htm.

Finding Adequate Electronic Warfare Assets

The continued delays in replacing the EA-6B, and what may be serious engine life problems, also illustrated the need to rethink carrier strike operations in terms of the ability to deliver Afghan-like persistence over target with suitable electronic warfare protection.

The problems with a limited force of EA-6Bs also raise general questions about the combined capability of the US Navy, USAF, and US Marine Corps to deploy enough electronic warfare assets. This already was a problem in Kosovo, and it is far from clear that current programs will succeed to the point where they ensure future a survivability in an air environment where nations like Iraq have dense surface-to-air missile assets in some areas, and other threats like Iran may acquire systems like the SA-400. The kind of permissive environment that allowed aircraft, like the AC-130, near freedom of operations over Afghanistan, may not exist in future contingencies in the Middle East.

The Marine Corps, the LHA-X, LHD-X, the Army, and Maritime Pre-positioning

Amphibious capability and maritime pre-positioning may become even more important in the future in the Middle East, if the US cannot establish the kind of support for coalition operations it needs from Egypt and the Gulf States. The US also faces a potential legal problem in terms of the British ability to maintain sovereignty over Diego Garcia. At the same time, as the Army lightens its power projection forces, this raises questions about the future force mix and role of Marine Corps forces, and the extent to which amphibious ships and pre-positioning ships should support a given mix of Marine Corps and Army forces.

These are scarcely issues that affect the Middle East alone, but any regional force planning exercise should examine force transformation options for changing the overall mix of Marine Corps and Army land forces, the possibility of standardization on some equipment like LAVs and light artillery, and new mixes of amphibious, and maritime pre-positioning capability that could be more effective than the present mix of capabilities in the Mediterranean, Indian Ocean, and the Gulf.

The increasingly awkward and artificial split between an expeditionary Marine Corps and any Army seeking to transform itself to perform the same mission also raises serious questions. The Marine Corps has historical reason to fear that transforming itself to perform sustained missions in addition to amphibious and littoral warfare can lead to “green eye shade” challenges to its independence and force size. There does seem to be an endless supply of accountants who ignore the unique and proven combat capabilities of the Corps on narrow cost-effectiveness grounds. Nevertheless, if the Army needs to go light and fast, Afghanistan indicates the Corps may need to go deeper, go land, and have more firepower and sustainment.

At the same time, it is again worth pointing out that the amphibious fleet and ships in the present Amphibious Readiness Groups can be used more flexibly. The use of the Kitty Hawk to provide a base for Army Special Forces is only one way of providing such a capability. The Key West agreement defining the present roles and missions of the services has no functional meaning. If Army forces can make better use of Navy platforms than the Marine Corps in any given contingency, they should do so. Conversely, the US should not pay to convert US Army units to light forces where the mission can be performed by a restructured set of Marine Corps forces with the capability to sustain operations for longer periods and heavier equipment. In any case, these factors need to be considered in designing both future amphibious ships and prepositioning ships like the Military Sealift Command’s Army Large Medium-speed Roll-on/roll-off (LMSR) logistic ship.

The raises the question of seeking a pattern of force transformation where maritime and land prepositioning can provide a more standardized equipment mix that can be used by both the Marine Corps and the Army. A capabilities-based force, emphasizing rapid expeditionary operations and lighter weapons, would be far more flexible if the US Army and Marine Corps

systematically became more interoperable and the ability to deal with multiple simultaneous contingencies and ones in unexpected areas would be much greater.

The US force transformation exercises seem to have avoided asking any fundamental questions about the overall Army-Marine Corps force mix. Afghanistan indicates that these questions need to be asked.

US Army and Future Combat System

Afghanistan also raises broader questions about the US Army force mix. While the Afghan War is being used to justify the US Army's effort to transform its present armored and mechanized power projection forces into forces with much lighter armor and artillery and which can be moved and deployed much more rapidly, it is far from clear that the Afghan conflict really provides reason for this action, or that even an increased level of defense spending will allow the US Army to accomplish such a force transformation on a timely basis.[300]

The FY 2003 budget request encourages some important programs and cancels others. It calls for procurement of 332 Interim Armored Vehicles ($935.9 million) and the creation of a new six-brigade force based upon 20-ton wheeled vehicles. This plan calls for one brigade is to be able to deploy anywhere in the world by C-130 within four days, and a four brigade division within 30 days. [301]

Additionally, the Army will spend $717 million on the development of a Future Combat System to create a far more advanced rapidly deployable set of Army ground forces – evidently to be deployed at some point well beyond 2010.[302] Other improvements are planned occur in areas like unmanned ground combat vehicles and medium tactical vehicles, although the experience in Afghanistan indicates that much of the planned fleet may still be too heavy, too large, and lack the needed all-terrain mobility for a similar contingency.[303]

To help fund these changes, the Army is canceling some 18 programs during FY2003-FY2006 because it says they do not fit into the future objective force.[305] Some are heavy systems like the Crusader that do not affect the Army's ability to meet the need for more effective light forces demonstrated in Afghanistan. About half, however, are light systems or programs like the Battlefield Combat Identification System that do seem to mesh with the lessons of the conflict.

At the same time, the Army will still spend a great deal on older, heavy, legacy systems.[306] It also does not seem to have clear plans for Army aviation: No new attack helicopter is in sight, and the endless "development" of the Comanche continues, although improvements will be made to the AH-64A/D attack helicopters The integration of UAVs and UCAVs has been encouraged by the Army's experience in Afghanistan but it is far from having a meaningful force plan to make use of such systems.

The key question is whether the Army can actually resolve its internal debates and debates with the Office of the Secretary of Defense, and manage a smooth transition to more

---

[300] It is impossible to do more than touch upon these issues in this paper. For more details, see the various reports on the Army's force transformation activities in the Association of the US Army web page, www.ausa.org, and the official US Army reporting in the Army web page at www.army.mil.

[301] Brtain is also developing lighter platforms like the Future Command and Liasion Vehicle and Future Rapid Effects System. Defense News, June 17, 2002, p. 18.

[302]

[303] See Defense News, March 4, 2002, pp. 7 and 13, May 20, 2002, p. 26, and Jane's International Defense Review, April 22002, p. 21.

[304] Defense News, February 11-17, 2002, p. 28.

[305] Defense News, February 18-24, 2002, p. 6,

[306] Defense News, February 11-17, 2002, p. 28.

mobile forces and lighter equipment.[307] It could well end up with a Future Combat System that may desirable but takes far too long to actual deploy, and by remaining dependent on an awkward mix of legacy and of interim systems many of which would be too heavy and others of which would by light but too large to produce any saving in air or sealift because they would be cubic, rather than weight limited. For example, as of March 2002, eight of the 10 new "light" Stryker armored vehicles were still too heavy for airlift in a C-130.[308]

Special, Light, and Air Assault Forces

In contrast, US Army Special Forces and ranger units illustrate that the so-called lessons of Task Force Hawk, and the failure to commit US Army light and attack helicopter forces in Kosovo, are not be lessons at all, but rather the result of political decisions and unique training and readiness problems.

Certainly, the101st Airborne and other "light" and highly mobile US and allied ground troops had consistent success wherever they were engaged, even under near worst case conditions like the opening engagements in Operation Anaconda. Attack helicopters proved to be a rapidly deployable, survivable, and highly effective asset.

The role of the AC-130 has had so much public exposure that it scarcely needs further analysis. Special Forces have been of critical importance, however, in a number of other areas. Two small Special Forces A Teams played a critical role in allowing the US to work with friendly Afghans and in illuminating targets with an effectiveness that no amount of ISR technology could possibly have equaled.[309] Larger elements of US and allied Special Forces have played a continuing role in operating against Al Qaeda and the Taliban in areas where the local Afghans are potentially hostile than other forces could not play without massive additional manpower and support, as well as in the border area of Pakistan and several Central Asian states.[310]

As has been noted earlier, Special Forces provided a critical element of coalition warfare in training Afghan forces and in providing local intelligence. They also, however, played an equally critical role in keeping Afghan factions apart and in dealing with local rivalries and tensions. Nothing could have avoided serious problems in this regard, but the end result might have been disastrous if Special Forces had not mediated and kept various factions apart.

Even US Army's ability to airlift and drop more than 200 rangers and intelligence officers into Taliban controlled territory in Operation Rhino on October 19, 2001 indicates that properly airborne planned operations might be effective, although this was more an exercise in psychological warfare and military "showboating" than a serious military operation.

There seems to be a good case for examining the expansion of special and ranger forces, modernizing their equipment, and tailoring attack helicopter and airmobile forces for counterterrorism and asymmetric warfare missions.

Certainly, the fact that the combined impact of Afghanistan and a small operation in the Philippines seriously depleted the total inventory of MH-60Ksasnd MH-47Es due to minimal combat losses and accidents indicates that the US had badly undercapitalized its Special Forces before the war began.[311] Delays in upgrading the MH-47s and MH-53 Pave Lows may well have

---

[307] For an interesting summary of the internal and external debate, see Peter J. Boyer, "A Different War," The New Yorker, July 1, 2002, pp. 54-67.

[308] Defense News, March 2002, p. 7.

[309] Washington Post, February 20, 2002, p. A1, May 19, 2002, p. A16

[310] European Stars and Stripes. June 19, 2002; USA Today, April 29, 2002, p. 8; Newsweek, May 13, 2002; Washington Post, December 11, 2001, p. A1, May 5, 2002, p.A1; Los Angeles Times, February 24, 2002, p. 1, March 27, 2002, p.1, May 5, 2002, p. A1; New York Times, May 6, 2002; Jane's Defense Weekly, October 17, 2002, pp. 22-23; Air Force Times, April 8, 2002, p. 14; Boston Globe, March 31, 2002, p. 1; New York Times, March 31, 2002, p.A13; Washington Times, July 12, 2002, p.1..

[311] Aviation Week & Space Technology, March 18, 2002, pp. 28-29.

contributed to these problems, although these were partly the result of the long delays in delivering the CV-22. There were also lesser equipment problems like the fact the two Special Forces teams that played a critical role in targeting early in the conflict initially had laser illuminators but not the equipment needed to provide accurate GPS coordinates for targeting purposes.[312]

While press account are uncertain, the US Special Forces Command (SOCOM) has asked for major new resources as the result of events in Afghanistan and the rest of the war of terrorism. It sought a budget of $4.89 billion in FY2003, some $890 million more than in FY2002, and projected a rise to nearly $6 billion in FY2003. It nearly doubled its procurement request from $400.5 million to $776.8 million and raised its RDT&E request from $392 million to $431 million. Largely as a result of Afghanistan, the US Army began examining requirements for:[313]

- Lightweight counter mortar radars that two soldiers can carry in parts and assemble in 30 minutes.
- Collapsible UAVs that are man or small vehicle portable and are suitable for both rural and urban warfare.
- Better, smaller, lighter, longer-range, and air droppable laser designators.
- Improved communications for direct field communications in cities and rough terrain like mountains.
- Better and dedicated designs for light all terrain vehicles. Special Forces had to buy Toyota trucks and use recreational four-wheeled ATVs made by the Polaris Corporation. The HMMWV proved to be too large for local roads and terrain and made the user a highly visible target.
- Lighter, smaller, and more enduring batteries.

There are, of course, many other tactical, technical, and equipment lessons and it is too early to do more than note that the US cannot afford to learn such lessons and then act upon them.

There also are several issue regarding the future role of Special Forces that the war in Afghanistan indicates need urgent examination. While some of the issues involved do not need public discussion, there seems to be an equal case for reexamining the role that CIA operations should play, and the interface between the CIA and Special Forces as part of this examination.

The same is true of how Special Forces are commanded and integrated into policy. At present, there seems to be a gap between the service commands, military command of SOF, role of the civilians in SOLIC, and the policy offices under the Secretary. In practice, it is clear that Special Forces are primarily a tool for joint warfare, but the issue of exactly who is in charge at the top is one that needs to be resolved in a way that puts someone clearly in charge. The last thing on earth that the Special Forces need is either an overcomplicated chain of command or one that is over-politicized.

As has been noted earlier, the role of the Marine Corps in Special Forces is also an issue. The Marine Corps had decided to create a specialized combat unit, similar to the Army's Ranger's and Green Berets, even before the fighting in Afghanistan, which was to be committed to the US Special Operations Command. The first 42 Marines were sent to SOCOM in January 2002.[315]

While the Corps' post-Afghan Special Forces objectives have not been established, a main area of focus will be enhancing the Corp's high-speed special operations and

[312] Washington Post, February 20, 2002, p. A1; Aviation Week & Space Technology, March 18, 2002, pp. 28-29.
[313] Defense News, February 11, 2002, p. 8.
[314] Defense News, June 17-23, 2002, p. 40.
[315] Defense News, June 17-23, 2002, p. 40

reconnaissance abilities. Given the level of joint operations with Army and Navy Special Forces that the Marine Corps has been involved in during the fighting in Afghanistan, the creation of a Marine special operations unit that can more closely interact with other Special Forces is a natural next step that will allow for better execution of future joint missions while decreasing the communications and information problems that can sometimes occur in an operations involving forces from multiple services.[316]

Global, Regional, and Theater Command

The Pentagon is already examining ways to create some form of global command is needed to coordinate the new battle against terrorism and asymmetric warfare, and better ways to solve the complex problem of tying intelligence, coalition warfare, the political-military aspects of such wars, and the need to coordinate new forms of air ground operations. Secretary Rumsfeld has such an effort underway.

Afghanistan shows, however, that creating an effective regional and in-theater command structure is equally important and a critical factor in making optimal use of ISR and precision weapons assets. In retrospect, modern communications and ISR assets did not allow for effective command from remote locations, and factors as simple as the differences in time zones and a lack of satellite bandwidth became problems. At the same time, creating large, fixed facilities like the CAOC in Saudi Arabia created political and access problems and meant using facilities tailored for other purposes. This argues for a more forward and expeditionary approach to regional and theater command. It also argues for sea-based joint – rather than Navy-Marine Corps – command capabilities.

At the same time, much of the US combat experience in Afghanistan argues for joint, rather than service, commands at every level, and for using ISR and C^4I/BM assets to improve support to the theater and tactical commanders rather than as a means to try to mange the war from Washington or a distant regional command. Technology creates a natural and destructive tendency to try to micromanage from the rear, and add or centralize layers of decision-making and increase the time for decision making. Effective netcentric and near-real time warfare, however, requires virtually the opposite use of technology. Line of sight command may be obsolete, but forward and on-the-scene command is not. The National Command Authority that manages least, manages best, as well as produces a major saving in the communication burden and sheer bandwidth.

Counter-proliferation and Preemption

The problem of CBRN warfare has already been addressed in terms of targeting and weapons requirements. The discovery of a large-scale Al Qaeda effort to develop CBRN weapons – as well as ongoing proliferation in nations like Iran, Iraq, and North Korea – illustrates the steadily growing importance of offensive counter-proliferation capabilities, and preemption or immediate, time-urgent attack the moment combat begins.

Preemption and large-scale initial destruction is not something that can be advocating carelessly, or lead to the use of weapons without concern for political sensitivities, civilian casualties, or collateral damage. Proliferation and CBRN threats do, however, fundamentally change the risks and values of war. Proliferators give their enemies the right to preemption and first strikes simply by proliferating, and the axiom that the only way to go to war with the US is with the possession of nuclear weapons is one the US must aggressively counter, regardless of whether a nation or terrorist movement is involved.

Waiting for enemy assets to be dispersed can also create an impossible tactical burden. It is worth noting in this regard, that the US flew some 2,400 sorties searching for and trying to strike at dispersed Iraqi Scud missiles during the Gulf War, On some 42 occasions, US aircraft

[316] Defense News, June 17-23, 2002, p. 40.

spotted a launch plume and made eight actual attacks. Nevertheless, neither Coalition airpower nor Special Forces damaged a single Scud, and Iraq was able to fire some 88 Scuds against Israel and Saudi Arabia.[317]

The threat of biological warfare is particularly serious, and the US and its allies needs to rethink internal security planning, public health response, and defense efforts to deal with the broad range of CBRN threats. The treatment of hoof and mouth disease and "mad cow" disease is almost a model of how not to deal with such cooperation, and a warning of how much more effort is needed to deal with both time urgent tactical and the broad spectrum of global threats.

That said, it is one thing to have a doctrine and plans, and quite another to have a capability. Any form of attack on CBRN and their delivery system assets must involve meaningful targeting capability, the proper weapons and destructive means, and careful consideration of civilian and could not carry out a successful attack on Iraq's CBRN assets at either the time of the Gulf War or Desert Fox. It had no idea of what to target at the beginning of the Afghan conflict.

Moreover, the very prospect of such attacks pushes other countries to create launch-on-warning (LOW) and launch-under-attack (LUA) capabilities in a "use or lose" environment as well as organize and preposition assets for terrorist and unconventional attacks.

Rethinking Arms and Export Controls:

Much of the debate over the CW, ABM Treaty, BWC, and CTTBT has avoided coming to grips, in detail, with the threat of asymmetric attacks and terrorism, and has a history of focusing on large-scale conventional war fighting. The same has been true of export controls. A joint effort at comprehensive review of how to change arms control agreements and export controls -- looking at the CBRN and advanced technology threat as a whole – is needed to develop a more effective common strategy.

At the same time, it is a dangerous illusion to assume that any revision in either export controls or arms control agreements can deal with the problem of chemical, biological, and possibly nuclear proliferation. The literature on this subject is more well-meaning than technically competent, and there seems to be little effort to carry out realistic net technical assessments of how rapidly the dissemination of biotechnology, pharmaceutical, food processing, and other related skills and equipment – coupled to advances in areas like genetic engineering – will allow most governments in the developing world and many terrorists to create biological weapons with little or no warning and with nuclear levels of lethality. The same is true of somewhat similar trends affecting the ability to make third and fourth generation chemical weapons and assemble a nuclear device if fissile material can be obtained from the outside. Similarly, covert delivery means are far easier to create than ballistic missiles, and may often by a far more desirable method of delivery.

The efforts of Al Qaeda may have been as badly organized as those of Aum Shin Rykio, but they are a warning and not a guarantee for the future. Indigenous proliferation, possibly under breakout conditions, with limited or no warning, is becoming a global reality.

Other Lessons and Issues

There are several other areas where lessons, or at least important issues, seem to be emerging or to have acquired higher priority because of the US experience in Afghanistan.

Additional Army Lessons

In addition to the lessons previously mentioned, the following lessons can be drawn from the Army's experiences during the fighting in Afghanistan:[318]

---

[317] Barry Watts, "Effects and Effectiveness," Gulf War Air Power Survey, Volume II, Washington, GPO, 1993, p. 335; Christopher J. Bowie, "Destroying Mobile Ground Targets in an Anti-Access Environment," Northrop Grumman Analysis Center Paper, Washington, December 2001, p. 3.

Communications

- Need for smaller, lighter, higher-bandwidth communications systems that are easily transportable.
- Afghanistan has shown that mountainous terrain can interfere with standard FM, line-of-sight communications. This problem must be resolved, or alternative advanced communications systems must be developed.
- Need for more frequent updates of "operational picture," so that ISR data can be of maximum benefit.
- Developing interoperability between digital communications systems must be priority.
- With more access to more information also come additional problems, both in the field and at the command center.
-

Operational Intelligence

- Understanding the terrain and the battlefield layout continues to be of importance in anticipating future enemy actions.
- New, more mobile reconnaissance forces must be developed to assist in verifying intelligence from other sources.
- UAVs can be used not only for intelligence, but also to fulfill command and control needs.
-

Fire Support

- In certain situations, air support for ground operations was not very effective. Lightweight, more mobile artillery could respond more rapidly and more effectively.
- Due to the high altitude, AH-64 Apache helicopters could not hover for lengthy periods of time and were forced to fire while moving, requiring coordination between troops on the ground the helicopter crew.

Engineer Operations

- More training is needed to increase the speed of runway and equipment repairs.
- Smaller, more deployable Bobcats, forklifts, compactors, and concrete saws are necessary to decrease construction time.
-

Mine Operations

- Norwegian flail, US MCAP, and mine-sniffing dogs were all effective in detecting mines; however, US miniflail was not effective.
- Anti-mine centers must be established more rapidly.
- Battlefield debris and natural terrain severely reduced effectiveness of mine detectors.
-

---

[318] Based in part on a summary in Defense News, July 9, 2002. For the complete report from which these lessons were drawn, see: "Emerging Lessons, Insights, and Observations: Operation Enduring Freedom" prepared by the Center for Army Lessons Learned, Fort Leavenworth, Kansas.

Force Protection

- The unconventional nature of the conflict, including the divided battlefield, geographic separation, and undefined battle-zone made force protection more difficult.
- Additional equipment needed for force protection includes: wide-angle, handheld and vehicle-mounted thermal imagers; metal and explosive detectors; prisoner-of-war detainee equipment; and mirrors.

Ammunition

- - The M855, 5.56mm ammunition, which is used in the M16, M4, and M855 Squad Automatic Weapon, may, according to reports from the field in Afghanistan, be lacking in stopping power. There have reportedly been instances in which enemy soldiers have been struck by US rounds but kept proceeding. A US Army official who is a product manager for small arms has characterized most of the reports as being anecdotal and unsubstantiated, however, the Army is taking the issue seriously enough that it is doing a study to investigate the possibility of "overpenetration" by the M855 rounds.
- *All three sentences can be attributed to Defense Week, September 3, 2002.
-

Firearms Performance

- - A Central Command survey of soldiers who served in Afghanistan indicated some deficiencies in firearms performance. Dust was a particular problem. 54 percent of soldiers asked about the performance of the Squad Automatic Weapon and a similar percentage of respondents asked about the M9 handgun said that cleaning and maintenance were problems. Additionally, the M4 had a high percentage of malfunction. Twenty percent of soldiers asked about the M4 experienced double feeding as a problem and 15 percent experienced ammunition feeding jams.
- *All sentences can be attributed to Defense Week, September 3, 2002.

Additional Navy Lessons

There are also additional lessons that the US Navy has concluded that it learned from its involvement in Operation Enduring Freedom. These lesson include:[319]

Intelligence, Surveillance, and Reconnaissance (ISR)

- More connectivity to ISR data for personnel charged with firing weapons.
- Develop ways to transfer P-3 imagery to distant receivers.
- Acquisition and deployment of additional P-3 sensor kits.
- Acquisition and deployment of additional fleet-based tactical UAVs.
-

Operations

- Mainstreaming and standardization of maritime intercept operations in training and operations.
- Closer integration between Navy Special Forces assets and Navy conventional forces.
- Standardization of combat search-and-rescue operations.
- Standardization and improvement of close air support procedures and operations.
- Additional improvements in the areas of interoperability with other services and coalition partners.

---

[319] Based in part on a summary in Defense News, July 9, 2002.

-

Sustainability Needs

- Increase US CENTCOM stockpiles of munitions, especially precision guided type.
- Decrease time needed for reloading Tomahawk cruise missile batteries on ships.
- Improved system of tracking and distributing spare parts.

