

Two Cheers for Transformation -- And Some Words of Caution

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Mr. Chairman and Members of the Committee, thank you for inviting me to offer an assessment of military transformation.

"Transformation" is a tricky term.

The current popularity of the word within the Pentagon suggests that it means different things to different people.

For some, it is a way of rescuing threatened ideas and institutions.

For others, it is a way of sweeping those ideas and institutions away.

And for many, it is a ritual incantation -- the latest buzzword used to bless business as usual.

However, there is one point at which all the various meanings seem to converge.

That is the potential impact that new technology may have on how war is waged.

The term first emerged from the uncertainty following the collapse of communism, when the threat that had driven America's defense preparations for two generations suddenly disappeared.

With little clarity about future dangers, policymakers turned to recent advances in technology for clues as to how the military should maintain its edge.

Not surprisingly, they got caught up in the enthusiasm for new information technologies then sweeping popular culture.

Thus it became fashionable to say the military was pursuing a "capabilities-based" posture rather than a "threat-based" one, because we didn't know what threats we would be facing but we thought we knew what technologies would be decisive.

Experts such as Dr. Krepinevich correctly insisted that the technology would only be decisive if it were wedded to appropriate operational concepts and organizational changes.

Nonetheless, there is little doubt that the concept of transformation the military is pursuing today is driven first and foremost by an enthusiasm for emerging information technologies.

All of the gains that military planners foresee in global awareness and precision and agility and survivability trace their origins to these new technologies.

I have no basic quarrel with the claims being made for military transformation.

But because you have already heard what's so promising about transformation, I'd like to focus on some concerns I have about its implementation.

I've distilled these concerns to five points.

Point One. The most important military lesson of 9-11 is that we have little idea what's coming next.

During the Cold War we convinced ourselves that the threat was stable and predictable, but a review of recent history reveals at least one strategic surprise every decade.

From Pearl Harbor in the 1940s to North Korea's invasion of the South in the 1950s to the Tet Offensive in the 1960s to the fall of the Shah in the 1970s to the collapse of communism in the 1980s, we have a long record of getting the future wrong.

Like the atrocities of 9-11, all of these surprises looked predictable once we adjusted our way of thinking, but that happened after the fact.

So any concept of transformation that proposes sweeping programmatic changes based on a presumed understanding of future challenges is doomed to failure.

There are simply too many possible threats, and the very act of preparing for some reduces the likelihood that those are the ones we will face.

I give the Bush Administration high marks for acknowledging this uncertainty in its transformation plans.

That is the reason why weapons that looked like candidates for cancellation such as Crusader survived the administration's strategic review -- because once policymakers understood its capabilities, they could not dismiss its utility in a range of plausible contingencies.

Just last week, an Air Force general was explaining to me how the presence of a system like Crusader in Afghanistan would have enabled his service to deploy its bombers more effectively.

I guarantee you that a year ago, that general was not planning to wage a land war in Asia in the near future.

Point Two. The lessons of the past are seldom obvious.

Proponents of particular approaches to transformation frequently refer to history in making their case, but the inferences they draw for our own preparations cannot be proven.

For example, a favorite case study is the German success in adapting new technologies such as

tanks and radio to overrun France in a few weeks during 1940.

But Germany was facing a longtime enemy whose strategy, formations and terrain were well-known.

That is not the situation America faces today.

Moreover, the French strategy of static fortifications was a response to the failure of offensive doctrine in the previous war -- in other words, they were trying to learn from their own history.

Unfortunately, they learned the wrong lessons.

We have to be careful that in implementing transformation, we do not do the same.

Point Three. Our future adversaries will not always be fools.

Every enemy America has faced since the end of the Cold War has been less capable than the one that came before.

Iraq was less capable than Russia; Serbia was less capable than Iraq; the Taliban was less capable than Serbia.

The incompetence of our adversaries has given us an exaggerated idea of how much progress we have made in transforming our forces.

U.S. forces exhibited impressive synergy in Operation Enduring Freedom, but that shouldn't be hard to achieve against a primitive nation with no intact air defenses and deep ethnic divisions.

If we try to fight a unified and capable adversary using forty-year-old bombers, unprotected aerial vehicles and free-roaming special forces, we will probably have our head handed to us.

Even if we believe future adversaries will be marginal in their military capabilities, we ought to ask ourselves how Operation Enduring Freedom would have fared in a country covered with jungles, or with cities where the enemy could hide among noncombatants.

It is essential that our transformation efforts include realistic training exercises and experimentation that expose new warfighting ideas to the rigors of combat against resourceful enemies.

Point Four. Because our adversaries will not be fools, we need to understand the weaknesses of new technology.

At the rollout of the Navy's new Hawkeye 2000 early-warning aircraft last fall, Rear Admiral Phillip Balisle made a startling admission.

He said that once the Fleet transitions to network-centric concepts of operation, loss of access to

the network could make it more vulnerable than it is today.

That is not the only instance in which new technology potentially brings new problems.

The satellite-guided munitions that provide pinpoint accuracy rely on weak signals from thousands of miles away that in some circumstances can be jammed with only 20 watts of power.

The networks that facilitate next-generation naval warfare will have no hardening against electromagnetic pulse, making asymmetric attacks with nuclear weapons a very potent threat to Fleet effectiveness.

And the onboard logic of unmanned combat aerial vehicles will not begin to approach the computational capacity of human brains, making them highly vulnerable to attacks by manned aircraft.

So before we get rid of all the laser-guided bombs and begin dumbing down platforms because they are networked, we need to understand how clever adversaries might exploit weaknesses in new technology.

Here again, the need for realistic training and experimentation is obvious.

My **final point** is that realizing the potential of military transformation requires a greater commitment to procurement.

The level of procurement the administration proposes for 2003 is only two-thirds of what the Joint Chiefs estimate is needed every year to sustain existing forces.

Since 1990, the average age of Air Force planes has increased from 13 to 22 years.

There is not a single year since 1993 that the Navy has bought the number of warships it must buy every year to support a 300-ship fleet.

And the Army is buying less than 20% of the helicopters it needs to maintain its military edge.

I have attached to my statement two tables reflecting how decrepit our air fleets have become.

It is too soon to criticize the Bush Administration for underinvesting in new technology, because it inherited a raft of readiness and personnel problems that had to be addressed immediately.

But if it does not stick to its plan to raise procurement spending in future years, the resulting erosion in military capabilities will undercut any claim of transformation.

Navy Aircraft Older Than Ships

PLATFORM	INVENTORY IN 2002	AVERAGE AGE IN 2002
CH-46D	81	35
CH-47E	228	32
CH-53D	46	31
S-3B	113	25
KC-130	78	24
P-3C	228	23
DD-963	24	22
EA-6B	122	19
F-14A/B/D	206	17
FFG-7	27	16
SH-60B	161	13
F/A-18A/B/C/D	766	11
C/MH-53E	196	11
CG-47	27	11
E-2C	68	10
AV-8B	140	8
HH-60H	40	8
DDG-51	30	4
F/A-18E/F	39	1
MV-22	12	1

USAF “Revolution in Museum Affairs”

- Average age of fleet has increased from 13 years in 1990 to 22 years today.

USAF Aircraft Age in Years			
	Maximum Safe Operating Age	Maximum Acceptable Average	Average Age Today
Fighters	30	15	14
Bombers	60	30	25
Electronic	50	25	24
Tankers	60	30	37
Intratheater Lift	50	25	23
Intertheater Lift	50	25	24

- If entire fighter modernization program executed as planned, tacair average age still rises to 18 years in 2020.

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