Teknologiske utviklingstrekk og organisatoriske utfordringer

Morten Karlsen

Innledning

Jeg vil dele med dere en historie som jeg leste i en høring fra Forsvarsdepartementet[1]. Historien fant sted under den amerikanske borgerkrigen. Ved "The Battle of the Wilderness" i 1864 ble nordstatsgeneralen John Sedgwick advart av sine undergitte mot å bevege seg fritt og åpenlyst for fiendens håndvåpenild. Generalen skal ha ignorert advarslene – og noe arrogant ha svart: *"Nonsense, they couldnt hit an elephant at this dist…"*.

Sedgwick rakk aldri å fullføre setningen før han ble truffet og drept. Generalen hadde åpenbart ikke fått med seg den våpenteknologiske utviklingen som hadde funnet sted siden krigens utbrudd. Og det skulle bli hans bane.

For denne forsamling er den nære sammenhengen som eksisterer mellom luftmakt og teknologi åpenbar. Flyvåpnet ble grunnlagt som egen våpengren nettopp i troen på hva som kunne realiseres med ny teknologi. I visse kretser ble det akseptert at flyet ga direkte tilgang til de mest sentrale deler av fiendens samfunnsstruktur. Dermed mente man det var mulig å fri seg fra den utmattende stillingskrigen som hadde preget den første verdenskrig.

I ettertid kan man enes om at denne tiltroen til ny teknologi var uten rot i virkeligheten. Det har også vært luftmaktens store problem opp gjennom årene. Vår våpengren har vært preget av et misforhold mellom den rådende oppfatning om bruken av maktmiddelet og den faktiske teknologiske kapasiteten. Nå skal ikke jeg spekulere i hva det kan skyldes – jeg nøyer meg med å vise til Winston Churchill[2]:

"Air power is the most difficult of military force to measure or even to express in precise terms. The problem is compounded by the fact that aviation tends to attract adventurous souls, physically adept, mentally alert and pragmatically rather than philosophically inclined".

Jeg vil ikke stå her å betvile teknologiens betydning. Innen år 2020 har den gitt oss muligheter vi kan drømme om i dag. Men i kjølvannet av Gulfkrigen har det bredt seg en oppfatning om at de mest optimistiske visjoner for bruk av luftmakt synes realiserbare. Vi skal tilsynelatende være vitne til en "Revolution in Military Affairs" eller "RMA". Og det er mye takket være innføring av ny teknologi. Paradoksalt nok har RMA forestillingen sitt utspring fra sovjetisk hold[3]. De så på fremveksten av de amerikanske konvensjonelle presisjonsvåpnene på 1970-tallet som en Military Technical Revolution. Med tanke på den gamle sovjetstatens nære forhold til revolusjonsbegrepet bør man ikke være overrasket av at de tok i bruk slike uttrykk.
Men hva med oss, bør ikke vi være mer nyansert enn som så? Jeg stiller derfor følgende spørsmål – hva kan teknologiutviklingen innebære for Luftforsvaret frem mot år 2020? Vil fremtiden kun avhenge av om man foretar de rette teknologiske valgene eller ei, eller må vi forvente at teknologien ikke nødvendigvis vil være løsningen på våre fremtidige militære problem?

---

[1] Høring fra Forsvarsdepartementet. Unntatt offentlighet.
[2] Sitat fra AAP1000 Royal Australian Air Force, *Fundamentals of Australian Aerospace Power*, 4th ed., s. 121.
[3] Michael Ignatieff, Virtual War. Kosovo and Beyond. New York: Henry Holt & Company, 2000, s. 164.

Hvorfor vil teknologien spille en viktig rolle i fremtiden

Perioden frem til 2020 vil bli preget av en materiellmessig modernisering og fornyelse uten sidestykke i Luftforsvarets historie. Dette skyldes flere forhold. For det første er sentrale deler av vår materiellpark moden for utskiftning om noen få år. Dessuten indikerer vårt nye nasjonale ambisjonsnivå og vår alliansetilknytning at det ikke finnes noe alternativ til et høyteknologisk forsvar. Vi er i ferd med å ta steget *"fra invasjonsforsvar til innsatsforsvar"*[4]. Og uten topp moderne utrustede enheter vil ikke Norge kunne bidra effektivt i internasjonale operasjoner.

Det er en kjensgjerning at det eksisterer et betydelig militært teknologigap mellom USA og de andre NATO landene. Det har vært uttrykt sterk bekymring for at teknologigapet vil hemme alliansen fra effektivt samvirke i multinasjonale operasjoner. NATOs generalsekretær har advart mot at utviklingen kan true alliansens eksistensgrunnlag i et langsiktig perspektiv. Og USA har gitt klart uttrykk for at de europeiske landene må omforme og fornye sine militære styrker dersom det skal være i deres interesse å delta i alliansen. Men hva betyr så det?

Som en kollega så fortreffelig har påpekt kan det bety at det ikke er vår dyktighet som vil være avgjørende for vår fremtidige alliansedeltakelse, men hva vi faktisk kan stille med av utstyr. Har vi ikke det rette materiellet kan vi bli satt på sidelinjen, uansett hvor gode operative kvaliteter og ferdigheter vi kan vise til. Her finnes flere fallgruber. La meg ta et eksempel. Det er bestemt at Forsvaret skal anskaffe nye UAVer innen 2008. Avgjørelsen synes å være tatt uten at man vet hvilke behov de faktisk skal fylle – eller om det er behov for dem i det hele tatt. UAVene er med andre ord viktig som et symbol. Avgjørelsen symboliserer en villighet – mens hva vi faktisk skal bruke dem til synes å komme i andre rekke.

Fremtidige teknologiske utviklingstrekk

På et seminar som dette bør det sies noe om hvilke teknologiske utviklingstrekk vi kan se for oss i de kommende årene. La det med en gang være sagt – jeg tror ikke vi kan forvente en rekke nye produkter vi ikke har en viss kjennskap til i dag. Utviklingen vil i hovedsak skje i forlengelsen av dagens eksisterende systemer og komponenter. For det første kan man slå fast at automatiseringen vil fortsette med uforminsket styrke og omfang. Økt satsning på ubemannede systemer og autonome våpen er klare eksempler i så henseende. I løpet av noen få år har det blitt utviklet eller lansert en rekke typer UAVer med varierende størrelse, rekkevidde og høydedekning. Selv om de fleste er tenkt brukt i rekognoserings- og overvåkningsrollen, har de første ubemannede fartøyer vært i aksjon i kamprollen. Det arbeides også intensivt med å utvikle rene ubemannede kampfly.

Utviklingen av UAVer bygger på forestillingen om at det er mulig å oppnå ytelse og effekt som overgår bemannede plattformer. Dessuten kan dette gjøres med lavere kostnader – og uten at det er fare for tap av egne styrker. Ettersom tap av egne menneskeliv blir en ikke-faktor, kan systemene brukes aktivt i såkalte høyrisiko operasjoner. UAVene har det fortrinn at de kan gis en mer fordelaktig utforming enn bemannede plattformer. Siden man slipper å ta hensyn til mennesket kan plattformene gjøres mindre, lettere og dermed mer aerodynamisk korrekt. Og selvfølgelig mer lavsignaturvennlig.

Innen våpenteknologi har verden de siste 10 – 15 årene fått demonstrert økt evne til å utføre avstandsleverte presise angrep. Med unntak av kryssermissilene har dette i hovedsak blitt gjort mulig ved bruk av signaturbaserte hjelpemidler som laser og IR. Erfaringer har vist at disse midlene har sine begrensninger. De er nemlig operatør- og væravhengige. Det er derfor rimelig å

[4] Fra Strategi for Luftforsvaret 2003-2008, Luftforsvarets strategiske kart "boble" L2.

anta at posisjonsbaserte våpen i form av GPS–styring vil øke i omfang. Det skyldes at GPS styringen for mange formål har tilstrekkelig nøyaktighet, har allværskapasitet og kan opptre autonomt. Våpnene kan dessuten utrustes med egne signaturbaserte styringsmidler som kan aktiviseres i sluttfasen av baneflukten for å forbedre treffsikkerheten ytterligere. Det er også mulig å modifisere såkalte dumme bomber med GPS enheter. Dermed kan man på en enkel og billig måte produsere smarte våpen.

Man kan også forvente økt satsning på høyenergivåpen som laser og mikrobølge våpen. Slike våpen har teoretisk sett et unikt potensiale – de kan gi vår forståelse av begrepet reaksjonsevne et nytt innhold. Våpnene baserer seg på det elektromagnetiske spekter og kan levere sin effekt med lystes hastighet. Dermed vil det ikke være noen tidsforsinkelse mellom avfyring og treffpunkt. Dessuten har man å gjøre med en presis og i utgangspunktet diskriminerende ildkraft – ofte uten noen form for forvarsel.

Det må nevnes at det er en viss usikkerhet knyttet til utviklingen av slike våpen, da spesielt laser. Skulle man lykkes med utviklingsarbeidet kan våpnene få et bredt anvendelsesområde. Airborne Laser Programmet har pågått en stund og er tenkt brukt mot fly, ballistiske missiler og trolig kryssermissiler. Dessuten arbeides det med å utvikle laservåpen til fly som JSF med kapasitet mot visse typer bakkemål. Det er også konkrete planer om å ta i inkludere mikrobølgevåpen i fremtidens kampfly til bruk mot ulike elektroniske komponenter, noder og knutepunkt.

Fremtidens plattformer, våpen og sensorer vil også bli betydelig mindre i størrelse, men uten at det går på bekostning av kvalitet eller ytelsesevne. Man ser for seg 10-15 cm store UAVer med vekt på et par hundre gram som kan ha flere timers utholdenhet. På samme måte vil det bli produsert mindre våpen med samme virkning som større våpen har i dag.

Mulige virkninger av teknologiutviklingen

Selv om de fremtidige teknologiske trender på mange områder synes gitt, er ikke virkningene like åpenbare. Innføring av ny teknologi introduserer gjerne en rekke nye problemstillinger og uforutsette forhold. Vi har alle en oppfatning av hva en computer er. De færreste kjenner derimot ordets opprinnelige bruk – det var nemlig en tid ***"Da computerne var mennesker"***[5]**.** Ordet har sitt utspring fra den første verdenskrig. Med stadig kraftigere artilleri økte behovet for forhåndskalkulerte ballistiske tabeller. Og de matematikerne som utarbeidet tabellene ble kalt computere. Hva er så mitt poeng?
I dag omtales vår organisasjon i økende grad i mekaniske termer – enten det er snakk om å være ***"****et sikkerhetspolitisk instrument****"****, "****byggeklosser****"*** eller ***"****en verktøykasse****"***. Vi snakker med andre ord som om vi skulle være et rent mekanisk system. Men er det virkelig det vi ønsker å være? Den automatiseringen jeg har nevnt kan resultere i organisatoriske ringvirkninger vi ikke aner rekkevidden av i dag. Trolig vil svært mange av oss bli overflødige. Det er derfor ikke gitt at mennesket er Forsvarets viktigste ressurs i 2020.

Innføring av ny teknologi blir gjerne rettferdiggjort med at operasjoner og prosesser kan gjøres *raskere, enklere og ikke minst billigere*. Det skal altså være mulig å forene økt effektivitet med reduserte kostnader. Det høres flott ut, men er det virkelig så enkelt?

Vi er i ferd med å innrette oss mot et nettverksbasert forsvar. Hensikten med nettverksorganiseringen er å integrere informasjonen fra ulike sensorer i ett bilde for å bedre situasjonsforståelsen og redusere responstiden. De mest optimistiske øyner en fremtid hvor det er

[5] Paul N. Edwards, *The Closed World*, The MIT Press, Massachusetts Institute of Technology, 1996, s. 45.

etablert ett nettverk med fri flyt av informasjon fra ulike sensorer som aktørene kan knytte seg til og respondere på i sann tid. Dermed skal det være mulig å angripe nye mål etter hvert som de dukker opp. Enklere kan det vel ikke gjøres.

Takket være fysikkens begrensninger er det derimot ikke gitt at denne visjonen er mulig. Ved å øke bruken av UAVer og nettverksbaserte systemer vil behovet for tilgjengelig båndbredde øke. Men det elektromagnetiske spekteret er dessverre ikke uendelig. Det vil oppstå situasjoner hvor den båndbredden man har til rådighet ikke kan dekke hele overføringsbehovet i nettverket. Problemet kan til en viss grad løses i form av etablerte prosedyrer og operative prioriteringer. Flere UAVer kan for eksempel dele på det samme frekvensbåndet. Men da må visse aktiviteter utsettes eller kanselleres. Selv om en god prioritering kan redusere virkningene av båndbredde - begrensningene, vil behovet være større en kapasiteten. Vi må dermed forvente at vi kan bli hindret fra ***"****å være på rett sted til rett tid med de rette innsatsmidler****"***.

Dette eksempelet er på ingen måte enestående. I tillegg kommer hensyn som værgudenes innvirkning og eventuelle fiendtlige mottiltak som jamming. I en historisk sammenheng er det verdt å minne om at ny teknologi verken har gjort krigen enklere eller forutsigbar, men derimot mer kompleks og ofte vanskelig håndterbar.

Vi har også vendt oss til at ny teknologi er viktig for å øke hastigheten i beslutningsprosessen. I en organisasjon som har hurtighet og tempo som det ultimate mål vil mennesket nødvendigvis være flaskehalsen. Det skyldes at det er et betydelig avvik mellom den maskinelle hastigheten og hvor hurtig en organisasjon kan respondere. Jo færre mennesker organisasjonen består av jo raskere kan den fungere. Men er det bare å kvitte seg med flest mulig?– svaret er selvfølgelig NEI.

Før man innlemmer ny teknologi på bekostning av antall hoder må man ha klart for seg om det er hastigheten som er problemet eller kvaliteten på de beslutninger som tas. Det er nemlig ikke gitt at kvaliteten på beslutningene nødvendigvis blir bedre selv om hastigheten økes og antall hoder reduseres– snarere tvert i mot. Hva kan gjøres for å bøte på problemet? Dersom man ønsker mennesket bort gjenstår kun en opsjon – beslutningstakeren må automatiseres.

Men er det mulig å skape ***"****systemer som vet hva de gjør****"?***
Faktum er at det legges ned betydelige ressurser for å utvikle kognitive systemer – eller såkalt kunstig intelligens. Det er derimot lite trolig at man i den nærmeste fremtid vil lykkes med å utvikle noe som kan måle seg mot menneskets resoneringsevne eller egenskap til å handle intuitivt og uforutsett. Dagens systemer er forholdsvis primitive. De baserer seg i hovedsak på kvantitative faktorer som å kartlegge menneskelig aktivitet som bruk av data og telefon. Systemene skal kunne fange opp og respondere på avvik fra det normale mønsteret.
Som vi alle forstår vil det være mulig å villede eller narre slike systemer. De er derfor ubrukelige som beslutningstakere i vår sammenheng. Det betyr at hastighetsargumentet er for ensidig når vi skal rettferdiggjøre innføring av ny teknologi – i ytterste konsekvens kan det være med på å forringe kvaliteten på de beslutninger som tas.

Hva så med kostnadsaspektet? På den ene siden er teknologisk fordyrelse et velkjent fenomen. Kostnadskurvene knyttet til utvikling av nye militære systemer har tradisjonelt sett pekt i en retning - nemlig rett opp. Når det er sagt har det sivile samfunnet på mange områder blitt en sterkere drivkraft i teknologiutviklingen enn Forsvaret. Med introduksjon av hyllevarer har produksjon av såkalt "billig teknologi" fått økt relevans for Forsvaret. Her følger mange

spennende fremtidsutsikter med et stort potensiale for nytenkning, ikke minst for et lite land som Norge.

Vi er vant til at det gjerne går et tiår fra en plattform er på tegnebrettet til den er i operativ tjeneste. For UAVen Predator tok denne prosessen kun 18 måneder. Dette er en utvikling vi kun har sett begynnelsen på. I fremtiden vil det være mulig å effektivisere den statiske utviklings- og anskaffelsesprosessen som eksisterer i Forsvaret. Dessuten bør man kunne fjerne seg fra den overdrevne bruken av militære spesifikasjoner og krav til ekstremt lang levetid. Dette gjelder spesielt innenfor områder hvor den teknologiske utviklingen skjer hurtig. Her kan man kjøpe nytt fremfor å holde kunstig liv i materiell som på mange måter er utgått på dato.

Det vil trolig også være mulig å skille plattform fra avionikk og elektronikk i langt større grad enn i dag. Denne utviklingen kan åpne for at fremtidens plattformer kan rekonfigureres forholdsvis raskt slik de kan fylle flere roller. Dessuten legger det til rette for å etablere hyppigere oppdateringsrutiner. Det er for eksempel ikke utenkelig at det vi kjenner som Midlife Update programmer etter hvert vil bli erstattet med en Annual Update.

Den militærteknologiske utvikling de siste tiårene har pekt i retning fra kvantitet til kvalitet. Innføringen av billig teknologi kan derimot føre til at denne trenden er i ferd med å snu. Da ikke i den forstand at kvalitet vil være mindre viktig. Men innenfor visse områder kan kvantitet bli et mål i seg selv fordi tilgjengeligheten kan økes gjennom produksjon av mindre og billigere plattformer, sensorer og våpen.

Avslutning

Ny teknologi er med på å flytte våre grenser for hva vi finner etisk akseptabelt. Sir Arthur ”Bomber” Harris kalte for eksempel bombekampanjene mot de tyske byene under andre verdenskrig for ”Dehousing” operasjoner[6]. Det kunne han gjøre fordi han var distansert fra virkningene av egen krigføring. De som opplevde bombingen på nært hold hadde garantert en annen oppfatning enn Harris. Også i fremtiden vil vi stå overfor en rekke etiske dilemmaer. Jeg vil komme med en historie om et pågående prosjekt fra Defence Advanced Research Projects Agency eller DARPA som illustrerer dette[7].

DARPA har en ape ved Duke University som har fått implantert vev i hjernen. Vevet er tilkoblet sonder som skal fange opp hjerneaktiviteten til apen. Det har vært gjort forsøk med apen. Den har blitt gitt en joystick. Ved hjelp av lyssignaler og bruk av belønning har den blitt lært opp til å bevege joysticken. Signalene sondene fanget opp når armen beveget seg, ble sendt til en mekanisk arm som også holdt i en joystick. Den mekaniske armen ble innstilt til å bevege seg som apens arm. Den mekaniske armen ble deretter fjernet fra Duke University og plassert ved Massachusetts Institute of Technology eller MIT. Under forsøkene gjorde apen som den var lært til. Når lyset ble slått på beveget den armen for å få sin belønning. Signalene fra hjernen ble sendt over internet til MIT. Hva tror dere skjedde – jo den mekaniske armen beveget seg.
Vel er det skremmende, men historien stopper ikke der. I neste trinn tok de joysticken vekk fra apen. Lyset kom på og apen var uten joystick. Men den var ikke rådvill av den grunn. Den tenkte hva den skulle gjøre, og den mekaniske armen på MIT beveget joysticken som før. Med andre ord – apen tenkte på å bevege joysticken – og joysticken på MIT beveget seg.

---

[6] Michael Russell Rip and James M. Hasik, *The Precision Revolution – GPS and The Future of Aerial Warfare*, Naval Institute Press Annapolis, Maryland, 2001, s 31.
[7] Dr. Anthony J. Tether, Defence Advanced Research Projects Agency, tale DARPATECH 2002.

Jeg vil anta dere reagerer forskjellig på denne historien. Noen vil hevde at det kun er snakk en mer avansert form for man-machine interface. Andre vil derimot rynke kraftig på nesa. Uavhengig av hvilket standpunkt den enkelte av dere måtte ha kan tror jeg vi enes om en ting:

Fremtiden vil ikke bli hva den engang var – og det vil for en stor del skyldes den teknologiske utviklingen. Som jeg har pekt i mitt innlegg skaper ny teknologi ringvirkninger ut over det rent teknologiske. Det genereres også en rekke nye utfordringer av både sikkerhetspolitisk, operasjonell, organisatorisk og etisk art. Det er derfor ikke gitt at alt blir så mye enklere, raskere eller for den saks skyld billigere i fremtiden – til det peker utviklingen i flere og til dels motstridene retninger. Det eneste vi med sikkerhet kan slå fast er at det kartet vi har over Luftforsvaret i dag ikke vil stemme overens med landskapet om 20 år.

AIR AND SPACE POWER. Prospects and Problems

Philip S. Meilinger

The article is an approved copy of the author's presentation at the seminar. Red.

Staff officers are, I think, noble people, wonderful people, that have an important calling. I know many of you are staff officers or are training to be staff officers. If you have not already occupied such a position, you no doubt will at some point in the future. So I think that's great; I was once a staff officer myself. I would point out, however, that not everyone agrees with the importance of staff officers. General George Patton once wrote:

"The typical staff officer is a man past middle life, spare, wrinkled, intelligent, cold, noncommittal, with eyes like a codfish, polite in contact, but at the same time unresponsive, cool, calm and as damnably composed as a concrete post or plaster of Paris cast; a human petrifaction with a heart of feldspar and without charm or the friendly germ; minus bowels, passions or a sense of humor. Happily they never reproduce and all of them finally go to hell."

So I can only hope that before you do become a staff officer you have taken care of your family planning, because otherwise it will be too late! On the other hand, Field Marshal Helmut von Moltke, the Elder, once said that there are basically four types of officers. There are those who are lazy and stupid. That is your cannon fodder. Send those to the frontline to be shot first. There are others who are stupid, but are very energetic. They are very dangerous. You must kill them immediately! Third are those who are very smart, and they are also very energetic. Those are your staff officers. They will do all your work. And finally, there are those who are intelligent, but very lazy. "Ah", said Moltke: "Treasure them, nurture them, for they will be your generals."

Here is what I will talk about today:
Some of the Characteristics of Air and Space Power
Some of the Implications I have seen in warfare over the Past Decade—since the Persian Gulf War
Some of the Challenges Facing Airmen today

Let me start with a definition. This is my definition. It is not official. It is just the one that I use to define air and space power.

Definition: Air and space power is the ability to project power or influence - it is not just bombs; it is not just fire and steel; it is humanitarian airlift; it is communications etc., through the medium of the air or space to achieve strategic, operational or tactical objectives. This is one of the unique aspects of air and space power, because it can do these things at all three levels of war simultaneously. Generally, surface power cannot do that. It encompasses military, commercial and civil aviation, the industrial infrastructure to build it, and – finally, and perhaps the most important - a doctrine of employment.

If you don't have all of those components, you don't have air and space power. Iraq had a collection of airplanes. It did not have air and space power, because true power requires all of these things. And please note, I'm not talking solely about the US Air Force: I'm talking about air and space power as a joint concept. So, the fixed wing aircraft and helicopters of all the services are included here. Indeed, it is a combined term; by that I mean it is generic to all types of air and space power including, for example, that of Norway, Russia, NATO, etc. Even since

before the airplane was invented people had already recognized that there were inherent strengths of the airplane:

Ubiquity/Perspective - Aircraft operate in the third dimension; they can fly over mountains, rivers, and oceans, which obviously surface forces cannot do.
Speed - They can do so very quickly.
Range - They do so over great distances.
Potency – aircraft can deliver tremendous firepower.
Even in World War I bombers were taking off from Germany, flying nonstop to drop two or three tons of bombs on England, and then returning to their bases. Aircraft speed was approaching 150 miles per hour—which was an order of magnitude faster than things were occurring on the ground—and their ceiling was over 20,000 feet.
Flexibility - This is the ability of all of those things above combined: To take off and fly 300 miles in one direction, or to fly 300 miles in another, or to start in one direction and turn around, or go back and do something else. I think that is an enormous flexibility, which is inherent in what aircraft can do.

Inherent limitations in modern warfare
But at the same time there are also inherent limitations, which were also recognized immediately.
Capital and Technology Intensive – Air and space power is expensive. Not everyone can afford, or is able, to build air and space power. Only certain nations can afford to do so or have the technical capability to do so.
Ephemeral/Transitory – Air and space power is often seen as episodic; it only happens for brief periods of time. You can't dig a trench in the sky and stay there for weeks or months or years as can a soldier; you can't drop anchor and blockade a particular port for weeks or months or perhaps years at a time as can a ship. Even during World War II the thousand bombers of the Eighth Air Force might be over a target for perhaps an hour. That was all. Then it had to land, refuel, rearm, patch themselves up and fly again in a few days. So it was very transitory.
Weather and Night - Night was a severe problem for early aviators. Obviously, it was also difficult for them to fly in a snowstorm, through rain, or even through clouds. So weather was a severe limitation.
Airpower Can't Hold Ground – This is the characteristic that my army brethren remind me of constantly. As soldiers will always tell you: only armies can hold ground.

Thus, for a hundred years we have recognized the strengths and limitations of air and space power. But one of my arguments today would be that over the past century the strengths of air and space power have gotten stronger. We can fly higher, faster, farther, and can deliver more payload now than we ever could before. But at the same time, and this is important, the weaknesses of airpower have gotten weaker. Because it is expensive, NATO has developed such powerful air and space forces it will be very, very difficult for anyone to catch up to us. So that weakness has almost become a strength, because now we have achieved a tremendous superiority over much of the world when it comes to air and space power. Air and space power is not as transitory as it used to be. Because of air refueling we have aircraft like the B-2 that can take off from bases in Kansas in the Unites States and fly non-stop to bomb targets over Afghanistan or Iraq, and then turn around and go back. Or we have unmanned air vehicles (UAV) that can stay airborne for up to a day. And of course there are now satellites that are overhead 24 hours a day for years at a time. So air and space power is not as transitory and episodic as it used to be.

Similarly, weather and the nighttime are not the major impediments that they once were. Because of radar, infrared, and other types of imaging it is now possible for aircraft to fly and to conduct military operations in bad weather or at nighttime to a greater extent and with greater accuracy than has ever been the case before.

And finally, and I think this is the most significant, in today's geopolitical environment, sometimes another name for ground troops is "targets" or "hostages." There are many instances when we don't want to put our troops on the ground into a particular situation, because it either is too politically provocative, or it is too risky, and we may get our troops killed. For example, during the Vietnam War the US Army had wanted to invade North Vietnam to end the problem at its source, but the administration of president Johnson refused; he feared that an invasion of North Vietnam would cause China to intervene, as it had during the Korean War. Instead, he chose to bomb North Vietnam, unsuccessfully to be sure, but he chose airpower precisely because of its greatest weakness. It could not hold ground; therefore, it was less provocative. I think we have something similar occur over the last twelve years. In Kosovo, for example, it was stated at the outset by President Clinton and NATO leaders that they would not introduce ground troops into this battle because it was too dangerous.

I would urge all of you to think about ground power, sea power, marine power, special operations power, information power, etc., and come up with a list like this of the strengths and weaknesses of those different forms of warfare. As a joint planner you'll be confronted with a crisis at some point, and you will need to pick and choose the weapon systems and the forces to maximize their strength and minimize their weaknesses. In order to do so effectively, you will need to know and understand the strengths and limitations of all the forces at your disposal.

Let me also state that air and space power is significantly different from ground power, and one thing we have to be careful of today is what I call the flawed Clausewitzian paradigm. I suspect that Clausewitz is taught here, as he is at most war and staff colleagues around the world, especially in the West. I think that is a problem because Clausewitz was a soldier who wrote nearly two centuries ago. He wrote about land warfare—not surprisingly since he was a soldier. But he did not even mention sea power, which is significantly different in its objectives and its conduct than is land power; and of cause air and space power is much different from both of those. For example:

A Center of Gravity (COG) is Generally Defined as the Enemy Army. Clausewitz states in *On War*, page 248, that: "But since the essence of war is fighting, and since the battle is the fight of the main force, the battle must always be considered as the true center of gravity of the war. All in all, therefore, its distinguishing feature is that, more than any other type of action, battle exists for its own sake alone."

He repeats this principle at least nineteen different times in *On War*. Therefore, just reading Clausewitz, one would get the mistaken impression that the only way one can fight and win wars is by destroying armies, by inserting land troops, and by occupying territory. I think that such a belief would be a great mistake, because that is not the way war is fought today. And yet, here is a current document from the U S Army that essentially says the same thing Clausewitz said two hundred years ago:
"Land combat continues to be the salient feature of conflict. It usually involves destroying or defeating enemy forces or taking land objectives that reduce the enemy's effectiveness or will to fight." US Army FM 3-0, June 2001.

And even looking ahead to the future of land warfare, here is what our army says:
"Despite more than three millennia of improvement in man's ability to see and strike his enemies from a distance, victory in war sooner or later comes down to the ability to threaten and if necessary execute direct ground combat operations to capture or destroy an enemy's soldiers and weapons, seize the territory he controls, and break his continued will to fight." "Conceptual Foundations of a Transformed US Army," 2002
I think this is wrong. If you believe that is what warfare is all about, then I think we are going to continue to make mistakes when we fight in the future. Warfare has changed tremendously over the past decade.

Assumes Rational Actors
Another problem with Clausewitz is that he assumes "rational actors." One of his most famous one-liners is of course: *"War is a continuation of policy."* We usually interpret that sentence to mean that we should not fight unless we have a political goal in mind, that goal is achievable, and that we will shape our military efforts to achieve that political objective. That's the way we think as Westerners. I'm not sure that's the way al-Qaeda thinks, nor is it the way that Saddam Hussein thinks. Moreover, it is not the way the Japanese thought in World War II or the Vietnamese thought in the decades that followed World War II. That is why, in my view, the United States has continually misunderstood the enemies that we have fought, and we are continuing to do so today. We look upon war as a continuation of policy, but much of the world does not. We must bear in mind: *War is NOT Always a Continuation of Policy; It is Often a Cultural or Religious Phenomenon*

Implications from the Past Decade

Neither Fight nor Forget the Last War
Military leaders always warn about the first condition—that we must not fight the last war. By the same token, we must not *forget* the last war either. Here is an interesting quotation from MRAF Sir John C. Slessor*: "If there is one attitude more dangerous than to assume that a future war will be just like the last one, it is to imagine that it will be so utterly different that we can afford to ignore all the lessons of the last one."*

I bring this up because after the Persian Gulf War, where air and space power played such a major role, I was often told that conflict was unique, that the conditions that existed there would never happen again, that we therefore should not draw too many lessons from the Persian Gulf War, and not to think that it would be the future of war. After Bosnia I once again heard that it was different and unique, so we should not draw too many lessons. I heard the same thing again after Kosovo, and then again after Afghanistan. There have therefore been four recent conflicts where warfare has been very, very different than it had been in the past. Those "exceptions" are actually going to be more indicative of the future than old, World War II paradigms. We must therefore learn from the past, and not simply ignore it.

Air and Space Superiority is Essential
Almost everyone I talk to recognizes the importance of air and space superiority, but I'm not sure that they really understand its full significance. Figure 1 is a picture of al Damman,

Figure 1: al Damman depot

Figure 2: Highway of Death

which is a large depot in Saudi Arabia. This photo was taken during the Gulf War. I tried to count them once; there are several hundred vehicles in this picture, which are lined up bumper-to-bumper, hub-to-hub. It is what an F-16 pilot would refer to as a target-rich environment. That is what you can do when you have air superiority. The Coalition had air superiority in 1991.

The picture in Figure 2 is the so-called Highway of Death leading northwest from Kuwait City where in 1991 fourteen hundred Iraqi vehicles were destroyed in thirty minutes by air attack. That's what happens when you lose air superiority. We want to make sure we always have it. It is very, very important.

Two Components of Air and Space Superiority

1. We prevent him from attacking our forces, infrastructure and society
2. He cannot prevent us from attacking his forces, infrastructure and society

Here is the problem: There are two aspects to air superiority. We prevent the enemy from attacking us, but the enemy cannot prevent us from attacking him. Everybody remembers the first condition, and most ground officers will tell you that this aspect of air superiority is the most important. They don't want enemy aircraft attacking them. But what to me is crucial to recognize is that all our joint doctrines and strategies are predicated on being able to conduct certain air missions in war: close air support, air interdiction, long-range strike, JSTARS, AWACS, air refueling, and airlift into and within the theatre. If we lose air superiority we can't do those missions. And if we can't do those missions we risk losing the war.

Especially important regarding this second condition is that the threat today is not necessarily air-to-air. Certainly there are wonderful airplanes out there like the Gripen, Typhoon II, Rafale, MiG-29 and SU-27; these are very good aircraft that are a serious match for the F-15 and F-16. But it is not so much the air-to-air threat that we have to worry about; rather, it is the ground threat. The US has never had to fight against an SA-12 or SA-20 SAM system. I'm not sure we could handle it. And yet, if that ground threat denies us air superiority we will not be able to perform those missions, and the joint force will run into serious trouble. That is why the F-35 (Joint Strike Fighter) and the F/A-22 are so important for our future, because they will be able to survive in the new ground threat environment that we see emerging.

Precision and Stealth have Redefined War

What we need today is density and not mass. The importance of mass is a principle of war and has been for a hundred years. But in my opinion, density—which is mass per unit volume—has a connotation of accuracy involved. We once needed mass in air warfare because our accuracy was so poor. In order to destroy, for example, a building of this size during World War II a thousand bombers were necessary—it took that many bombers to guarantee that two or three bombs would hit the roof above us. Now it takes only one aircraft and probably only one bomb. In other words, mass is no longer important. What is important is putting that mass into the right volume, into the right place. So *density* is very important. Let me illustrate this by noting that today, a single B-2 stealth bomber can have the same effect as hundreds of aircraft during World War II. Certainly these aircraft are expensive, but consider the alternative—the cost of dozens of aircraft, along with the cost of the crews, the training, the bases, the commissaries and exchanges and dental clinics that you need back in the United States for the dependents of all these people, as well as all the maintenance personnel, the oil, fuel, and munitions. When you consider all of those aspects you can see that this, I believe, is truly a revolution in warfare. Over Afghanistan

we had instances where B-52s and B-1s were carrying sixteen individually targeted weapons, JDAM bombs, all of them with ten-foot accuracy. To me this is a revolutionary change in war.

Precision weapons need precision intelligence

If one has the ability, and the US now does have the ability, to put a bomb through the second window from the left on the third floor of a particular building, you had better make sure it is the right building and not the Chinese Embassy. Intelligence must keep up with targeting abilities, and in the past that has not always been the case.

We must have an objectives—strategy—target match

What I mean by that is this: In my view, *all war is a targeting exercise. We use force against a physical object, and we expect it to have either physical or psychological effects on the enemy.* I think that's really what warfare is all about. The essence of our strategy is picking the correct targets to destroy, neutralize or otherwise affect in some way. However, you must remember that every target struck must be directly related to the political objectives, which our leaders have set for us. In other words: our political leaders give us their political goals. We device a military strategy to fulfill those objectives, and then military planners and targeteers decide which targets to strike in order to accomplish that military strategy, which will in turn achieve the goals of our political leaders.

That is not always what happens in warfare. It sounds very obvious, but it is not. After the Persian Gulf War an interviewer was talking to a high ranking air commander from Desert Storm, and he brought out a series of maps and laid them down in front of the general and asked: "On a particular night you hit this bridge. Why did you hit it? It seems to be well outside Baghdad and relatively unimportant: it was over a road that led nowhere, yet it was destroyed. So, why did you hit that bridge?" And the general thought for a second and he said: "Because it was a bridge. It was bridge night. We do bridges. Bridges are us."

He was half serious. The question we must therefore ask is do we hit targets today because they are hittable, or because our doctrine says we should hit them, or because we can hit them without causing collateral damage, or because we could hit them without suffering any casualties ourselves; or do we hit a target because it has a direct relationship to the political objectives we are trying to achieve? That last ought to be our litmus test for why we strike a particular target. And I'm afraid that too often in today's world we hit targets for the wrong reasons. And remember:

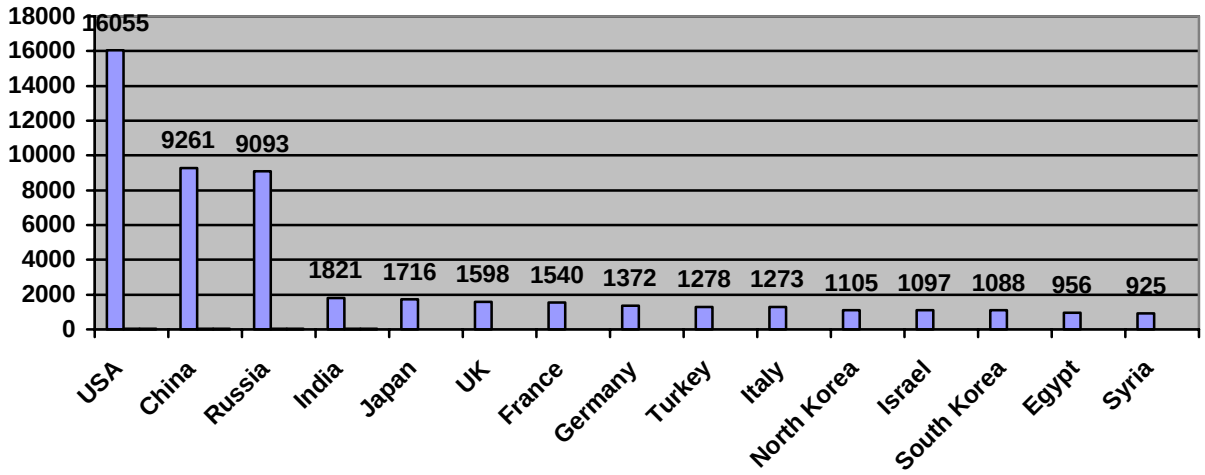
Destroying Targets Does NOT Equal Air Strategy, and *Certainly* Doesn't Equal Victory!

Professor Cordesman yesterday talked about body counts—Americans had a penchant for that practice during the Vietnam War. Americans like to quantify things; we like to measure and count things—sorties, bomb tonnages, percentages, etc. That is acceptable, but just remember that counting things is not the same as fighting, and it certainly is not the same as winning wars. Just because something can be counted does not mean it is important.

Redundancy is the American Way of War: Or, Indecision is the Key to Flexibility!

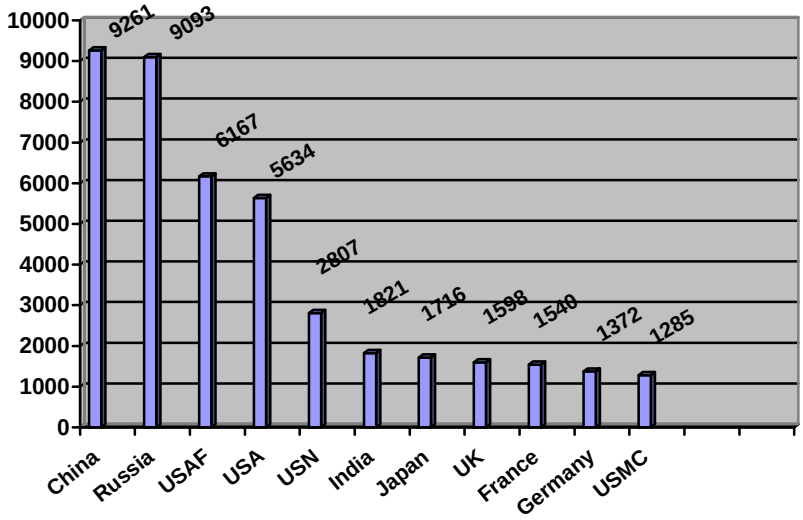
I'm trying to be humorous here. I am concerned that the US Defense Department has had a difficult time making hard decisions on force structure. Should we buy more aircraft carriers or more long-range bombers; should we buy another army division or another tactical fighter wing? What the United States tends to do is to buy lots of everything. Perhaps that's been a good policy, because the result is that we have a very strong air force, a very strong army, a very strong navy, a very strong Marine Corps, very strong information forces, space forces, special

operation forces etc. We are therefore so redundant in so many ways it is very difficult for an enemy to find our weaknesses—we don't have many weaknesses.



This diagram is interesting because it clearly shows that America is an airpower nation. This graph shows the numbers of all military aircraft of all types, fixed wing and rotary wing, of the world's leading nations. As you can see, the US has over 16,000 military aircraft, followed by Russia and China; the numbers then drop off considerably.

In truth, American air dominance is even greater than it looks, because over half of China's air force consists of MiG-17s, 19s and 21s, which are Vietnam-era technologies. Russia has very good aircraft, but because of funding problems they are usually not maintained well, and their pilots don't get the kind of training that they need. As a result, their aircraft, although there appear to be a great many of them, are not always operational. In addition to that, the US has 75 percent of all the aerial refueling tankers in the world today, and it also has nearly 75 percent of all the large airlifters in the world. If you include C-130 type aircraft, that percentage drops to about 30 percent—still a large percentage. Thus, the US dominance in airpower is even greater than it first appears.



This figure is even more interesting. If you break out the US total by its component air arms you see that, following China and Russia, the largest air arm in the world belongs to the US Air force, followed by the US Army, and then by the US Navy; a bit farther down the list is the US Marine Corps. What that seems to indicate is that everyone in the US military recognizes the dominance of airpower in their military operations today.

What does that means for joint planners? It means this:
You should always plan to use ALL your levers of power in a crisis, and I think the levers of power are your economic, political, psychological and military capabilities. And the use of ALL your military forces should be anticipated. As a joint planner you should try to use all the strength at your disposal. However, invariably you will find that after you go to your political leaders and give them your best military plan, they will tell you: "You can't do that. You can't use this type of aircraft; you can't use that type of weapon; you can't introduce ground troops; you can't use those bases, etc." *Don't be surprised if we are constrained from using everything!*

As a consequence, you will have to change your plans. You will need to be flexible. Although you should plan to use all the weapons in your arsenal, you must bear in mind that when the time comes, you will probably be unable to do for political reasons.

Media Spin is a New Principle of War
This was discussed yesterday as well, but my point is, as a military commander, you must realize that everything you do from now on will be on the six o'clock news. Everything you *don't* do will be on the six o'clock news. If you cannot defend your actions before an international audience, then perhaps you should rethink your actions. In the future there will be far more scrutiny from news media worldwide. If you make a mistake, and, for example, bomb the wrong target, it will no doubt be shown on television. Don't misunderstand. I'm not saying that military people should attempt to manipulate the news media. Rather, it means that commander must be aware that the news media has become an important factor in military operations today and they must always consider it in their planning.

Public is SEEN as being Casualty Intolerant
The United States public and perhaps the NATO public as well, is assumed to be Casualty Intolerant. I'm not sure that's true, but our political and military leaders *assume* that is the case. We then base our military policy upon such assumptions, which may be wrong. Here is a quote from General Hugh Shelton, dated 26 January 2000, who was then Chairman of the Joint Chiefs of Staff. He referred to a "Dover Test":
"Is the American public prepared for the sight of our most precious resources coming home in flag-draped caskets into Dover Air Force Base?" Granted, that quote was made over three years ago, during a previous administration, but then I came across the following headline in a US paper last month:

"Risk Concerns Hamper Hunt for Taliban" *(Washington Times,* 9 Dec 2002, Page 1)
There are apparently numerous instances in Afghanistan where we knew al-Queda or Taliban leaders were present. We could have gone in and gotten them, but because that would have incurred possibly heavy casualties we elected not to strike; we elected not to move; and those terrorists escaped. This concern for casualties is a very real one, and it is something that we as military officers must be aware of.

A new paradigm?

I think there may be a new paradigm emerging: Air and Space Power combined with Special Operation Forces (SOF), not American conventional ground troops, plus Indigenous Ground Troops - may be far more prevalent in future military operations. In Bosnia, for example, we coordinated our air strikes with a Croatian land offensive. In Kosovo we coordinated our air strikes with the Kosovo Liberation Army (KLA). In Afghanistan we didn't have American conventional troops there at all initially; we had our special operations troops acting with anti-Taliban forces. In addition, the CIA was operating there as well, and it was the CIA who operated some of the Predator UAVs in the conflict. It is a very interesting thing that happened in Afghanistan, and we weren't prepared for it because we had not done it before. We don't have a doctrine to ensure that this type of unusual operation employing such diverse forces works effectively. There were mistakes made because people were not talking to one another, largely because we had not done this sort of thing before. This may not necessarily be *the* paradigm for the future, but it may be *a* paradigm; it may be a model that we have to plan for, that we have to write doctrine for future employment.

Here are two interesting quotes that I think captures this new type of conflict. The first is from General Peter Pace, a marine who is the vice Chairman of the Joint Chief Staff of the US. He is the second highest-ranking military officer in the US, and this is a comment he made regarding the operations in Afghanistan: *"Our specialized approach to caves and tunnels is to put 500 lb. bombs in the entrance."* That's quite an unusual comment for a marine to make. Even more surprising is the following statement by
General Wesley Clark, US Army, the NATO commander for Kosovo: *"This is modern war. It's not like Desert Storm. You go into it with your nose first, slowly. You get your grip. You get others to fight for you. And you use airpower as much as you can and stay as high as you can."*

If that's what warfare is like now, and it may be in the future, I think we have to plan for it, and we have to write our doctrine based upon that. In addition:

The Air Tasking Order has Finally become a Flexible Tool

There used to be complaints that it takes airmen several hours to put bombs in a particular target after a strike had been requested. But in truth, we are now building flexibility into the air tasking order (ATO) by simply sending aircraft out without a given target. We tell them to fly to certain coordinates and orbit there until someone on the ground, or another airborne controller, gives them a specific target. They can then dial in the coordinates on a JDAM bomb, and they can put a bomb on a target within minutes. I think that is a radical new departure from the way things were done in the past. This makes air and space power far more flexible and responsive than it has been in the past.

There is a new term currently be used by the US Air Force called Ground Assisted Precision Strike (GAPS):

Is GAPS to Replace CAS and BAI? One Step Beyond: What if Not even Ground Assisted?

Most of our doctrine is based upon things like Close Air Support (CAS), Air Interdiction (AI) or Battlefield Air Interdiction (BAI). All of these air missions are predicated on the assumption that friendly ground forces are present. But what if our conventional ground forces are not there, as was the case in Kosovo in 1999, or as in Afghanistan in 2002? In such instances, what are the procedures for putting bombs on a particular target? The fact is, we don't really have a doctrine for that. Similarly, what if the enemy is moving away from us? What if he is escaping or trying to retreat? Our current definition of air interdiction states that we are striking forces before they can engage our troops. But what if they are *not* trying to engage our troops? What if they are trying to hide? How do we conduct an air campaign in such situations? And finally, what if we

don't even have spotters on the ground or special operation troops to designate our targets for us? What if, on the contrary, we are using UAVs or other sensors in air and space to locate and identify targets for our strike aircraft? Those situations will no doubt occur more frequently in the future.

Challenges for Airmen

War is a Cultural Problem

I alluded to this earlier. War, increasingly, is a cultural problem, not primarily a political or military one. We have to understand the cultures of other peoples, such as the Islamic fundamentalists who are fighting against us today. For example, the American people simply do not understand the mentality of terrorists. We don't understand the way they think or what motivates them. This is not a new problem. We did not really understand the motivations and mentality of the Japanese in World War II, or of the Vietnamese. We do not understand Saddam Hussein. As long as we mistakenly continue to address war as a political problem as Clausewitz instructs, instead of seeing it as a cultural phenomenon, we will continue to be caught by surprise by the actions of people or groups that we simply do not understand.

Interoperability is a Major Concern

This was a major problem in Kosovo. Lord Roberts, Secretary General of NATO, has discussed this problem at some length. It is a real concern; yet, it contains an unusual paradox. Politically, it is becoming increasingly important that the United States and NATO are able to operate together as an alliance, and that the United States does not operate alone. To do so is politically dangerous for the US. Yet, at the same time, it is becoming more and more difficult to work together as an Alliance for technological reasons. It was difficult for our aircraft to work together effectively in Kosovo, and now we have moved far beyond Kosovo. As US military technology continues to accelerate and evolve, interoperability issues will continue to increase as well, and this is a problem that must concern us.

Power Projection remains Essential

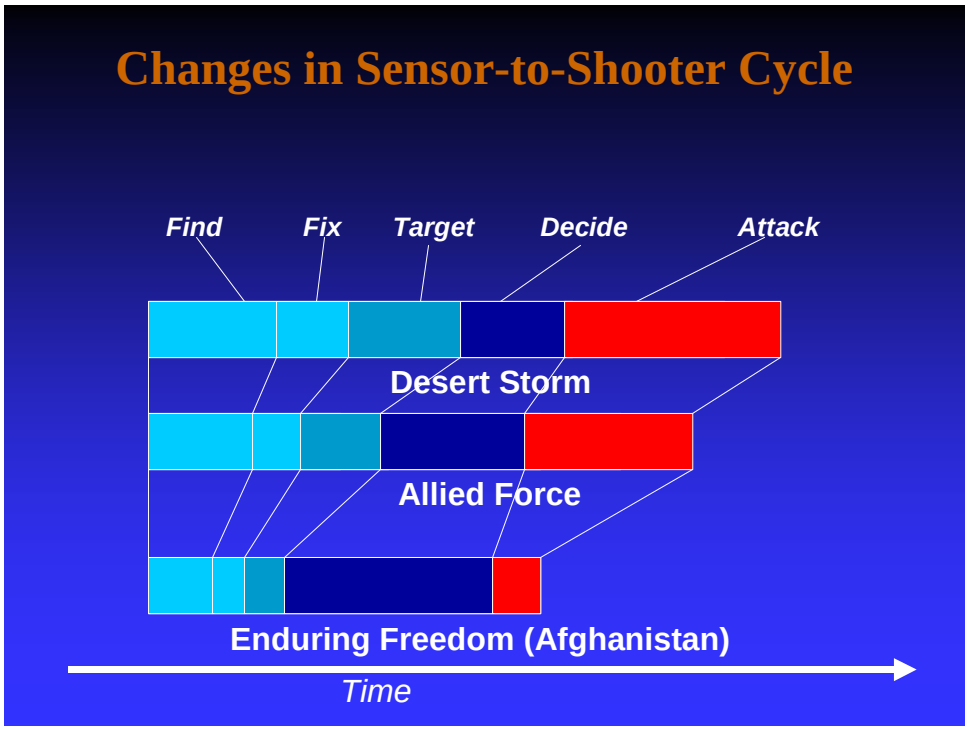
Just about everything the United States or that NATO is going to do will be out of area or out of theatre. That means we must have the capability to project our military power over significant distances. That means, especially when speed is crucial, that we have a strong airlift and aerial refueling capability. In the US, these air assets are aging—our KC-135 fleet averages over 40 years old. This is a great concern to the US Air Force, and it should be; without our ability to project power, it is difficult to carry out our foreign policy.

How do we Track Mobile Targets and Weapons of Mass Destruction?
This is a major issue, and it leads to another concern:
Do we want Centralized Control and Centralized Execution OR Decentralized Control and Decentralized Execution?
It has always been a tenet of airpower doctrine that we should exercise centralized control and decentralized execution. Perhaps the technology of the past dictated such a principle, but now we have technology that gives us virtually instant communications and near real time intelligence. As a result, we can now enjoy either centralized control and centralized execution or we can do just the opposite - we can exercise decentralized control and decentralized execution. By the former I mean you can take all your sensor information and channel it into the basement of the White House, or into Tampa, Florida, where the Commander in Chief of the Central Command is located, and he can make every decision on what to bomb and when to bomb it. Or you can take that same information and put into the cockpit of a B-2, and have the

individual pilot make that decision. That is decentralized control and decentralized execution. We can go either direction, but which direction would ensure the most effective and efficient military results? That is something we must consider.

Relatedly, we saw in Kosovo and Afghanistan that *Mobile Targeting is now limited more by Human Factors than it is by technology.*

Changes in Sensor-to-Shooter Cycle



There are no numbers on this figure because they are classified, but it reflects the fact that the decision cycle for sensor to shooter is significantly lower than it was at the time of the Gulf War. That is the good news. The bad news is that the time taken to actually make the decision is greater than it was before. In other words, this is a human problem, it is not a technological problem. We have given the decision maker too much information, and he is finding it difficult to make a decision quickly. We saw this on several occasions in Afghanistan when we had targets identified and aircraft on station to strike them, but by the time the decision makers in Florida made a decision the target was already gone. We need to address this decision-making problem. (I should note that since this lecture was given, operations in Iraq demonstrate that this problem has largely been solved.)

Command and Control

Why Didn't the CINC Deploy?
There are other command and control issues we may address here, such as why the CENTCOM commander did not deploy to the theater for Afghanistan? Instead, he remained at his headquarters in Florida. That is very unusual.
Why Did JFACC Deploy?
But at the same time the Joint Force Air Component Commander (JFACC) *did* deploy to the theater. Thus, the two major commanders involved in this operation were located nearly 5,000 miles apart. Did this cause difficulties in the successful prosecution of the war? Could things have been done better?

Law, Morality and Humane Warfare

CBUs, DU, FAE, Napalm—Is their use Worth It?
CBUs are Cluster Bomb Units; DU is Depleted Uranium ammunition that is fired by our A-10s and tanks; FAE are Fuel Air Explosives that cause tremendous explosions and suck the air out of local area and strangle things. Napalm, which was used extensively in Vietnam, was also used in the Gulf War. We need to begin asking, because of those media issues I talked about earlier, whether we should employ these types of weapons. Their use is not illegal, but we need to ask if they are too politically sensitive for us to use them any longer.

BDA is a COMMAND Problem!
Professor Cordesman yesterday talked a great deal about Bomb Damage Assessment (BDA), and I think he right in that it is a problem that we have not yet solved. This is especially true when civilian casualties or collateral damage are involved. If one of our bombs or missiles goes astray and collateral damage occurs, it is essential that our military and political leaders present the facts of the case to the world public immediately. In the past, too often the first reports came from news agencies that were not friendly to the US and its allies. Once again, recall my comments regarding the importance of media relations: we cannot allow our military efforts to be undermined simply because we fail to address possible errors in a timely and accurate fashion. In order to do so, however, we must have accurate and rapid BDA.

Beware the Scenario Builders
All of you should question anyone who predicts what the future is going to look like, including me. So, when I say that I think *this* is the future, you should demand evidence; you should demand proof for what I'm saying. Too often those who predict the future have specific agendas in mind. For example, if someone claims that in the future access to airbases in a particular area will be a problem, then I will question if that person is actually an advocate of long-range airpower who is actually suggesting we should buy more B-2s or perhaps more aircraft carriers. Similarly, when someone tells me that urban warfare is the future and that we must therefore have a large ground force trained to conduct such type of operations, I ask for proof. Is there empirical evidence to show that urban conflict has increased over the past several decades? If not, why should we assume that it will do so in the future? Once again, if we accept the *assumption* that urban conflict is more likely to occur, than we must also accept the conclusion that we need more forces trained and equipped to conduct urban warfare. But before I accept that argument, I need to see more evidence. Again let me iterate that there are many people out there, including myself, who are going to tell you what the future looks like. Take what we say with a grain of salt; challenge our assumptions, because they may be wrong or ill-founded.

Asymmetrical Warfare the Future?
Finally, despite what I just said, I do believe that asymmetrical warfare is the future - at least as far as the US and NATO are concerned. We have become so powerful that it is going to be almost impossible for anybody to take us on conventionally; therefore, it seems logical to assume that if enemies do appear - and they most certainly will - they will fight us asymmetrically so as to eliminate our technological and numerical advantages.

Iraq?
I'll just finish up by saying a few words about the present Iraq crisis. I know you talked a great deal about this issue yesterday, and I have nothing new or profound to add to that discussion. I don't know whether we will attack Iraq, or if we do, what the battle will look like. But let me say one thing, and I'm speaking simply as one American out of 280 million Americans: people have been underestimating President George W. Bush for over a decade. They didn't take him seriously the first time he ran for governor of Texas; they didn't take him seriously when he ran for president in 2000; and they didn't take him seriously in the mid-term elections just a few months ago in 2002. They have consistently underestimated him. In my opinion, and again it is just my opinion, George Bush does not bluff; he does not politicize issues, and he does not "spin" issues. We have a saying in the United States that he is a person "who says what he means, and means what he says." Those who believe that George Bush is bluffing or that he is merely sable rattling are, in my view, wrong.

That's all I have. Thank you very much. It has been a great pleasure for my wife and I to visit your beautiful country and share your hospitality.

New Horizons: New Zealand's Decision to Disband the Air Combat Force

Shaun Clarke

Disclaimer
The views in this paper are those of the author and do not necessarily reflect the official policy or position of the New Zealand Ministry of Defence, the New Zealand Defence Force or the Government of New Zealand.

Introduction

The aim of this paper is to present and discuss some of the factors behind New Zealand's recent decision to cancel its air combat capability. This is topic of some interest to many defence forces across the world as they work to estimate future threats and plan appropriate force modernisation, within the economic resources available to their respective governments in competition with other national priorities.

This matter will be dealt with in four parts:

a. A brief history of the Royal New Zealand Air Force (RNZAF) strike capability and the A-4K Skyhawk;
b. General environment factors relevant to the cancellation of the capability;
c. Current rationalisation of the RNZAF/NZDF (New Zealand Defence Force) position, and
d. A brief look at the future of the RNZAF.

A Brief History of the RNZAF Strike Capability and the A-4K Skyhawk

An air strike capability has been maintained by New Zealand since the very inception of its military air power. The capability and tradition extend back to the New Zealanders who served under the British in World War I. New
Zealand's first strike aircraft – two Bristol F2B Fighters and two de Havilland DH4 bombers – arrived in country in 1919.

The first offensive air operation took place in 1930 when a de Havilland DH60 Seaplane was deployed to Samoa onboard a naval vessel in response to a local uprising. The weapons were crude – a signal pistol and an improvised bomb in a treacle tin.

Since that time, New Zealand has operated a total of some 1350 fighters and bombers of 20 different types[8] – the majority of which were brought into service during World War II.[9] The total, significantly, does not include No.75 (New Zealand) Bomber Squadron,[10] [11] or the six

[8] These include, in chronological order, Bristol F2B Fighter, de Havilland DH4, Gloster Grebe, Vickers Wellington, Lockheed Hudson, Brewster Buffalo, Hawker Hurricane, Curtiss P-40 Kittyhawk/Warhawk, Lockheed Ventura, Douglas Dauntless, Grumman Avenger, Chance Vought Corsair, Lockheed Harpoon, Gloster Meteor, de Havilland Mosquito, de Havilland Vampire, North American Mustang, de Havilland Venom, English Electric Canberra and McDonnell Douglas Skyhawk. Geoffrey Bentley and Maurice Conly, *Portrait of an Air Force: The Royal New Zealand Air Force 1937-1987*, Grantham House, Wellington, 1987, pp. 191-194.

[9] This total includes over 60 aircraft which were variously hired from UK forces between 1941 to 1962 to assist with the defence of the British base in Singapore, and to carry out a garrison role in Cyprus in support of the Middle East Defence Forces. These included the Buffalo, Hurricane, Venom and some Canberra aircraft. Bentley and Conly, *Portrait of an Air Force*, pp. 191-194.

[10] Reformed in Norfolk, Britain in 1937 after its disbandment in 1919, and renamed in 1940.

[11] Incidentally, one of No. 75 Squadron's earlier missions in the war involved a reconnaissance by a lone Wellington bomber which flew 14 1/2 hours from Scotland to Norway and back to check on the presence of German naval vessels in Narvik Fiord (after the city of Narvik was seized by German forces during their invasion of Norway in

subsequent squadrons designated ‘New Zealand Squadrons’ formed within the RAF during World War II. New Zealand was also represented by 24 squadrons in the Pacific Campaign of World War II: 9 bombers, 13 fighters and two maritime squadrons.

Post-World War II deployments of New Zealand strike squadrons have been made to Japan, Cyprus,[12] and Singapore. The RNZAF strike squadron based in Singapore played an active role in the RAF air strike campaign against communist terrorists in Northern Malaya (1948-1960) as part of the British Commonwealth Far-East Air Force. Between 1964 and 1966, New Zealand again based a strike squadron in Singapore as part of the British Commonwealth build-up of forces to counter Indonesian insurgency into the newly formed ‘Federation of Malaysia’.

In more recent years, New Zealand continued to deploy and exercise strike aircraft in Malaysia and Singapore on an annual basis as part a contribution to mutual confidence building, transparency and deterrence in the region.

Overall, for a small and relatively isolated country, New Zealand through the 66 years of RNZAF existence has amassed a proud history in the application of air strike in a variety of theatres.

The A-4K Skyhawk

For the past three decades, the RNZAF air strike capability has been vested in the McDonnell Douglas A-4 Skyhawk – of which New Zealand has had a total of 24. The first arrived in 1970 and the entire fleet was upgraded to the ‘A-4K’ in the late 1980s. The upgrade brought the fleet up to a standard incorporating the APG-66 (NZ) multimode radar, the AIM 9L ‘Sidewinder’ air-to-air missile, the AGM-65B (TV guided) and ‘G’ (Infra-red guided) ‘Maverick’ air-to-surface missile, in addition to the pre-existing rocket, cannon and a precision bombing capabilities.

Fighter lead-in training was carried out on a squadron of 17 MB-339CB Macchi aircraft purchased new in the early 1990s.

While radar and Sidewinder offered a basic but credible air defence capability, New Zealand’s operational emphasis was on surface attack. The expressed role of the Air Combat Force were close air support (CAS), air interdiction (AI) and maritime strike (anti-surface warfare (AsuW)). Counter air was confined significantly to self-defence.

April 1940) paving the way for the successful Allied mission to resecure the city. John Thompson, *Warrior Nation: New Zealanders at the Front 1900-2000*, Hazard Press, Christchurch, New Zealand, 2000, p. 272.

[12] Over the period 1952-1955 to fulfil obligations undertaken in 1949 regarding the prospect of war with the Soviet Union.

The Disbanding of New Zealand's Air Combat Force

In 1999 the then Government of New Zealand negotiated a deal with the US to buy 28 F-16A/B aircraft to replace the A-4K.[13] Twenty-two previously unused aircraft were to be brought into service, with the remaining six aircraft to be broken down and used as spares. The first of the F-16 aircraft were scheduled to replace the A-4K aircraft in mid-2001.

Following the November 2000 elections, a new government reviewed the plan and announced that the F-16 purchase would not proceed. This reopened the question of how to deal with the looming 2007 obsolescence for the A-4K fleet. In June 2000 a Government review of the future of the Air Combat Force was commenced, and on 8 May 2001 the Government announced that the Air Combat Force would be disbanded.

Finally, on 13 December 2001 the Air Combat Force comprising Numbers 2, 14 and 75 Squadrons was officially disbanded. The 34 aircraft (Skyhawks and Macchis) were put up for sale and 700 jobs were identified for possible dissolution.

Environmental Factors at the Time of the Decision

Before discussing the rationale behind the cancellation of air strike and the future vision for the Air Force, it will be necessary to consider key environmental factors within which the decisions were made and the transition commenced. These key factors were geo-strategic and economic.

Geo-strategic Factors

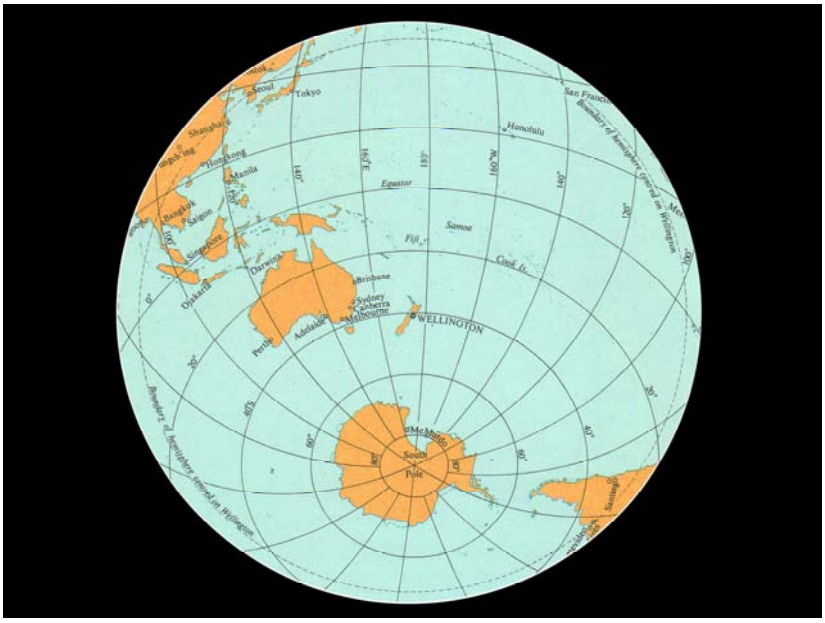


Figure 1. The World Viewed From New Zealand

New Zealand has the world's largest moat. Figure 1 is a view of the planet as New Zealand sees it. New Zealand does not have borders with other countries. The nearest land mass is two thousand kilometres away and it takes three and a half hours to fly to the nearest non-English speaking islands. With the possible exception of the arrival of Europeans in New Zealand, the

[13] The F-16 package comprised 13 single-seat A-models and 15 B-model trainers. They were built in 1991-92 to the Operational Capabilities Upgrade (OCU) standard and stored new at Davis-Monthan Air Force Base in Arizona. The F-16s were to be leased over two five-year periods at NZ$12.5 millon (US$7 million) per year with an option to buy at the end of the lease period. The support package and activation charges totalled around NZ$200 million (US$111 million). Michael J Gething, 'New Zealand Cancels Kahu II Upgrade for Skyhawk Fleet', *Jane's International Defense Review*, Volume Number 32 February 1999, p. 62.

country has never been invaded. It is distant from the major sources of international conflict today and its geographical position in the world is of little strategic value under just about any criteria.[14]

In essence, New Zealand views its strategic environment in three distinct areas: New Zealand and its immediate environs, the South Pacific and the Rest of the World. New Zealand is not likely to face a direct threat of military invasion. A range of other contingencies such as terrorism and illegal immigration are, however, quite conceivable.

The South Pacific security environment, like New Zealand, is largely characterised by the absence of external military threats. Notwithstanding, there are a host of possible triggers for civil instability,[15] and recent problems including the civil conflict in the Solomon Islands and the attempted overthrow of the government in Fiji (both events in 2000) – not to mention the war in East Timor – are testament to that reality.

Of course, 'the rest of the world' is a different case, encompassing all manner of possible inter- and intra-state crises. New Zealand enjoys, importantly, some significant privilege in engaging in the crises of the rest of the world on a largely discretionary basis. Such engagement is frequently made; sometimes for altruistic reasons (for example, humanitarian) and sometimes for wider 'national interests' – but usually with elements of both. New Zealand maintains the sovereign right to pick its fights and has significant latitude to do so by accident of geography. The South Pacific is of specific interest to New Zealand because of its proximity (Auckland is the largest Polynesian city in the world).[16] The rest of the world is of more *general* interest, and judgement is applied in how and when New Zealand pursues its national interests.

While New Zealand – like most countries – sees security of its sovereign territory as its first defence goal, it has had more difficulty than most nations defining what threat to home security there is that needs to be structured against. Therefore, the New Zealand geo-strategic situation has led, over the years, to New Zealand adopting a very outward-looking and even expeditionary approach to its security.

New Zealand's trading dependencies and the vulnerability of its tiny economy are amongst the factors that have led it to see its wider regional security as being important to its welfare. As is said in New Zealand, 'when Asia sneezes, New Zealand catches a cold'. Relatively minor disturbances in the Asian economies in the early 1990s (coined the 'Asian Economic Crisis') were significant contributing factors in a 20 percent dip in the New Zealand currency exchange rate against the US dollar, from which New Zealand is incidentally still recovering. It is expected that the effects of any war in the region would dwarf these figures and any intervention or contribution towards the avoidance of such a crisis is therefore an important part of the strategic calculus behind a military force.

The drivers in military force capability selection therefore are based not on having to defend New Zealand sovereign territory but on maintenance of options to engage with friends and

---

[14] *The Defence of New Zealand 1991: A Policy Paper*, (New Zealand Government white paper), 1991, pp. 16-22.

[15] Including population growth, ethnic and financial tensions, widening socio-economic disparities, governance failures and corruption, and the impact of global trends such as trans-national crime and illegal immigration.

[16] New Zealand has constitutional obligations to the Pacific Island groups of Tokelau, the Cook Islands and Nuie (as well as a friendship treaty with Samoa) which extend to security matters. It also recognises the value of immediate regional security and judicious political and military intervention to assist in this. And it recognises that other security threats in New Zealand's 'backyard' have the potential to affect it through a third party nation (like smuggling, trans-national crime and piracy).

neighbours in peacetime, and assist with military intervention in times of tension. Any need to think along lines of maintaining indigenous, self-sufficient, self-protection forces would favour a 'balanced' air force (and Defence Force). However, this by virtue of geography and history would seem less imperative for New Zealand than many like countries, offering scope for other rationales to capability selection.

The relatively benign situation over the long-term has affected both New Zealand's politics and its national threat perception. While the majority of New Zealanders have demonstrated their appreciation of the importance of an air combat capability by survey, the appreciation does not appear to extend to a deep conviction. In general, the New Zealand public do not perceive a real threat of invasion – the great majority have not directly experienced insecurity associated with conflict – and this, as one would expect, is borne out in the politics and force capability decisions of its government.

Self Defence?

One other relevant factor here is that, if New Zealand *were* invaded by a significant force, it simply could not defend itself. As the 1991 Defence of New Zealand White Paper put it:

> New Zealand and its interests cannot be defended solely by our own efforts. Our instinct … has been to join with others, to seek a collaborative process.[17]

New Zealand would depend on the assistance of other nations to defend her sovereignty in the event of a credible and concerted territorial threat.

Contributing to international security on a discretionary basis which, incidentally, also earns an expectation of reciprocal military assistance in any future New Zealand crisis, is an altogether different set of requirements than would necessarily demand an Air Combat Force. The aims might well benefit by the use of an Air Combat Force, but there are other force capability options that would also fill the criteria. Modern 'second tier' capabilities deployed broadly and frequently may serve better than 'first tier' capability held in reserve but seldom if ever deployed in anger.[18] This perspective affords New Zealand significant latitude in deciding force composition.

Alliance Commitments?

Another geo-strategic/ geo-political factor at play in the background of New Zealand's thinking is the absence of any binding commitment to a major military alliance. Norway for example – a nation of similar size and population to New Zealand – has such alliance commitments, with the concomitant pressures to contribute to and conform with the military expectations of other partners within NATO and other international bodies, in return for certain benefits. New Zealand is not formally part of any such body.

New Zealand's participation in the ANZUS Treaty (between Australia, New Zealand and the United States) was suspended in 1986 following differences in policy stance between New Zealand and the US in respect of nuclear weapons. After eighteen years of New Zealand being 'out in the cold', the relationship has inevitably been affected. According to Colin Powell, New Zealand is 'very, very, very good friends' with the US, and it continues to work closely in

[17] *The Defence of New Zealand 1991: A Policy Paper*, pp. 18-19.

[18] By 'first' and 'second' tier we borrow from special forces lexicon to mean front line combat roles (first tier) versus combatant roles one step removed from the leading edge activities of the operation (second tier).

military operations, but the two countries do not combine in peacetime activities such as military exercising.

In lieu of such formal relationships New Zealand works hard to maintain the excellent bilateral relationships (for example, through a host of Closer Defence Relationship (CDR) measures taken with Australia) and multi-lateral relationships (for example with Britain, Malaysia, Singapore and Australia within the Five Power Defence Arrangement centred on the Malaysian Peninsula). However, none of these constitutes a formal alliance within which New Zealand might sense force structuring obligations.

In summary, New Zealand places defence of its sovereign territory foremost in priority. However, a threat to New Zealand's sovereignty is difficult to identify. New Zealand's security has therefore been defined in broader terms. New Zealand looks primarily to the security of its 'buffer zone' in the South Pacific, planning to assist with a host of relatively low level contingencies. Beyond that, involvement with the crises of 'the rest of the world' is taken on a frequent, but discretionary basis. While an Air Combat Force could make a major contribution to New Zealand aims, it has been by no means the only option. It has been assessed by Government that New Zealand can still make credible contributions from a selection of other military capabilities.

Economic factors

The economic environment at the time of the Air Combat Force cancellation has also been highly relevant.

There are two points to note:

a. the small size of the New Zealand economy and its capacity to afford a modern comprehensive and balanced defence force, and
b. some expectation of a post-Cold War 'peace dividend'.

First, New Zealand has low economic capacity for a broad and comprehensive military force structure. It has a population of just 3.84 million people. It has a low birth rate and a rapidly ageing population, leading to a shrinking workforce and taxpayer base and rising social costs. These factors are among those leading to the government pressure through the 1990s – not just on Defence but on other departments such as Health, Education and Social Welfare. The reforms in each of these government departments in New Zealand have been radical, and are ongoing.

One of the consequences for Defence has been searching questions on whether the historical breadth of capability held remains sustainable or whether the limited dollars should be used to establish a higher level of capability within a narrower range. The risk of the former option is a poor state of equipment modernisation which allies consider a liability in the battlespace. This would defeat New Zealand's aims.

> Defence policies which are not fiscally sustainable are unlikely to be seen as worthwhile by the public, by our friends and by the others whom we wish to influence.[19]

[19] *The Defence of New Zealand 1991: A Policy Paper*, p. 19.

The second point, which amplifies the effects of the first, is that the end of the Cold War – along with the subsequent mass down-sizing of large forces (British and American in particular) and the dismantling of non-conventional weapons arsenals – created at very least a tacit expectation of a 'peace dividend'.

Estimates from SIPRI show that military expenditure in Western Europe dropped 14.2 percent, over the period 1991 and 2001. [20] [21] Reductions in New Zealand expenditure have been similar.

To compare New Zealand with Norway as a NATO nation of similar size: over the period 1990 to 2000, Norway's military expenditure fell from 2.8 to 1.8 percent of GDP. New Zealand's fell comparably from 1.8 to 1.0 percent.
However, due to a difference in GDP performance, New Zealand's reduction represents a 12.7 percent drop in local currency terms where Norway's figures in Kroner over the same period, according to SIPRI, actually went up.[22]

The other important factor for New Zealand over the period was the effect of poor exchange rate performance. New Zealand's military expenditure reduced by 28 percent in constant US dollar terms – not an insubstantial factor when the five major operating aircraft types and most of the proposed acquisition programmes were American. Norway's expenditure by comparison reduced by just 2.5 percent in the same terms.[23]

What is additionally not so obvious from the figures is that between 1990 and 1996, military expenditure in New Zealand dollars reduced by over 25 percent. This is perhaps more indicative of the true extent of the overall funding shock (partially masked by a degree of subsequent plateau and recovery). The effects of the slump persist in the ongoing re-rationalisation of New Zealand Defence.

The peace dividend pressure coinciding with the period of wider economic rationalism in the public sector produced a difficult economic environment for Defence.

The timing for funding pressure was critically unfortunate. Block obsolescence of defence equipment was looming around the 2005-2010 mark (including the A-4K, C-130s, Boeing 727s and utility helicopters; not to mention naval assets like the Leander Class Frigate HMNZS Canterbury, and land assets such as the Armoured Personnel Carrier fleet. At least some of the crisis was attributable to inadequate lead-time planning. In any case, however, pressure to find extra funding was rising at the very time that the other pressures to reduce Defence spending were also at play.

In large complex forces, like those of the US and the UK, peace dividend-inspired cuts resulted in base closures and numerous individual unit disbandments. To small forces like New Zealand, there is only one squadron in each role and there was no flexibility to shave one or two off the inventory without losing a role. Massive infrastructural changes were made, but the options for

[20] From US$211 billion to US$181.
[21] At constant 1998 prices and exchange rates. SIPRI (Stockholm International Peace Research Institute) Yearbook 2001: Armaments, Disarmament and International Security, Oxford University Press, 2001, Table 4.1, p. 226 (figures updated with reference to SIPRI 2002 analysis promulgated at www.sipri.se, 8 December 2002).
[22] Statistics derived from SIPRI Yearbook 2001 (updated with reference to SIPRI 2002 analysis promulgated at www.sipri.se, 8 December 2002).
[23] ibid.

avoiding the loss of a role were limited.[24] In a total defence budget of around $1.4 billion New Zealand dollars, the Skyhawk absorbed $233 million in the 2001 financial year. To stay within extant funding levels it became increasingly unavoidable that at least one such NZDF capability needed to be considered for cancellation. This had been mooted as early as 1996-97.

In summary, all western militaries faced cuts during the last decade and each has had to respond to the pressures and make hard decisions. New Zealand's difficulties have been exacerbated by economic rationalisation in the public sector and looming block obsolescence of equipment. New Zealand is not alone in making hard decisions involving drastic cuts in the post-Cold War environment. However, New Zealand's particular economic circumstances have lead to a markedly higher amount of economic pressure than many other countries.

Under significant financial constraint in the process of defining its future force capabilities, New Zealand has found adequate rationale for a security posture that does not include an air combat capability.

While this choice has reduced New Zealand's flexibility of response and its combat utility to allies, the Government recognises reasonable indications that this path is viable within New Zealand's unique circumstances.

The RNZAF Position as an Air Force

Given the imperatives discussed above the question is now, without an air combat capability, whether the new shape and future of the RNZAF makes sense against the latest assessments of the evolving security environment.

There are two dominant themes in the current security scene which every small nation needs to account for in its selection of capability: *terrorism* and *coalition*.

Shaping Up to Counter Terrorism

New Zealand sees terrorism as a significant new horizon for Defence. This is verified by the analysis of many like-minded nations, including the UK through last year's update to its 1997 Strategic Defence Review. In July 2002 the UK Ministry of Defence made a presentation to Parliament of 'The Strategic Defence Review: A New Chapter'.[25] If the significance of the new

[24] New Zealand Government policies to reduce public spending and carry out a further review of Defence Strategy in 1991, pushed the Air Force into a process of radical reformation, much of it in its detail initiated by the New Zealand Defence Force (NZDF) itself in response to the tightening budget. The Air Force Stores Depot at Te Rapa was closed in 1992. Flying Training based in RNZAF Base Wigram in Christchurch (since 1916 under various institutional banners) moved to RNZAF Base Ohakea in 1993. RNZAF Base Wigram was closed in 1995, as was the base in Shelly Bay, Wellington. Later in the 1990s the Hobsonville half of RNZAF Base Auckland which was home to all Rotary Wing operations closed and helicopter operations were relocated to RNZAF Ohakea. It has subsequently been announced that, after extensive review by both Defence and Government, the other major part of Base Auckland (Whenuapai) will close, probably in 2005, with all Air Transport and Long Range Maritime Patrol Assets relocating to RNZAF Base Ohakea. The relocation to Ohakea will be accompanied by a substantial amount of redesign, reconstruction and renewal of infrastructure on the Base. In the continuing drive for better efficiencies, commercialisation of non-core activities commenced in 1992 and continues today (e.g. catering, aircraft maintenance and motor transport). During the early 1990s, the personnel strength of the Service fell from 4200 which had been maintained from the 1950s to the 1970s, to around 3500. An increasing number of jobs within the Air Force have been civilianised. The CT-4B Airtrainers have been disposed of (to Pacific Aerospace Company Limited) and improved an improved model (the CT-4E Airtrainer) has now leased. Altogether, the 1990s have seen the most dramatic changes in the history of the RNZAF since post-World War II reconstitution.

[25] Cm 5566 Vol II, *The Strategic Defence Review: A New Chapter – Supporting Information and Analysis*, Ministry of Defence (UK), July 2002.

threat is not already apparent, this document is an important flag to the future from a non-American source.
New Zealand recognises that the era of interstate warfare ended with the demise of the Cold War. The new threats are the collateral effects of intra-state war and of criminal activities associated with them.

There have been 56 separate major armed conflicts in 44 different locations in the 11 year period (1990 to 2000) since the end of the Cold War.[26] In the year 2000, 25 of those conflicts were still in progress, and every year there are new conflicts emerging. Only two of the wars ongoing in 2000 were interstate conflicts (occurring between India and Pakistan and between Eritrea and Ethiopia).[27]

There is a catch-cry in Defence that one should not be too quick to assume the world has changed, and restructure to a new threat only to find that the age-old predictabilities are still relevant but momentarily suppressed. However, planning for the likes of another World War is perhaps just as flawed, and the danger of focussing New Zealand's capability selection processes on the scenarios of past conflicts may leave it badly prepared. The pattern of interstate conflict which peaked in the form of the World Wars took six thousand years to evolve. There is reducing reason to believe that wars on the scale and intensity of World War II are a permanent rather than passing feature or mode of war.

The emergence of the nation state is a relatively recent invention, not occurring until the late 18th century. It is quite conceivably just a 'phase' we were going through. As Martin van Creveld wrote somewhat prophetically in 1991 in 'The Transformation of War':

As the second millennium A.D. is coming to an end, the state's attempt to monopolize violence in its own hands is faltering. Brought face to face with the threat of terrorism, the largest and mightiest empires that the world has ever known have suddenly begun falling into each other's arms.[28]

Eleven years later the rise of sub- and supra-national groupings as key perpetrators of violence is highly apparent. The world is now a vastly more complex place as more old and emerging non-national groupings start bidding for a voice in the new global context. The basis for war, and the very nature of war, may well be in transition. This does not mean necessarily that New Zealand should entirely discard the old equipments, but it must consider allowing discrete but radical shifts in its force composition and operations to keep its military relevant.

As one commentator has put it rather provocatively, the danger is that:

… the situation today, at the beginning of the 21st century, is much the same as it was 100 years ago … that today's generals are no more prepared for this century than their feather-hatted counterparts at the turn of last century. In the rush to achieve technological superiority – and

[26] A major armed conflict in this context is defined as one 'resulting in the battle-related deaths of at least 1000 people in any single year and in which the incompatibility concerns control of government, territory or communal identity. SIPRI Yearbook 2001, p. 15.
[27] ibid., p. 52.
[28] Martin van Creveld, *The Transformation of War*, The Free Press, New York, 1991, p. 192.

there's no doubting America's absolute domination in this respect – Western military leaders have been bypassed by a new world which shows no respect for last century's 'rules of war'.[29]

New Zealand needs to ensure agility in its thinking about military capabilities. There is uncertainty about the utility of air strike (relative to other military capabilities) in meeting the challenges of terrorism. We are at risk of showing failure to have learned the lessons from the partisans in Europe during World War II, and of many intra-state wars since. Each time modern, heavy, conventional, regular and state-owned forces took on committed, well organised, lightly armed, street-smart partisans or insurgents, they lost, often embarrassingly.[30]

Where disaffected political sub-groups practicing terrorism are embedded in populations and without identifiable state sponsorship or assets, targets reachable by air strike may become increasingly difficult to identify let alone achieve. While counter-force air operations have shown some utility for special forces coordination work on the ground in Afghanistan, counter-force in general is not well placed against the wider terrorist paradigm.

It may be that the new 'sharp end' of air power is not strike, but intelligence, surveillance and reconnaissance (ISR). For 'targetable' regimes such as the Taleban in Afghanistan, strike continues to be of significant utility – although perhaps in new ways. However, what really stifles terrorists (hiding within civilian populations) such as Al Queida, is the exposure of their plans – knowing who they are, where they will strike and how, and then being able to monitor target areas in search of the warnings, indicators and would-be perpetrators. For air power this ISR is the realm in which New Zealand's P-3Ks (Orions) rather than A-4Ks operate.

Terrorism begs a coalition remedy. The growing threat operating somewhere between the realms of police and military forces requires a new unity of purpose by those defending themselves, unity in the form of multi-national and multi-agency coalition.[31] The United States has been at great pains to annunciate this. This brings us to the other major and continuing trend in the international security arena.

Creating Value in Coalition

The second, and largely unrelated, factor likely to endure into the New Zealand security future is that of coalition.

New Zealand's preferred, and arguably its *only* viable mode of operation has been through coalitions of the willing. This involves offering tactical-level 'force modules' that can be easily integrated into larger formations. The value that New Zealand offers to coalitions has traditionally been well-trained, professional modules of capability – a flight of Iroquois, a pair of P-3Ks, a company group of infantry, a frigate, and so on. The modular approach to coalition participation, by any other name, is New Zealand's *modus operandi*, and it works. Effective coalitions are made up of quality force elements, glued together by interoperable C4I (command, control, computers, communications and intelligence).

Contributing to coalitions is the only effective way, actually, for small nations to exercise their national will through might. Where they lack the independent means to push their own barrow,

---

[29] Chris Murphy, e-mail commentary after an article by James Fallows in *The Atlantic Monthly*, 8 January 2003, which featured the content of an e-mail exchange between authors Robert Coram and Donald Vandergriff.

[30] Air Marshal Bruce Ferguson, unpublished address to Pacific CHOD (Chiefs of Defence Forces) Conference, 2002.

[31] ibid.

they *can* have the means to assist with the pushing a similar barrow which is going their way. In return, besides a supplemented force, coalitions get the sometimes significant political value of a rapid and supportive response from another sovereign nation – another flag on the table. For example, in early 1998, New Zealand deployed two P-3K Orions to Diego Garcia in the Indian Ocean in support of having weapons inspection teams reinstated to Baghdad after their expulsion by Saddam Hussein. There were only six flags on the coalition table and New Zealand's offer of a contribution was, politically, extremely well received amongst them – well beyond proportion to its military significance.

As a very small country, New Zealand has not been in quantitative terms a major ingredient in many coalition mixes. However, often just by being there – quickly, fully committed, and with a quality contribution, however small – significant political and operational benefit can be gained by both host and small nation alike.

If one concedes that coalition operations are a crucial element of New Zealand's defence strategy, and that coalitions benefit greatly by the timely provision of quality force modules and political support, then this will have ramifications for force capability architects.

Given New Zealand's lack of clear imperative to structure exclusively for the defence of the homeland, it can look instead to what capabilities will have the greatest utility in coalitions. It is by optimising its Defence Force to this purpose, within financial means, that New Zealand buys significant options for advancing its national interests – by being able to selectively support coalitions when the objectives are in alignment with New Zealand's, and other circumstances are suitable.[32]

The trick of course is that, because coalitions are unique formations (as opposed to alliances), there are many uncertainties about *what* will be the most consistently valued capability contributions.

This brings us in general terms to the definitions of 'asset' and 'liability'.

TEAM 'ASSET' VERSUS 'LIABILITY'

Any New Zealand commitment to a coalition must generate real military 'value'. Recent, successful coalition operations have highlighted the fact that coalition contributors are assets when they add value to the achievement of coalition outcomes. They are usually liabilities when they do not, and liabilities do not get policy 'pay-off'.

The basic prerequisites to being an asset and adding value are:

- Self-deployment (even if by non-military means);
- Self-sustainment;
- Interoperability (in both technology and performance (in tactics, techniques and procedures)); and
- Bringing something that the coalition needs or does not have enough of.

[32] By New Zealand's 'national interests' we refer in general to matters such as: preservation of small nation sovereignty, containment of Weapons of Mass Destruction, prevention of genocide, preservation of human rights, establishment and maintenance of regional stability, assistance to victims of natural disaster, promotion of democratic principles, growth of trading relationships and so on.

Liability occurs when would-be coalition contributors arrive in theatre expecting other partners to equip, train, sustain or complete their contribution. Every joule of energy diverted into propping up a weaker partner is a joule of energy not flowing into the primary military objectives. Liabilities risk the outcomes.

Increasingly, employment doctrine for coalition operations stresses minimal forward footprint and 'reachback' logistics. Partners do not therefore configure to support beyond their own needs, just in case another contributor might need help. A healthy degree of self-reliance is essential.[33]

The issue of asset versus liability again causes New Zealand to consider carefully the matter of breadth versus depth in force capability. Spreading finite resources thinly causes sub-optimal resourcing of individual elements. New Zealand has evaluated its spread as too thin.

Air combat capabilities are by far the most resource-intensive air roles in which to maintain 'asset' status. This is particularly the case for small states seeking to retain capabilities that are combat viable with each new generation of technology. As stated in New Zealand's 'Strategic Assessment 2000':

> The United States will remain for the foreseeable future the predominant power in the world. The US embrace of the revolution in military affairs (RMA) will make it difficult for even its closest allies to keep pace with it, let alone its adversaries.[34]

New Zealand spent NZ$233 million on Skyhawks and fighter lead-in Macchis in 2001. With capital charges and depreciation figured out of the overall budget, this represented over 20 percent of the total Defence budget. It was the most expensive force element maintained in the NZDF. And the extra capital injection required to purchase F-16A/Bs would still not have stopped New Zealand slipping behind with the introduction of fifth generation aircraft – like Eurofighter or JSF (Joint Strike Fighter) – such as Norway is contemplating.

In some ways, if remaining a coalition asset is a priority, small nations of circumstances like New Zealand's are simply being priced out of the air strike market. New Zealand has proven that it does air strike well, through operations and competitive exercises over the decades. However, it would have struggled to keep up with the financial demands of the high pace of modernisation demanded within this role.

The cynic might say, in poker terms, the stakes got too high for New Zealand's tiny economy and, even with a good hand New Zealand had to fold. Keeping a degree of technological parity with the superpower will be less expensive in other roles and capacities, especially with the re-appropriation of funding from the strike role.

In summary, the rationale for New Zealand's current military capability posture reflects current thinking about future security situations characterised by terrorism and coalitions.Terrorism is a dominant new factor in New Zealand's security scene, and one perceived by New Zealanders to be much more relevant than the traditional threats of territorial invasion. The utility of air strike against terrorists is unclear. It is likely, however, that the more useful capabilities are in the ISR realm – seeking to uncover terrorists and their plans and activities, rather than to punish them

---

[33] Air Marshal Bruce Ferguson, unpublished address to Pacific CHOD (Chiefs of Defence Forces) Conference, 2002.

[34] *Strategic Assessment 2000*, External Assessments Bureau, New Zealand's Department of Prime Minister and Cabinet, Wellington, 2000.

after the act. The rise of terrorism, and the absence of targetable infrastructure for this emerging enemy, offers no particular support for the preservation of an air combat role.

Coalitions are New Zealand's preferred, and indeed only viable military *modus operandi*, particularly at the higher end of the combat spectrum (the end to which strike aircraft are optimised). There is significant symbiosis in the partnership between lead nations and other contributors in such arrangements: small nation interests in return for potentially very significant political support, plus minor force supplementation. The overwhelming imperative for small nations is to achieve 'asset' status, and to avoid 'liability' status.

This means for New Zealand, a hard look at the breadth of capabilities it might want to spread its finite resources over. There is a real risk for small nation defence forces in trying to maintain a full or balanced range of conventional military capabilities without the necessary resources to do so in an increasingly sophisticated and expensive industry, that they may actually become a liability to themselves, and the coalition.

The Future of Air Power in New Zealand

Continuing Commitment

Before concluding, it will be relevant to:

- briefly demonstrate New Zealand's military engagement in world crises beyond the Air Combat Force.
- headline the development plan for the remaining roles.

The cancellation of the Air Combat Force does not signal any kind of retrenchment or withdrawal of New Zealand from the international security scene. There is no doubt that it reduces the specific roles of the RNZAF. But, if anything it signals intent to maintain and improve Defence Force levels of contribution through the capacity to keep remaining assets better prepared for frequent and valued international contributions, within and without coalitions.

New Zealand remains highly active in its international military engagement. It is currently ranked 20th in the world in terms of its commitment to UN operations, despite its size.[35] Until November 2002, with the conclusion of operations in East Timor, some 16 percent of the NZDF was situated abroad in 19 countries.

Table 1 shows the involvement of New Zealand in conflict resolution, mainly through the UN, over the period World War II to the end of the Cold War. The missions in italics are the ones still running. Table 2 shows the military involvement of New Zealand in conflict resolution since the end of the Cold War. The longer-term engagements for elements of the RNZAF since the end of the Cold War are shown in Table 3:

NZ Operational Service – 1945-1989			
OPERATION	**LOCATION**	**OPERATION**	**LOCATION**
J Force	Japan	UNIPOM	India/ Pakistan
Korean War	Korea	UNEF II	Sinai

[35] Air Marshal Bruce Ferguson, unpublished address to Pacific CHOD (Chiefs of Defence Forces) Conference, 2002.

UNMOGIP	India/ Pakistan	UNDOF	Golan Heights
Malayan Emergency	Asia	UNIFIL	Lebanon
UNEF I	Gaza	CMF	Rhodesia
UNOGIL	Lebanon	OP ARMILLA	Indian Ocean
ONUC	Congo	*MFO*	*Sinai*
UNYOM	Yemen	UNGOMAP	Afghan/ Pakistan
UNTSO	*Israel/Syria*	UNIIMOG	Iran/Iraq
Indonesian Confrontation	Asia	UNMCTT	Afghanistan
Vietnam War	Vietnam	UNTAG	Namibia
UNFICYP	Cyprus		

Table 1. **New Zealand Operational Experience – 1945-1989**

It is notable here that in the years between the end of World War II (1945) and the end of the Cold War (1990) the three NZ military Services played active roles in the resolution of a combined total of 26 conflicts. That is an average of just over one every two years. In the 12 years since 1990 New Zealand has taken part in the ongoing resolution of 40 conflicts. That is an average of over three per year.

The two deductions are that: first, the world is a much less certain place since the end of the Cold War with large numbers of small wars substituting small numbers of large wars. But more importantly to the topic of this paper, the tables show that New Zealand remains actively engaged in a huge number of international trouble-spots despite its size, remoteness and limited economic capacity.

Also forecast in Table 3 are the next round of planned deployments for Operation Enduring Freedom – a C-130 to Kyrgyzstan for tactical air transport in Afghanistan and a P-3K to the Middle-East for Maritime Interception Operations – both to commence around mid 2003.

NZ Operational Service – 1990-2003			
OPERATION	**LOCATION**	**OPERATION**	**LOCATION**
Gulf War	Kuwait	MIF	Arabian Gulf
UNSCOM	Iraq	OP GRIFFIN	Kuwait
UNAVEM II	Angola	IFOR	Bosnia
UNAVEM III	Angola	*SFOR*	*Bosnia*
MONUA	Angola	*SFOR A/E*	*Bosnia*
INAROE	Angola	UNTAES	Eastern Slovenia
UNAMIC	Cambodia	UNMOP	Prevlaka
UMIR	Rwanda	*UXOL*	*Laos*
UNTAC	Cambodia	TMG	Bougainville
UNMLT	Cambodia	*PMG*	*Bougainville*
UNOSOM	Somalia	UNOMSIL	Sierra Leone
UNOSOM 2	Somalia	*UNAMSIL*	*Sierra Leone*
UNITAF	Somalia	UNAMET	East Timor

UNPROFOR	Yugoslavia	INTERFET	East Timor
CMAC	*Cambodia*	UNTAET	East Timor
UNMIH	Haiti	*UNMIK*	*Kosovo*
ONUMOZ	Mozambique	IPMT	Solomons
MADP	*Mozambique*	*ISAF*	*Afghanistan*
UNPREDEP	Macedonia	*OEF*	*Afghanistan*
UNCRO	Croatia	UNMISET	East Timor

Table 2. **New Zealand Operational Experience – 1990-2003**

Where	**When**	**What**	**Why (Main NZ Strategic Interest)**
Iran/Iraq	1988-90	Andover (air trans.)	Good global citizenship
Gulf War	1991-92	C-130 Hercules	Sovereignty
Somalia	1993	Andovers	Humanitarian (poverty)
Rwanda	1995	C-130	Humanitarian (genocide)
Bougainville	1997-98	UH-1H Iroquois	Regional Stability
Gulf II	1998	P-3K Orion	WMD
Kosovo		C-130	Humanitarian (genocide)
East Timor	1999-2002	UH-1H Iroquois	Humanitarian (genocide)
Afghanistan	2002	C-130	War Against Terrorism
Afghanistan	2003*	C-130	War Against Terrorism
Middle-East	2003*	P-3K	War Against Terrorism

* Forecast

Table 3. **Long-term Deployments for RNZAF Elements Since 1990**[36]

Overall, the points of note here are:

a. New Zealand's demonstrable readiness to actively engage the world's issues militarily where it believes this justified, and
b. The relative lack of *visible* role played by air strike in the tables (with the exceptions of Japan, Northern Malaya and Indonesia up until the 1960s).

On the latter point, in 66 military operations over 55 years only three have involved air strike, and only one of those actual combat. Despite the rationale for conventional deterrence, the *intangibility* of air strike's role has not been irrelevant in the debate of whether to retain the capability.

[36] In addition, each of these missions and other non-air force missions has been supported and sustained by strategic air transport provided by the RNZAF's Boeing 727s, and the C-130s – for example, air transport support to the NZ Army contingent in Bosnia during 1994-1996. Further, while this table shows the longer-term deployments, there are scores more missions ongoing in the more normal mode of hours or days duration. These include such activities as: evacuation operations (including the evacuation of New Zealand nationals form the Solomon Islands in 2001 after civil clashes in the country); patrolling of the Southern Ocean and EEZ for fisheries protection and SAR; medevac (including assistance with evacuation of victims of Bali bombing in 2002); humanitarian in the Middle-East (example, aid and evacuation flights to Jordon during t

Development

The realisation of a new vision for the NZDF is underway. The Long Term Development Plan describes the major acquisition projects over the next ten years. One billion New Zealand dollars of extra capital will go into Defence over this period. The plan includes the following:

a. **P-3K**. A major upgrade to the surveillance systems: radar, electro-optics, electronic surveillance and communications systems. A Request for Tender is due to be issued in April 2003. The first prototype is expected in 2005/06.
b. **Boeing 727**. The two Boeing 727 strategic airlift assets will be replaced by Boeing 757s. The first will be in service by late April 2003, the second in late May 2003.
c. **C-130**. An upgrade to aircraft structure, aircraft systems and fitting of CNS/ATM. A Request for Tender will be issued in April 2003 with the first airframe expected to be complete in 2005/06.
d. **Helicopters**. (Proposal only). Replacement of both the utility and training helicopter fleets. A report on the utility helicopter requirements is scheduled to go to Government in August 2003 with aircraft to be in service 2007/08.

None of these programmes interferes with ongoing studies and investigations into what capabilities should be preferred for their fit with New Zealand's geo-strategic circumstances or with its penchant for coalition operations. The growing importance of ISR is already well recognised and the continuous improvement of the P-3K (including possible overland operations) remains a focus. With similar intent, New Zealand has begun looking into the potential of a UAV capability for the future. Other capabilities such as air-to-air refuelling remain high utility/ high demand in modern coalition operations.

The bottom line is that New Zealand is now setting about raising the capabilities of its other air force elements (and other Service arms) to meet some of the objectives described in this paper.

Conclusion

After a long and proud history of providing air strike in support of New Zealand's strategic national interests abroad, the NZDF is no longer equipped with an Air Combat Force.

Today, New Zealand is no less subject to the norms of the international arena than yesterday, and no less vulnerable to the whims of those who would breach the norms. It is therefore no less focussed on the conflicts of the world, and no less inclined to engage in those through coalitions of the like-minded. It remains fully committed, obliged and active in the establishment, promotion and maintenance of the norms by which it stands to survive and prosper as a small sovereign country.

However, New Zealand has had to make hard choices about its spectrum of capability. Indeed, to achieve viable depth in preferred capabilities, it has had to reduce overall coverage to a narrower spectrum. There are risks inherent in this modernisation strategy, but nonetheless it is a strategy that reflects economic realities. As Chief of Defence Forces New Zealand has stated:

We make no apologies for the fact that we cannot field the full range of conventional, heavy military capability. We simply cannot afford it and that is a social and economic reality.

New Zealand's unique geo-strategic and limiting economic circumstances are among the many considerations to be taken into account by its Government. Additionally, New Zealand's security environment is characterised by two factors that are likely to have some durability into at least the medium-term future: *terrorism* and *coalitions*. As CDF New Zealand has said:
Building the future NZDF cannot be based on simply replacing existing equipment with more modern versions because the future strategic environment is likely to be so different, that the past will not be a path for defining future defence capabilities. This is uncomfortable because the path is not well trodden ... [but] we have to look forward to concepts that are only gradually revealing themselves to us, in order to build the realistic, durable and affordable defence capabilities that are shaped for and relevant to the future.

The Government decision is that a future without an Air Combat Force in New Zealand is viable. While there are very sound arguments for retention of the capability, there are also strong arguments for using the resources differently. The decision has involved a risk calculation to divert energy away from capabilities perceived as presenting low political utility and high operational risk, to those offering higher political utility (broad and frequent use) and lower operational risk. For now, the emphasis for the RNZAF is on capabilities of broadest and most frequent utility.

The RNZAF is not waiting for World War III. It is instead a daily event – advancing New Zealand's national interests in a proactive and expeditionary sense in places and times of both peace and conflict on a daily basis. Nothing has changed in this regard. New Zealand has a long record of international military engagement and collective security response. The fundamental changes are simply the concessions that have been necessary to retain a range of capabilities in the category of coalition 'asset' rather than 'liability'.

Rather than a balanced Air Force of mediocre capability, the hard decision has had to be made to narrow New Zealand's air power scope to preserve its proficiency and performance in the remaining capabilities. In this regard the RNZAF – and wider Defence Force – look forward to significant upgrade and acquisition programmes including surveillance, helicopter and fixed wing air transport platforms and systems in the immediate future.

Only time will tell, but New Zealand expects a net benefit out of redistributing its Defence dollars to capabilities of regular and far-flung utility in response to the world's crises where New Zealand's national interests are at stake.

HVA TRENGER VI ET NYTT KAMPFLY TIL?

Thomas C Archer

Innledning

Hva trenger vi et nytt kampfly til? Det må da være åpenbart vil nok mange i denne salen hevde – vi må jo før eller siden erstatte dagens aldrende F-16 med nye og mer moderne flymaskiner. All erfaring fra de siste års konflikter har vist oss at våre kampfly er et svært etterspurt ”produkt” når Norge skal stille styrker i internasjonale operasjoner. Dessuten må vi jo ha kampfly for å kunne være herre i egen luft. Vår erfaringer fra aprildagene 1940 viste oss hvor galt det kan gå hvis vi ikke har det. Og selv om gamle trusler muligens er borte, er det i lys av 11. september vanskelig å hevde at ikke nye har oppstått.

Det synes derfor innlysende at nye kampfly vil være både en nødvendig og god investering. Men er det egentlig det? Er argumentet om at vi har det i dag, og derfor må ha det i morgen, et godt nok argument for en materiellanskaffelse som vil koste norske skattebetalere flere titalls milliarder kroner? Jeg tror ikke nødvendigvis at så er tilfelle.

Analysen som lå til grunn for anskaffelsen av dagens F-16 tok utgangspunkt i en diametralt forskjellig sikkerhetspolitisk situasjon enn den vi har i dag. Sovjetunionen utgjorde den gang, på slutten av 1970-tallet, vår største sikkerhetspolitiske utfordring. Fokus var derfor rettet mot invasjonsforsvar og vår evne til å produsere nok ”holdetid” til å kunne motta allierte forsterkninger. Jagerflyene skulle primært benyttes defensivt, i et forsvar av luftrommet over norsk territorium, sekundært i en anti-sjø invasjonsrolle. Vi var en nettoimportør av sikkerhet, og kunne konsentrere oss om å beherske én rolle innefor et snevert definert scenario. Vi visste **hvor** og **hvordan** vi skulle krige. I alle fall trodde vi det. Samtidig regnet vi med å få tilstrekkelig varslingstid til at vi kunne være klar til strid **når** det var påkrevd.

I dag forbereder vi oss ikke lenger for den tredje verdenskrig og en massiv invasjon fra øst. Vi har ingen indikasjoner som tyder på at Norge i overskuelig fremtid vil måtte kjempe for sin eksistens i en total krig. Dette innebærer ikke at alle trusler mot norsk og europeisk sikkerhet er borte, men at de sikkerhetsmessige utfordringene har endret karakter. Vi lever i en global tidsalder, preget av usikkerhet, ustabilitet og uforutsigbarhet.

Dette gjør at utfordringene mot norsk og internasjonal sikkerhet er annerledes og mer diffuse og sammensatte enn før. Men er det nødvendigvis slik at kampfly er det rette svaret på disse utfordringene?

Som ”sjef” for Luftforsvaret er det selvfølgelig fristende å svare et ubetinget ja på dette spørsmålet. Hvis det er rett som enkelte har hevdet, at uten et kampflyvåpen kan vi like godt legge ned hele Luftforsvaret, ville det jo vært organisatorisk selvmord å svart noe annet. Grunnen til at jeg svarer ja på dette spørsmålet har imidlertid ikke noe å gjøre med frykten for å miste jobben. Jeg er nemlig av den bestemte oppfatning at det ikke er Luftforsvaret som har behov for kampfly, men Forsvaret som helhet og Norge som selvstendig nasjon. Hvilken organisasjon som drifter systemet blir i denne sammenheng irrelevant.

Kampflyvåpenet er i dag den definerende faktor for Forsvarets luftmaktskompetanse. En av konsekvensene av å ikke ha et selvstendig kampflyvåpen vil derfor være at vi mister avgjørende kompetanse innen luftmakt. Vårt behov for luftmaktkompetanse vil imidlertid ikke forsvinne selv om Norge ikke har et eget kampflyvåpen. En annen konsekvens vil være at vi ikke lenger blir i stand til å utdanne ledere med den nødvendige bakgrunn og erfaring til å kunne lede allierte

luftoperasjoner – verken i en nasjonal eller i internasjonal kontekst. Denne mangelen vil ikke bare svekke Luftforsvaret, men også Hærens og Sjøforsvarets evne til å føre krig. Uten tilstrekkelig luftmaktkompetanse blir med andre ord Forsvaret som helhet i dårligere stand til å løse sine oppgaver.

Hensikten med dette foredraget er å beskrive hvorfor en investering i nye kampfly vil være vel anvendte penger for Forsvaret og nasjonen Norge. Med bakgrunn i tenkning rundt Norges fremtidige forsvars- og sikkerhetspolitiske utfordringer vil jeg forsøke å utlede hvilke egenskaper og kapasiteter det norske Forsvaret i fremtiden må besitte, samt hvilke oppgaver vi skal kunne bidra til å løse. Deretter vil jeg se nærmere på hvordan et nasjonalt kampflyvåpen passer inn i denne beskrivelsen.

Jeg vil gjennom foredraget komme inn på en rekke vurderinger som bør ligge til grunn når det endelige valget av fremtidig kampflytype skal tas. Dette må ikke forstås som et innlegg i debatten om hvilket jagerfly vi skal velge – amerikanske Joint Strike Fighter eller europeiske Eurofighter. Jeg vil nøye meg med å konstatere at vi har behov for et nytt kampfly, beskrive hvorfor vi har det, samt redegjøre for hvilke egenskaper og kapasiteter et fremtidig kampflyvåpen må inneha.

Norges fremtidige sikkerhetsutfordringer

Et bredere og mer sammensatt risikobilde vil prege Norges sikkerhetspolitiske omgivelser i fremtiden. Jeg vil i det følgende ta for meg tre forhold som jeg i særlig grad mener vil påvirke VÅR sikkerhet i årene som kommer; *globalisering, utviklingen innen NATO* og det jeg har valgt å kalle ”*nasjonale utfordringer*”.

Globalisering

Som beskrevet innledningsvis er Norge, sammen med resten av verden, inne i en periode som kan karakteriseres som den globale tidsalder. Den moderne globaliserte verden preges av usikkerhet, ustabilitet og uforutsigbarhet. Både politisk, økonomisk og kulturelt blir grensene mer utydelige, og Norge blir i stadig sterkere grad blir knyttet til det internasjonale samfunn. Dette fører igjen til at konflikter og kriger som i utgangspunktet virker perifere i forhold til norske interesser, kan få en indirekte virkning på vår sikkerhet.

Den pågående kampen mot terrorisme og internasjonale terrornettverk er et eksempel på hvor vanskelig det er å definere klare geografiske grenser for hvor norske militære styrker i fremtiden skal kunne settes inn. Luftforsvaret opererer i øyeblikket kampfly ut fra en base som ligger 4700 km fra Norge, i et land de færreste av oss hadde hørt om for et års tid siden. Dette illustrerer at vi ikke lenger vet nøyaktig *hvor* vi skal operere, neste gang vi skal ut å forsvare norske interesser og bidra til internasjonal fred.

Siden vi ikke vet hvor, blir det også vanskelig å vite *hvordan* den neste konflikten vi blir involvert i vil være. Militære organisasjoner har opp gjennom tidene blitt beskyldt for å forberede seg i forhold til hvorledes siste krig ble gjennomført. Historien bør imidlertid ha lært oss at det eneste vi med relativt sikkert kan si om neste krig, er at den vil være ulik den forrige. På samme måte som Kosovo-krigen var forskjellig fra Golfkrigen, er krigføringen i Afghanistan ulik det den var i Kosovo.

En rekke globale utviklingstrekk peker i retning av at det ikke blir siste gang vi sender styrker ut i internasjonale operasjoner. All erfaring tilsier dessuten at fremtidens kriger og konflikter vil fortsette å komme ”ubeleilig” og overraskende. Trusler kan oppstå og utvikle seg svært raskt og

uten særlig forvarsel, blant annet fordi ikke-statlige aktører kan true verdensfreden. Vi vil med andre ord også ha problemer med å forutse *når* vi vil måtte påregne å anvende militære maktmidler neste gang.

Utviklingen innen NATO
NATO vil også i fremtiden utgjøre en hjørnestein i norsk forsvars- og sikkerhetspolitikk. Utviklingen innen NATO vil derfor fortsatt være av avgjørende betydning for norsk sikkerhet og utformingen av fremtidens forsvar.

Det nye verdensbildet har ført til at NATO er i ferd med å endre seg til å være noe mer enn bare en kollektiv forsvarsorganisasjon. Alliansen væpnede styrker omstilles for å kunne møte et bredt spekter av oppgaver og utfordringer – både globalt og innenfor dets mer tradisjonelle interesseområde.

Endringsprosessene som startet med Berlin-murens fall, har for alvor skutt fart i etterkant av 11. september. Opprettelsen av en hurtig reaksjonsstyrke – *NATO Response Force*, innføring av en ny kommandostruktur, medlemslandenes forpliktelser i forhold til å forbedre egen og alliansens militære evne – gjennom de såkalte *Prague Capabilities Commitment*, samt utvidelsen med ikke mindre enn syv nye medlemsland, er alle eksempler på den pågående moderniseringen av NATO.

Skal Norge ha håp om fortsatt reell makt og innflytelse i NATO, er vi avhengig av å befeste vår stilling som et av de mindre allierte land som oppfattes som troverdig – både politisk og militært. Det oppnår vi trolig best gjennom å være blant de land som evner å bidra meningsfylt over hele spekteret av NATOs oppgaver. Det er blant annet derfor fremtidens norske forsvar må være alliansetilpasset.

Nasjonale utfordringer
Norge er i den privilegerte situasjon å befinne seg i et relativt trygt hjørne av verden. Sannsynligheten for en større militær konfrontasjon i våre nærområder må anses som lav, både på kort og noe lengre sikt. Det er imidlertid mulig å se for seg at konflikter og kriser av begrenset karakter kan oppstå.

Utfordringene i nordområdene øker snarere enn minker. Hvor nordområdene før var et militærstrategisk område, er det nå også et ressursstrategisk viktig område. Barentshavet er et spisskammer og trolig også et petroleumskammer. Håndtering av forholdet til Russland innebærer derfor fortsatt en utfordring for norsk sikkerhet.

Siden verdiskapningen i Norge i betydelig grad er knyttet til kontroll over og utnyttelse av de store ressurser som Norge besitter i form av kontinentalsokkelen og store havområder, blir vår evne til å kunne drive suverenitetshevdelse og myndighetsutøvelse særdeles viktig. Dette er særnorske utfordringer som vi må være i stand til ordne opp i selv uten alliert støtte.

Hvordan vil så denne situasjonsbeskrivelsen påvirke utformingen av fremtidens NORSKE forsvar?

Krav til fremtidens Forsvar
I sin nyttårstale i Oslo Militære Samfund tidligere i måneden, beskrev Forsvarsminister Kristin Krohn Devold hvilke krav Forsvaret blir og vil bli stilt overfor i årene som kommer:

> *"Kravet om høy mobilitet og deployerbarhet – og full interoperabilitet med våre allierte er helt grunnleggende. Og kravet om å kunne stille raskt med fleksible og tilgjengelige militære kapasiteter når behovet oppstår – her hjemme så vel som ute – er avgjørende"*

Forsvaret må med andre ord være i stand til å forflytte seg hurtig dit det trengs – når det trengs, både innen og utenfor landets grenser. Norge må ha militære virkemidler som på kort varsel er forberedt og i stand til å respondere mot et bredt spekter av kriser og konflikter som kan utfordre våre interesser i et stadig mer sammensatt, krevende og usikkert sikkerhetspolitisk landskap. Videre må vi ha teknologisk høyverdig utstyr, slik at vi kan fremstå som en troverdig alliansepartner som er villig til å dele risiko og byrder med sine allierte.

I hvilken grad vil nye kampfly kunne leve opp til disse kravene? For å svare på dette vil jeg kort presentere noen av kampflyets egenskaper, for deretter å knytte noen kommentarer til disse.

Kampflyets egenskaper
Noen av kampflyets mest sentrale egenskaper er disse:

- Hastighet
- Reaksjonsevne
- Overblikk
- Anvendelsesmuligheter
- Stor og presis ildkraft
- "Signaleffekt"
- Lav egeneksponering i operasjonsteatret
- Et "kontrollerbart" våpensystem

Evnen til å bevege seg hurtig i forhold til jordens overflate, kombinert med de anvendelsesmulighetene kampflyet har, gir det et stort potensial til å projisere militærmakt hurtig.

Kampfly kan forflytte en enorm militær slagkraft over store avstander i løpet av kort tid. Med militærtilstedeværelse i bare deler av landet, blir evnen til å forflytte mellom landsdelene viktigere. Kampflyets reaksjonsevne og hastighet gjør den til Forsvarets eneste troverdige manøverreserve.

Hva som hurtig kan forflytte fra landsende til landsende, kan vi også raskt forflytte til utlandet. Kampfly gjør oss dermed til en troverdig alliansepartner i en internasjonal så vel som en nasjonal dimensjon.

Det faktum at kampfly beveger seg i en viss høyde over jordens overflate, gir mulighet for større *overblikk* sammenliknet med land- og sjøstyrker. Ved hjelp av pilotens øyne og flyets avanserte sensorsystemer kan kampfly dermed være en viktig kilde til informasjon for beslutningstakere ved dramatiske episoder og kriser.
Kampfly har mange anvendelsesmuligheter, noe som gjør det svært fleksibelt. Kampfly kan bære en rekke ulike våpen – både store og små – som kan benyttes mot mål både på land, til vanns og i lufta. Kampfly kan brukes i offensive så vel som defensive operasjoner, innen hele konfliktspekteret og på alle krigens nivåer.

I dagens militære operasjoner godtas i stadig mindre grad unødige tap av menneskeliv, både egne og motstanderens. Kampflyets evne til å levere presise avstandsleverte våpen gjør det derfor til et

”politisk attraktivt” våpensystem. Utviklingen ser ut til å gå i retning av stadig større bruk av presisjonsvåpen, og at disse våpnene bli mer og mer presise. For eksempel kan det nevnes at man i Golfkrigen benyttet ti (10) fly for å ødelegge ett mål, mens man i Afghanistan kun benyttet to (2) fly pr mål.

Forsvarets fremtidige oppgaver

I Forsvarsministerens rammeskriv til Forsvarssjefens militærfaglige utredning 2003, beskrives de oppgavene fremtidens norske Forsvar skal være i stand til å løse. Oppgavene deles inn i ”nasjonale oppgaver”, ”oppgaver som løses i samarbeid med allierte” og ”andre oppgaver.” De to første kategoriene skal – som en balansert helhet – være styrende for Forsvarets strukturutvikling. Den siste skal ikke virke dimensjonerende for styrkestrukturen, men løses i den grad det er mulig med den strukturen som utvikles. La oss derfor med utgangspunkt i disse oppgavene, se nærmere på kampflyets mulighet til å bidra til løsing av disse oppgaver.

Nasjonale oppgaver

De nasjonale oppgaver er som følger:

1. Sikre nasjonalt beslutningsgrunnlag gjennom tidsmessig overvåkning og etterretning
2. Håndheve norsk suverenitet
3. Ivareta norsk myndighetsutøvelse på avgrensede områder
4. Forebygge og håndtere episoder og sikkerhetspolitiske kriser i Norge og norske områder

Nye kampfly vil på en rekke områder kunne bidra til at Forsvaret blir i stand til å løse disse oppgavene.

For det første vil kampfly gjennom sine sensorer kunne fremskaffe viktig og oppdatert informasjon fra et aktuelt område til lokale og sentrale beslutningstakere. God håndtering av dramatiske episoder i nordområdene forutsetter evnen til å komme dit raskt med minst ett par ”øyne”. Kampflyets hastighet og reaksjonsevne, kombinert med dets mulighet for å være en fremskutt og integrert sensor, gir det denne evnen.

For det andre vil kampfly ha evnen til å anvende en vidt spekter av virkemidler for avvisning av ikke ønsket aktivitet over eller på norsk territorium. Det være seg alt fra visuelle tegn og signaler, til bruk av våpen. Hvilken effekt bruken av disse virkemidlene har, kan raskt formidles tilbake til kommando og kontrollsystemet via plattformens nettverksbaserte systemer. Dette gir muligheter for god og direkte militærpolitisk håndtering av situasjonen.
For det tredje kan kampflyenes rekkevidde, mobilitet og spekter av virkemidler utgjøre et substansielt bidrag til andre enheter, både til sjøs og til lands, og deres evner til å drive myndighetsutøvelse.

For det fjerde vil en eventuell motstanders kunnskap om at vi innehar en kampflykapasitet i seg selv virke avskrekkende og episodeforebyggende. Egenskaper som reaksjonsevne, mobilitet, rekkevidde og evne til utholdenhet – enten ved fremskutt posisjonering eller støtte fra tankfly – er med på å gi kampfly denne forebyggende effekten. Kampflyet vil på kort varsel kunne håndtere hele krisespekteret fra avskjæring (lav intensitet) til våpenbruk (høy intensitet).

Kampfly er med andre ord en viktig forutsetning for at vi skal kunne effektivt drive suverenitetshevdelse og myndighetsutøvelse, samt håndtere episoder og sikkerhetspolitiske kriser i Norge og norske områder. Eller for å sitere Kommandøren for landstridskreftene, generalmajor Sverre Diesen:

> *"Dersom vi under en krise mangler evnen til å hevde suverenitet i eget luftrom, vil en motstander med meget begrenset styrkeinnsats kunne bringe oss i en situasjon der valget står mellom å tolerere en vedvarende demonstrasjon av egen maktesløshet eller å tilkalle allierte for å drive krisehåndtering på vegne av den norske regjering. Det er åpenbart en fullstendig uakseptabel situasjon for en suveren stat."*

Samarbeid med allierte

De oppgaver som Forsvaret skal kunne løse i samarbeid med allierte er:

1. Å bidra til kollektivt forsvar mot trusler, anslag og angrep, inkludert bruk av masseødeleggelsesvåpen.
2. Å bidra til flernasjonal krisehåndtering og flernasjonale fredsoperasjoner

Disse oppgavene vil kunne innebære bruk av alle aspekter av kampflyets roller og anvendelsesområder. At NATO ser på kampfly som en betydelig ressurs i forhold til å løse denne typen oppgaver hersker det liten tvil om. Som eksempel kan jeg nevne at kampfly med presisjonsstyrte våpen vil utgjør en betydelig andel av den totale styrken i NATOs fremtidige reaksjonsstyrke – NATO Response Force (NRF).

I scenarier på norsk jord der man kan regne med alliansens støtte fra første stund, vil man kunne regne med at de allierte vil komme tidlig inn med luftstridskrefter. Dette kan brukes som et argument for å nedprioritere et nasjonalt kampflyvåpen. Men om Norge må sloss alene, selv i en begrenset periode, vil et nasjonalt kampflyvåpen være uunnværlig.

Kampflyets første og muligens viktigste anvendelsesområde har tradisjonelt vært å bidra til oppnåelse av den ønskede grad av luftoverlegenhet, som igjen har sikret økt operasjonell og taktisk operasjonsfrihet for egne land- og sjøstyrker. Erfaringer har vist at operasjoner med land- og sjøstridskrefter er mest effektive når de skjermes av egen luftoverlegenhet. På samme måte vil det å operere mot en motstander som har luftoverlegenhet påføre egne styrker større tap og gjør egne operasjoner meget vanskelige eller umulige. Utviklingen vi har sett i løpet av 1990-tallet og i forbindelse med operasjonene i Afghanistan, tyder imidlertid på at viktigheten av flyenes/våpnenes penetreringsevne er økende; i forståelsen av at plattformene/våpnene overlever og når målet uten å først å måtte bruke tid på erobre den nødvendige grad av kontroll i lufta.

Kampfly kan bidra direkte i striden på bakken og til sjøs gjennom luft-til-bakke og luft-til-overflate operasjoner. I et fremtidig nettverksbasert forsvarskonsept vil kampfly være i stand til å fylle flere roller samtidig. For det første vil det gjennom sin store ildkraft utgjøre en meget potent *effektor*. Videre vil kampfly ved hjelp av sine sensorsystemer kunne fungere som en meget effektiv fremskutt og integrert *sensor*, og dermed være en meget viktig informasjonsformidler til andre effektbærere eller til militære- og politiske beslutningstakere. For det tredje vil et bemannet kampfly også kunne fungere som en *beslutningskomponent*, både autonomt og som en del av nettverket. Hvis nettverket skulle bryte sammen vil kampflyenes ytelse riktignok reduseres, men grunnet flyets autonome kapasitet vil det fortsatt inneha en betydelig restytelse.

Kampflyenes hurtighet og mobilitet – kombinert med slagkraft – gir deployeringsevne, og rask tilstedeværelse. Dette gjør dem til attraktive militære virkemidler i forbindelse med flernasjonal krisehåndtering og flernasjonale fredsoperasjoner.

Andre oppgaver
De såkalte ”andre oppgavene” Forsvaret skal være i stand til å løse er:

1. Å bidra med militær støtte til diplomati og til å forhindre spredning av masseødeleggelsesvåpen.
2. Å bidra til ivaretakelse av samfunnssikkerhet og andre sentrale samfunnsoppgaver

Kampfly har evnen til å støtte diplomatiet raskt gjennom hurtige deployeringer. En motstanders kjennskap til denne kapasiteten kan være nok til at han bøyer under for politisk og diplomatisk press. Tilgang på presisjonsstyrte våpen er en avgjørende faktor for at kampfly skal fungere effektivt i en slik setting. Innføringen av økt jagerflyberedskap i Sør-Norge i etterkant av terrorangrepene på USA 11. september 2001 er et eksempel på hvordan kampfly kan bidra til økt samfunnssikkerhet.

Kampfly vil kunne være de første norske plattformer over ulykkesområder til havs og direkte respons på offentlighetens observasjoner av ikke-autorisert aktivitet i norske farvann eller områder. Videre vil fremtidige plattformers høyteknologiske sensorer kunne bidra eller gi støtte til andre offentlige etaters oppdagelse, kjenning, identifisering av aktivitet, kjøretøy, etc – under alle værforhold, både dag og natt.
Kampflys deltakelse og/eller tilstedeværelse i forbindelse med nasjonale eller internasjonale kriser og spesielle hendelser kan ha en helt klar psykologisk effekt i forhold til befolkningen.

Finnes det alternativer til kampfly?

Prislappen for nye kampfly vil være svært høy. Selv anskaffelsen av et begrenset antall kampfly vil utgjøre et økonomisk løft av en slik omfang at det neppe lar seg gjennomføre innenfor rammen av det ordinære forsvarsbudsjettet. Da Norge i sin tid anskaffet 72 F-16 var prisen 5,5 milliarder 1977-kroner, noe som tilsvarte om lag hele forsvarsbudsjettet samme år. Hvis vi i 2010-2015 velger å anskaffe et antall av 48 nye kampfly, vil prislappen for disse tilsvare minimum ett og et halvt forsvarsbudsjett. Den betydelige kostnaden gjør det betimelig å reise spørsmålet om det ikke finnes andre og billigere løsninger som kan utføre kampflyets oppgaver. En rekke erstatningssystemer for kampfly er teoretisk tilgjengelig i dag, som f.eks:

- ubemannede luftfarkoster (UAV)
- langtrekkende missiler
- områdedekkende luftvernsystemer
- kamphelikopter
- ulike rombaserte systemer

Alle disse alternativene kan bidra til å løse flere av de oppdragene som i fremtiden er tiltenkt kampfly. Imidlertid er det ikke mulig innenfor en akseptabel tidsramme å finne alternative kapasiteter som kan dekke alle rollene til et kampfly. Noe av den fleksibiliteten som kampfly representerer kan selvfølge kjøpes med flere forskjellige systemer. Dette blir imidlertid svært kostbart, ikke minst i drift. Videre vil ingen av disse kapasitetene kunne drive defensive kontraluft operasjoner, verken i krise eller krig, med tilsvarende effekt som kampfly. Dette innebærer at en struktur uten kampfly vil være ute av stand til å drive selvstendige krisehåndtering i norsk luftrom og tilstøtende internasjonalt luftrom. Videre vil en slik struktur heller ikke ha evne til å etablere en akseptabel grad av luftoverlegenhet i en høyintensitetskonflikt.

Ubemannede luftfarkoster (UAV)
Fordelene med UAV blir ofte beskrevet å være lav kostnad, høy ytelse og ingen fare for egne liv. En rekke ulike systemer finnes på markedet allerede i dag, og en rekke nye systemer er under utvikling. Selv om bruken av UAV – med unnatak av Israels bruk i Bekaa-dalen i Libanon i 1982 – trolig ikke har vært avgjørende i noen krig, er disse i stadig større grad blitt brukt i militære operasjoner. For eksempel har væpnede droner har blitt brukt med suksess i Afghanistan. I november i fjor kunne vi lese i avisen om at en amerikansk Predator med Hellfire missil angrep et kjøretøy med terrorister i Jemen.

Selv om slike UAV-er for våpenlevering – såkalte UCAV – allerede er benyttet i faktiske operasjoner, hersker det fortsatt stor usikkerhet omkring når fullverdige UCAV-systemer vil være fullt operative, samt hvilke kapasiteter de vil ha. Min vurdering er at UCAVs ikke vil inneha reell kapasitet til å kunne medføre redusert antall kampfly innenfor den tidsrammen vi ser for oss det neste kampflykjøpet. Dette illustreres blant annet ved at USA, som ledende nasjon innen de fleste teknologiområder, planlegger å anskaffe og vedlikeholde et kampflyvåpen innenfor alle forsvarsgrener i 30 – 50 år til

Veien videre – Noen viktige spørsmål

Når?
Våre F-16 begynner allerede å bli preget av tidens tann, noe som har resultert i tidvis lav operativ tilgjengelighet. Det vil være mulig å strekke den strukturelle levetiden for F-16 frem til 2018, men det vil være ønskelig å starte anskaffelsen av nye fly lenge før dette. F-16 er konstruert for å fly et visst antall flytimer, og det vil derfor være grenser for hvor lenge vi kan operere flyene på en akseptabel måte. Vedlikeholdet vil etter hvert koste så mye at det ikke vil være økonomisk forsvarlig å holde flyene operative lenger. For Luftforsvaret vil det være ønskelig å inngå kontrakt i 2008 for kjøp av nye fly med første levering fra 2012, og total utfasing av F-16 innen 2018.

Hvor mange?
Det finnes få eksempler på at så dyre systemer som kampfly har blitt erstattet med like mange systemer av neste generasjon. Utsiktene for at Norge vil anskaffe et større antall kampfly enn de vi opererer i dag, er således dårlige. Det er imidlertid viktig å være klar over at vi allerede i dag har et av Vest-Europas aller minste kampflyvåpen, og vi er avhengig av å ha et visst antall fly for at et selvstendig kampflyvåpen i det hele tatt skal gi en mening.
Tidligere erfaringer har dessuten vist oss at vi trenger et forholdsvis stort antall fly hjemme totalt sett for å understøtte operasjoner selv med et lite antall fly i utlandet over tid. Foruten de rene nasjonale behov, må derfor antallet fly vi skal anskaffe veies opp mot ambisjonen vi har for vår internasjonale virksomhet.
Jeg vil ikke gå inn på å tallfeste hvor mange fly vi må ha, men nøye meg med å konstatere at relevans uansett vil være viktigere enn størrelsen på kampflyvåpenet. Like viktig som at vi har et tilstrekkelig antall fly, er det derfor at vi har godt øvede piloter og bakkemannskaper, og mange og gode nok våpen. Vi må for all del unngå å havne i samme situasjon som sist vi anskaffet kampfly – at vi kjøper en meget kapabel flymaskin, men mangler våpen av tilsvarende kaliber.

Hvilket fly?
En rekke faktorer vil påvirke valget av fremtidig jagerflytype. Foruten økonomiske og militærfaglige vurderinger, vil blant annet sikkerhetspolitiske, industripolitiske og handelspolitiske betraktninger ligge til grunn. Hvilke valg våre nærmeste allierte – som f.eks

Danmark og Nederland – foretar, bør også få sterk innvirkning på hvilken flytype Norge til slutt faller ned på.

Avslutning

Vi trenger ikke nye kampfly fordi de våre F-16 begynner å bli gamle, men fordi nasjonen Norge har behov for et selvstendig kampflyvåpen. Kampfly gjør oss til en troverdig alliansepartner i en internasjonal så vel som i en nasjonal dimensjon. Kampfly er en fleksibel militær kapasitet som Norge selv må disponere for å ivareta både nasjonale behov og internasjonale forpliktelser.

Selv om vi kan se for oss at enkelte oppdrag som i dag løses av bemannede kampfly, i fremtiden kan løses av andre systemer, gjenstår fortsatt mye utvikling før kampfly fullt og helt kan erstattes av f.eks ubemannede fly. Skal vi være i stand til å oppfylle ambisjonen om å stille substansielle bidrag i internasjonale operasjoner, må vi ha fly som duger. Vi må ha kampfly som må kunne operere side om side med våre alliansepartnere, natt som dag og i all slags vær innenfor flere ulike roller. Vi må ha fly med tilstrekkelige stealth-egenskaper, som kan levere våpen mot mål i lufta så vel som på bakken.

Egenskapene til et moderne kampfly tilfredstiler de krav som settes til fremtidens norske forsvar. Samtidig er et moderne kampflyvåpen en viktig forutsetning for å kunne løse Forsvarets fremtidige oppgaver.

Eller som Forsvarssjefen, General Sigurd Frisvold, så riktig påpekte under et foredrag i Oslo Militære Samfund høsten 2001:

> *"Sikring av et jagerflykjøp er en forutsetning for å kunne løse helt sentrale nasjonale oppgaver. Et land uten jagerflyvåpen legger seg åpen for press og utfordringer over hele konfliktspekteret, fordi en motstander selvfølgelig vil tilpasse seg en så åpenbar mangel på vår side. I tillegg vil mangelen på et eget kampflyvåpen gjøre alle de øvrige deler av Forsvaret så sårbare at det i gitt situasjoner kan bli uten betydning hva vi investerer i dem."*

Kilder

FD: *Styrke og relevans – nasjonalt sikkerhetskonsept for Forsvaret*, foreløpig utgave som grunnlag for militærfaglig utredning 2003 (MFU-03), revidert utkast pr. 27. august 2002.
FD: Forsvarsministerens rammer for Forsvarssjefens militærfaglige utredning 2003, Oslo 2002.
Ståle Uriksen: *Den norske forsvarstradisjonen – Militærmakt eller folkeforsvar?*, Pax Forlag A/S, Oslo 2002.
FO/LST: *Luftled - ekstranummer juni 2001 (Kampflyekstra)*, Oslo 2001.
FSJ MFU 2003: *Strukturvisjon 2014+*, versjon 4 – 16 sep 2002.
FSJ MFU 2003: Ministudie: *Forberede anskaffelse av nye kampfly*, arbeidsdokument pr. 17 januar 2003, Oslo 2003.
Militær Teknikk nr 5-6/2002: *UAV; avansert teknologi med uklar bruksverdi*.
Nils Nåstad: *Ti påstander om kampfly*, upublisert artikkel, Luftkrigsskolen, Trondheim 2002.
Lt.Gen. (ret.) Michael C. Short: *An Airman's Lessons from Kosovo*, Militærteoretisk skriftserie - nr.2: From Manoeuvre Warfare to Kosovo?, LKSK, Trondheim 2001.
Sigbjørn Aune: *Ubemannede luftfarkoster*, artikkel i Mikroskopet – desember 2002, FFI, Kjeller 2002.

”Norge som internasjonal militær deltaker – til hvilke formål?”

Bjørn Hansen

Tittelen på dette foredraget peker i en retning, nemlig anvendelsen av militærmakt til løsning av politiske konflikter, både nasjonale og internasjonale. Vi har de siste årene sett begge deler. Kosovo-krigen ble utløst ved den politiske og humanitære undertrykkelsen av det albanske flertall i Kosovo, som hadde vært et delvis selvstyrt område i Serbia innenfor det tidligere Jugoslavia. Kosovo-aksjonen grep inn i en nasjonal nødsituasjon som truet med å destabilisere et større område på Balkan. Men i utgangspunktet dreide den seg om maktpolitiske og humanitære forhold innenfor en nasjons grenser, ikke om aggresjon rettet utover disse grensene.

Krigen mot Taliban-regimet i Afghanistan skyldtes angrepene på World Trade Center – og Pentagon, altså en konflikt med helt åpenbare internasjonale implikasjoner: USA var angrepet, angrepene var ledet og organisert fra en annen nasjons territorium, og USAs rett til selvforsvar ble straks anerkjent av det internasjonale samfunn som folkerettslig legitimert og begrunnet. I begge disse krigene meldte Norge seg på som deltaker i en koalisjon av villige land.

Det er noe av et paradoks at NATO, som ble dannet for å demme opp for Sovjetunionens politiske og militære innflytelse i etterkrigstidens Europa, aldri ble tvunget til å gripe til militære maktmidler gjennom de 50 første år av sin historie. NATOs kollektive forsvarsdoktrine gjennom Artikkel 5 i NATO-pakten fungerte ikke bare som en effektiv avskrekking. NATO førte også til et internasjonalt samarbeid mellom likesinnede demokratier som i europeisk historie ruver som et enestående politisk prosjekt. Den kollektive militærmakten dannet basis for en politisk harmonisering av de vestlige demokratiene. Styrken i dette prosjektet åpenbarte seg tydeligere enn noen gang ved Murens fall, Tysklands gjenforening, Warzawapaktens oppløsning og Sovjetunionens forvitring. Selv tidligere sovjetiske delstater er nå på vei inn i både NATO og den Europeiske Union, 11 år etter at Mikhael Gorbatsjov 1. juledag 1991 signerte Sovjetunionens dødsdom.

Da NATO ved 50-årsfeiringen i Washington vedtok et nytt strategisk konsept hadde organisasjonen allerede overskredet en tidligere grense ved å aksjonere utenfor eget område i Kosovo. Følgelig ble ”out of area” definert og kodifisert som en av NATOs nye oppgaver. Samtidig ble globale kontekster nedfelt som en alliert sikkerhetsinteresse. Terrorisme, sabotasje og avbrudd i tilfanget av vitale ressurser ble nevnt spesielt som risiki for alliansens sikkerhet. I denne sammenheng er det interessant å analysere de sikkerhetspolitiske ringvirkningene av 11. september.

Den mest umiddelbare politiske refleks av terrorangrepene var beslutningen i NATO-rådet om å aktivere Artikkel 5 i NATO-traktaten. Jeg understreker politiske refleks, fordi de militære tiltak etter denne beslutningen ikke på noen måte sto i forhold til det som i utgangspunktet var en særdeles uvanlig og viktig beslutning. Dette betyr selvsagt ikke at man på militært hold ikke foretok seg noe. Også i det norske forsvar vet jeg at det ble gjort forberedelser, blant annet når det gjelder utrustning og trening for spesialstyrker. Men den brede mobilisering som man under andre omstendigheter skulle vente etter et Artikkel 5 vedtak – for øvrig det første i historien – uteble. Jeg sier dette fordi dette forløpet demonstrerer hvor nye og forskjellige de sikkerhetspolitiske utfordringene er blitt i NATO-sammenheng. Med USA som den ene suverene makt er den europeiske del av NATO blitt et supplement ved internasjonale operasjoner, ikke den sentrale, operasjonelle enhet.

Både gjennom Kosovo-krigen og krigen i Afghanistan har begrepet ”coalition of the willing” utviklet seg til USA-ledede operasjoner der andre NATO-land trer til etter evne og vilje. Ingen andre nasjoner befinner seg i nærheten av USA i militær kapasitet og kvalitet. Men i like høy grad står også den politiske beslutningsevne tilbake, kanskje med et unntak for Storbritannia. Til tross for at det ganske tidlig var klart at Norge kunne og ville stille militære bidrag til disposisjon i Afghanistan, og til tross for at Norge selvsagt også sto bak beslutningen om å aktivere Artikkel 5, kom kunngjøringen om norske militære bidrag først nesten tre måneder etter terrorangrepene og nesten to måneder etter at krigen i Afghanistan var innledet fra USAs side.

Dette har med politisk legitimitet å gjøre. Dersom Norge skal stille sine militære styrker til rådighet i internasjonale operasjoner må norske myndigheter på et tidligst mulig tidspunkt kunne redegjøre for de beslutninger som treffes, og begrunne dem. Jeg er blant dem som mener at norske bidrag til krigen i Afghanistan var berettiget og forankret både i norsk sikkerhetspolitikk og i våre NATO-forpliktelser. Jeg var også selv i Afghanistan for nøyaktig ett år siden, og kunne uten videre merke den enorme lettelse som hersket både i og utenfor Kabul over at Taliban-regimet var fjernet. De enorme ødeleggelsene i landet skyldtes ikke den USA-ledede krigen, der også Norge var med og er med, men herjingene under et par tiår med innbyrdes krig.

I dette tilfelle muliggjorde også krigen en omfattende humanitær innsats, som ellers ville blitt hindret av et særdeles brutalt og undertrykkende regime. Nå var ikke regimeskifte eller humanitær innsats noen utløsende faktor for selve krigen. Formålet med krigen var å fjerne basene for internasjonal terrorisme i Afghanistan, men i dette tilfelle ga krigen avgjørende bidrag til en mulig humanisering av det afghanske samfunnet. Protestene mot krigen i deler av norsk opinion bygde på villedende oppfatninger av den faktiske situasjon både når det gjaldt det afghanske samfunnet, berettigelsen av en militær aksjon og måten krigen ble ført på. Krig er aldri noen god løsning på et politisk eller humanitært problem. Krig medfører lidelse og død. Men det finnes situasjoner da krig er nødvendig og da krigen gir positive ettervirkninger. Afghanistan er et eksempel på det.

Her nærmer vi oss kjernespørsmålet, nemlig hvilke kriger eller militære aksjoner Norge bør eller kan delta i, hvilke kriterier som bør gjelde, og hvilke formål en norsk innsats bør tjene.

La meg her først komme med en generell bemerkning. Gjennom et langt liv har jeg observert at det blant sivile politiske myndigheter hersker en del paradoksale oppfatninger av militærmaktens evne til å løse politiske og diplomatiske konflikter. I den grad man har sympati med et bestemt formål, kan militærmakten fortone seg svært behendig der diplomatiet kjører seg fast. Kosovo-krigen var et eksempel på at selv politikere som hadde tilbrakt sitt voksne liv med å stemme mot militærbevilgninger, plutselig så militærmakten som en redningsplanke. Fra venstresiden i Norge, ja, i nesten hele norsk opinion, har det vært påfallende taust om Russlands herjinger i Tsjetsjenia, mens protestene mot USAs krigsplaner øker i styrke før det er løsnet et eneste skudd. Selv etter Afghanistankrigen har jeg ikke hørt en eneste selverkjennelse fra dem som med stor styrke og sikkerhet hevdet at krigens formål var å bombe kvinner og barn.

Mitt utgangspunkt er at militærmakt først og fremst må være en garanti for demokrati, frihet og sikkerhet, og ikke en makt som man raskt griper til når problemene tårner seg opp på den diplomatiske front. For et lite land som Norge er Forsvaret en kostbar ressurs som skal gi landet uavhengighet og fred. Selve vernepliktskonseptet er forankret i en oppfatning av Forsvaret som en del av det sivile samfunn, der samfunnet forplikter seg til å forsyne Forsvaret med mannskaper og materiell, mens Forsvaret underlegger seg sivil og demokratisk kontroll. At Forsvaret i Norge de siste årene er blitt stadig mer profesjonalisert, må ikke bli ensbetydende

med at vi går over til en profesjonell militærmakt. Uten verneplikt risikerer vi et forsvar som løsrives fra det folkelige grunnlag, og som også mister det brede rekrutteringsgrunnlag som verneplikten gir. Jeg skal ikke gå nærmere inn på konsekvensene av dette, men for Norges vedkommende kan en full overgang til en profesjonell militærmakt bety en svekkelse av Forsvarets legitimitet og Forsvarets oppslutning i folket.

Utgangspunktet er altså et forsvar som ivaretar norsk sikkerhet og selvstendighet, i tillegg til at vi deltar i en bred forsvarsallianse. Men de sikkerhetspolitiske utfordringene i dag strekker seg langt utover Den Kalde Krigens teater. De mest brennbare sikkerhetspolitiske utfordringene beveger seg bort fra våre nærområder, og over i områder som aldri tidligere har vært betraktet som sikkerhetspolitiske problemer for Norge, hvis vi da ser bort fra at Sigurd Jorsalfar prøvde seg i Midt-Østen. Internasjonal terror kjenner ingen grenser. Den kan slå til på Bali, i New York og, for den saks skyld, på oljeplattformer i Nordsjøen. Disse utfordringene avspeiler seg også i Forsvarets modernisering og spesialisering. Også norsk sikkerhet har behov for et forsvar med høy spisskompetanse. Mobilitet og teknologisk presisjon går foran kvantitet og mobiliseringsenheter med tauede kanoner.

Det er i denne sammenheng Norge kan være i stand til å yte sikkerhetspolitiske bidrag ved internasjonale militære operasjoner. Norge kan pr i dag neppe stille med kamptropper i brigade- eller divisjonsstørrelse ved offensive aksjoner i fjernere egne, selv om Telemark Bataljon rustes for dette formålet. Ved forsvar av eget land, ja, men langt borte, neppe. Større troppestyrker, en bataljon eller derover, kan i dag settes inn i områder for å stabilisere dem etter krigshandlinger, slik det har skjedd i Bosnia og Kosovo. Utsiktene for fremtiden er noe mer usikre. Norske bidrag til NATOs nye reaksjonsstyrke kan endre på dette bilde, men under enhver omstendighet vil slike bidrag avhenge av norske myndigheters avgjørelse.

Heller ikke på flysiden synes Norge å kunne sette inn noe stort antall våpenbærere, annet enn i samarbeid med land med kompatible styrker, slik det nå skjer med Danmark og Nederland fra Manas-basen.

Men poenget er egentlig ikke at vi er små i internasjonal sammenheng. Poenget er slik vi har sett det demonstrert både i Kosovo og i Afghanistan, nemlig at Norge besitter nisjer og spesialiteter som kan gi bidrag til internasjonale operasjoner. Denne forsamlingen kjenner Norges kapasiteter bedre enn jeg, og jeg skal derfor ikke gå nærmere inn på denne siden av komplekset.

Det sentrale for meg vil være de politiske og diplomatiske formål Norge ønsker å tjene ved deltakelse. Her har man i Norge de senere årene hatt en uryddig debatt om betingelsene for internasjonale militæraksjoner. Enkelte argumenterer som om Norge, og Norge alene, setter rammevilkårene, og at vi nærmest bør opptre alliansefritt. På motsatt side argumenteres det med en nesten blind NATO-forpliktelse, der Norge skylder USA lojalitet og oppslutning.

Den situasjon som oppsto etter 11. september var på mange måter den enkleste. USA var angrepet. FN-paktens Artikkel 51 som gir rett til individuelt og kollektivt selvforsvar kom til anvendelse. FNs Sikkerhetsråd ga USA støtte, og NATO-rådet utløste Artikkel 5 i NATO-traktaten. Det folkerettslige grunnlaget for et gjensvar mot Al Quaida og Taliban-regimet var ubestridelig. Like ubestridelig var også Norges anledning og rett til å delta i en slik krigføring. Skal NATO ha noen mening som forsvarsallianse, var dette en situasjon der landene stiller opp med sine forpliktelser som alliert.

Det folkerettslige grunnlaget for å delta i militære operasjoner står sentralt i enhver politisk avgjørelse for om Norge skal være med. Små land har en langt sterkere interesse av å styrke folkeretten enn store nasjoner som ofte tvinger sine interesser gjennom på tvers av retts-oppfatningen i det internasjonale samfunnet. Det mest eklatante eksempel den senere tid er vel USAs forsøk på å presse andre land til å godta at amerikanere ikke skal kunne rettsforfølges for krigsforbrytelser. Samtidig reiser USA krav om at andre lands borgere stilles for krigstribunaler, slik man ser i det tidligere Jugoslavia. Ved siden av det moralske hykleri i slike holdninger, virker de direkte nedbrytende på den folkerettslige behandlingen av denne type internasjonale forbrytelser. Men motsatt virker handlinger i tråd med folkeretten også til å styrke denne.

Artikkel 51 i FN-Charteret gir stater som blir angrepet en ”iboende rett”, som det heter, til selvforsvar, kollektivt eller individuelt. Men like interessant er det at samme artikkel også gir FNs Sikkerhetsråd mandat til å gjennomføre de aksjoner eller tiltak rådet anser nødvendig for å opprettholde eller gjenopprette internasjonal fred og sikkerhet. Det dreier seg her ikke bare om fredsbevarende operasjoner, som lenge var den mest sentrale oppgave i FN-regi, men også aktiv militær inngripen for å stanse ufred. Det siste innebærer også offensive krigshandlinger.

Mens retten til selvforsvar er en relativt klar og definert rettighet, gir den siste del av Artikkel 51 rom for fortolkninger og politiske vurderinger. Den videste fortolkningen gir Sikkerhetsrådet anledning til å legitimere inngrep også i situasjoner der en nasjonal konflikt truer med å spre seg ut over grensene, destabiliserer et område eller innebærer særdeles grove brudd på menneskerettighetene.

Sikkerhetsrådet har ikke fulgt noen konsekvent linje i disse spørsmålene. Minst 600 000 mennesker ble slaktet ned i Ruanda uten at det internasjonale samfunn grep inn. En langt mer begrenset konflikt i Kosovo førte til krig, men uten noe klart hjemlet mandat fra Sikkerhetsrådet.

Vetoretten for de fem såkalte stormakter i Sikkerhetsrådet har i perioder virket lammende på rådets arbeid. Det er derfor ikke uten videre gitt at vedtak i rådet danner det eneste folkerettslige grunnlaget for å kunne gripe aktivt inn med militære midler i konfliktsituasjoner som faller utenfor den strengere definisjon av selvforsvar. Dette så man klart under Kosovo-krigen der den folkerettslige fortolkningen ble strukket lengre enn tidligere. Humanitære katastrofer som forårsakes av brutale eller tyranniske regimer, eller av lokale krigsherrer, er i stigende grad blitt innlemmet i den folkerettslige legalitet og legitimitet for militær inngripen. Somalia og Sierra Leone er eksempler på dette.

Det internasjonale samfunn er i ferd med å utvikle mindre toleranse overfor brudd på menneskerettighetene, og det har dannet seg folkerettslige gråsoner der grunnlaget for militære inngrep ikke er noe fast og entydig. Og fortsatt er det slik at den som har størst makt ofte tiltar seg de største rettigheter.

Men små land kan ikke tillate seg å eksperimentere med folkerettslige grenser. Skal Norge delta i internasjonale militære aksjoner må de ha legitimitet, enten gjennom en iboende rett til selvforsvar, gjennom vedtak i FNs Sikkerhetsråd eller gjennom en form for internasjonal nødrett der en gruppe land påtar seg oppgaven å stanse humanitære katastrofer forårsaket av forfølgelse og brudd på menneskerettighetene. Militære aksjoner der Norge deltar må ha en folkerettslig legitimitet som ikke kan bestrides. Og formålet med slike aksjoner må være å hindre at enkelte nasjoner tar seg til rette overfor andre, og at man forsøker å hindre utviklingen av katastrofer.

For Norge er det også naturlig å samarbeide med alliansepartnere om militære aksjoner. Norge kan ikke med sin begrensede militære kapasitet handle på egen hånd. Det er verken mulig eller ønskelig. Spørsmålet er derfor hvordan Norge kan bidra i f. eks. kampen mot terrorisme på et folkerettslig grunnlag, i samarbeid med andre, først og fremst våre partnere i NATO.

Forpliktelsen til å delta sammen med andre NATO-land der det dreier seg om en NATO-ledet aksjon, er åpenbart til stede. Men det er ikke uten videre gitt at dette bør skje. Dersom det hersker tvil om det folkerettslige grunnlaget for en aksjon, bør det herske minst like stor tvil om norsk deltakelse.

Med de norske bidrag både til fredsbevarende operasjoner i FN-regi og norske bidrag til militære aksjoner ledet av NATO og USA de senere årene, har Norge vist både evne og vilje til å oppfylle denne type forpliktelser. Men det leder ikke til at Norge bør stille militære styrker til rådighet i enhver situasjon der USA eller andre større NATO-land kaller på vår deltakelse. Hvis noen i forsamlingen skulle være i tvil, tenker jeg selvsagt på en mulig krig mot Irak.

Men la meg først si dette:
Norge har på grunn av sin geopolitiske plassering en klar interesse av å bevare og å utvikle samarbeidet i NATO, kanskje nettopp i forhold til nasjoner som USA og Storbritannia som vi gjennom hele etterkrigstiden har hatt et nært sikkerhetspolitisk forhold til. Vi bør ikke oppsøke konfrontasjoner som kan sette alliansen og medlemskapet i NATO i fare. Vår sikkerhetspolitiske tilknytning har utviklet seg gjennom skiftende politiske konjunkturer. Også under Den Kalde Krigen gjennomlevde vi perioder med fotnotekriser og anstrengte politiske kontakter med den til enhver tid sittende administrasjon i USA.

Men hver gang besto alliansetilknytningen prøven. NATO består av frie og selvstendige stater. I så grunnleggende spørsmål som krig og fred kan ingen medlemmer forlange underkastelse av andre medlemmer. Der det dreier seg om kollektivt forsvar, er saken opplagt. Men der man gir seg ut i militære aksjoner utenfor denne definisjonen eller et klart FN-mandat, er det ikke gitt at man kan kreve bidrag fra norsk side eller andre nasjoners side.

Derfor stiller situasjonen i Irak Norge på prøve. USA har på ingen måte sannsynliggjort at Irak har forbindelser til Al Quaida eller andre terrororganisasjoner som retter seg mot USA. Fra mitt synspunkt faller en aksjon mot Irak utenfor kampen mot internasjonal terrorisme.

Spørsmålet om Irak har masseødeleggelsesvåpen må FNs våpeninspektører besvare. Irak har ikke redegjort for hva som har skjedd med de biologiske og kjemiske stridsmidler som fortsatt var igjen da våpeninspektørene forlot Irak i 1998. At Irak nå samarbeider med FNs våpeninspeksjon, er ikke ensbetydende med at Irak har rent rulleblad. Det påhviler faktisk Irak en forpliktelse til å bevise at masseødeleggelsesvåpen ikke lenger finnes innenfor landets grenser. I så måte har Saddam Hussein ikke anstrengt seg i nevneverdig grad. Og det går også en grense for hvilke utsettelser det internasjonale samfunn skal finne seg i. Saddam Hussein spekulerer i den voksende bekymring og frykt for en krig. Ved å ta tiden til hjelp håper han å bryte ned det internasjonale presset på regimet.

Men akkurat nå skjer det motsatte. USA og Storbritannia foretar en formidabel militær oppladning i Gulf-regionen som ubønnhørlig ruller i retning av krig. Retorikken, fremfor alt fra Washington, går ut på at timeglasset er i ferd med å tømmes, og at Irak står overfor et militært angrep. Det er i dag, mildt sagt, høyst tvilsomt om FNs Sikkerhetsråd i løpet av de nærmeste ukene vil gi mandat til en militæraksjon gjennom et nytt vedtak. USA selv mener at et nytt

vedtak ikke engang er nødvendig, fordi Sikkerhetsrådets Resolusjon 1441 hjemler begrepet ”alvorlige konsekvenser” dersom Irak lar være å samarbeide, eller lar være å oppgi eller skjuler sine masseødeleggelsesvåpen.

La meg si et par ord om den nåværende amerikanske administrasjon, fordi forholdet er særdeles viktig for en alliert som Norge. Under president George W. Bush fører USA en nasjonalistisk og til tider aggressiv utenrikspolitikk, ledsaget av en retorikk som når presidenten mangler manuskript overgår de mest banale Western-filmer. Men terrorangrepene 11. september har gitt Bush en ryggdekning i amerikansk opinion for denne politikken som en president bare kan drømme om. USA fikk også bred sympati, kanskje særlig i Europa, ved terrorangrepene. På mange måter ble vi alle amerikanere. Krigen i Afghanistan rokket heller ikke ved denne sympatien. Men forbindelseslinjen til Irak, er syltynn, om den i det hele tatt er til stede.

Denne situasjonen fordrer stor varsomhet fra norsk side. Et klart vedtak i Sikkerhetsrådet som gir mandat for et militært angrep vil kunne legitimere norsk deltakelse i en krigskoalisjon, selv om det operativt trolig er for sent.

Men noe som er mindre enn dette setter oss i en tvilsom folkerettslig situasjon. Å trekke på NATO-solidaritet i slike sammenhenger leder inn i et farlig uføre. Norge må foreta en selvstendig vurdering av landets sikkerhetspolitiske interesse, før norske styrker knyttes til et militært bidrag, stort eller lite. På mange måter dreier det seg om et enten-eller. Jeg tenker ikke her så mye på de innenrikspolitiske påkjenninger dette medfører, som på de fremtidige internasjonale konsekvenser, både i forholdet til NATO-samarbeidet og i forhold til vår rolle som bidragsyter til internasjonale konfliktløsninger. Norge må ikke komme i en situasjon der NATO-forpliktelser defineres som en automatisk eller slavisk underkastelse av beslutninger som måtte treffes i Washington eller London.

Norge står heller ikke alene i denne situasjonen. De fleste europeiske NATO-land stiller seg skeptiske til USAs pågående krigsforberedelser og grunnlaget for en militær aksjon. Hvis formålet med et norsk militært bidrag er å fjerne en påviselig trussel fra Iraks masseødeleggelsesvåpen, er det aktverdig nok. Men dersom formålet er regimeskifte, omkamp fra 1991, olje eller andre mer eller mindre skjulte motiver, begir vi oss inn i et uryddig og farefullt lende.

Det norske Forsvaret har en sterkt forankret legitimitet i befolkningen. Denne legitimiteten kan bare bevares dersom norske myndigheter selv treffer selvstendige beslutninger om anvendelsen av den relativt begrensede militærmakt vi rår over. Norske militære bidrag både til fredsbevarende operasjoner, der UNIFIL vel var den mest omfattende, til fredsopprettende aksjoner som i Bosnia og Kosovo, og til krigføringen i Afghanistan, har vært allment akseptert i befolkningen. Formålene har i alle disse situasjonene bidratt til en tryggere verden og mer levelige forhold for befolkningen i de områder der konfliktene har rammet.
Men taper vi det folkerettslige grunnlaget for norske bidrag av syne kan stemningen fort snu. Dersom Forsvaret etter hvert skulle fremstå som en omreisende krigstrupp, vil vi skaffe oss et legitimitetsproblem. Rollen som leiesoldat vil være vanskelig å godta for norsk opinion.

Et annet problem vi må være rede til å konfrontere er faren for militære tap. I de skarpe aksjonene der Norge har deltatt har vi vært forskånet for slike tap. Vi kan ikke være sikker på at det vil være situasjonen for fremtiden. Også av denne grunn må norske myndigheter til enhver tid kunne gi en akseptabel folkerettslig begrunnelse for norske bidrag til internasjonale militære operasjoner.

I en forsamling så spekket med gull og messing skal jeg være varsom med å gå inn på virkningene for Forsvaret selv ved internasjonal deltakelse. Det er klart at Forsvaret strekker sine ressurser nær mot bristepunktet hver gang nye krevende internasjonale bidrag dukker opp. I kjølvannet av Afghanistan-krigen har f. eks. behovet for spesialsoldater økt, og denne spesialiteten skal derfor økes. Men Forsvaret kan aldri konstrueres slik at det utelukkende tjener internasjonale aksjonsformål. Forsvarets primæroppgave ligger i sikringen av norsk territorium. Jeg tviler, mildt sagt, på at det finnes politisk grunnlag for å rokke ved denne prioriteringen.

Likevel bringer internasjonale bidrag en viss bonus til Forsvaret. De tilfører Forsvaret oppgaver og erfaringer som Forsvaret ellers ville vært foruten, både når det gjelder felttjeneste, operasjonskonsepter og interoperabilitet.

Og ikke minst: Det øker troverdigheten av Forsvaret selv, både nasjonalt og internasjonalt. Bidragene behøver ikke være store. Selv nisjebidrag er verdifulle. La meg her understreke at dette ikke er selve formålet med norsk internasjonal deltakelse. Vi deltar ikke for å bli noen råskinn til å krige. Men bidragene kan øke vår egen sikkerhet og troverdighet. Visse bidrag yter en klart humaniserende effekt. Mineryddere og eksplosiveksperter som jeg selv møtte i Afghanistan for ett år siden gjorde åpenbart en strålende innsats for tryggere omgivelser både for sivile og militære. La meg også forsiktig minne om at sivile mineryddere som blant annet har arbeidet for Norsk Folkehjelp i et land som Angola, faktisk er utdannet av Forsvaret.

Forsvaret er ikke utelukkende innrettet på destruksjon. Militær innsats kan forebygge og hindre ytterligere ødeleggelser og menneskelige lidelser, selv om krig i seg selv aldri må rosemales. Det skal faktisk særdeles gode grunner til å sende norske ungdommer inn i krigssoner.

La meg til slutt si noe om både de politiske myndigheters og Forsvarets holdning og åpenhet overfor befolkningen. Mer enn noen gang tidligere er det nødvendig både å informere om, og å begrunne hvorfor Forsvaret skal delta internasjonalt. Både som foreldre til soldater og som vanlige borgere vil vi være særdeles vaktsomme med myndighetenes disposisjon av det de betrakter som en ressurs, men det vi betrakter som en sønn eller datter. Blikket rettes i første rekke mot politiske myndigheter som treffer de avgjørende beslutninger.

Når Forsvaret skal anvendes til internasjonale oppdrag utenfor primæroppgaven, nemlig vår egen territorielle sikkerhet, må det være uten skygge av tvil om at det her dreier seg om et politisk ansvar og ikke et militært. Forsvarets ansvar ligger i forberedelse og gjennomføring, ikke i det vedtak som utløser norske bidrag.

Jeg savner ofte en dypere og mer nyansert debatt om legitimitetsproblemet ved norsk innsats internasjonalt, en debatt i det offentlige rom der beslutningstakerne selv redegjør for sine argumenter. Det er mulig at debatten skjer bak lukkede dører, men der har ikke vi andre tilgang.

I det hele tatt er det et økende behov for å drøfte under hvilke omstendigheter og til hvilke formål Norge skal bidra militært. Debatten har vært død mellom de politiske partiene, der politiske døgnfluer som strømpriser og rente, synes å være viktigere enn de eksistensielle problemer vi her står overfor. Det er for sent å ta denne debatten den dag vi står oppe i en krise.

Derfor er det faktisk noe betryggende for en sivilist som meg at Forsvarets egne folk reiser denne debatten mest seriøst og ordentlig. Ikke minst i oppkjøret til Irak-krisen ser jeg at det er

Forsvarets folk og forskere, ikke politikere, som reiser de grunnleggende problemstillinger, både av folkerettslig og militær karakter.

Jeg har også merket meg den nesten påfallende kritiske holdningen til det politiske kjøret som nå kommer fra USA. Det er faktisk ikke slik at militært personell i Norge går og kikker rundt hjørnet etter neste krig, stor eller liten. Jeg regner med at Forsvarets folk vet bedre enn oss andre hva krig innebærer. Nettopp derfor er det verd å lytte til den sunne skepsis som i påfallende høyere grad kommer fra offiserer enn fra folkevalgte, med enkelte unntak. Det finnes fremtredende politikere som man nesten må dra standpunktene og begrunnelsene ut av med skrutrekker.

Vi kan ikke la være å ta denne debatten. Åpenhet er nødvendig dersom vi skal bevare og utvikle den legitimitet som Forsvaret har og har hatt.