## **Aperture**

Strategic miscalculations; Draconian steps on the horizon; Benefits next?; Competing for techies; Generic combat aircraft ....

## **STOP ME BEFORE I CUT AGAIN**

Defense Secretary Chuck Hagel offered an exasperated and urgent warning to the nation this summer: If Congress doesn't get its act together and reverse the budget sequester for Fiscal 2014 and beyond, it will "bend" or "break" national military strategy and profoundly weaken the nation's armed forces.

Reporting on the results of the Strategic Choices and Management Review (SCMR), which he ordered up in April, Hagel said incredibly steep, destructive spending cuts will be needed to live with the austerity plan, if it continues for the 10 years mandated by the 2011 Budget Control Act. The US military would have to shrink to a pre-World War II size and would be forced to abandon some missions, he said at a Pentagon press conference.

The choice amounts to trading "size for high-end capability," or vice versa, Hagel said. In either case, if the US becomes involved in a new armed conflict, there won't be enough capacity or capability to deal with a second one erupting at the same time. The US military would be able to go "fewer places and do fewer things," he said.

Even if Hagel cuts everything he's allowed to, it still wouldn't be enough: He'd still have to come up with tens of billions of dollars more, every year. That would mean radical, sustained reductions in readiness and "a decade-long modernization holiday," during which the US military wouldn't be able to replace worn-out or obsolete gear and would lose its edge against world competitors.

The situation, he said, would be a continuous replay of this summer's readiness debacle, which saw Air Force squadrons grounded, Army units not training, and Navy ships tied up dockside instead of deploying to hot spots.

"Letting sequester-level cuts persist would be a huge strategic miscalculation," Hagel said at the July 31 press conference. "If these abrupt cuts remain, we risk fielding a force that over the next few years is unprepared due to a lack of training, maintenance, and the latest equipment."

Potential cuts identified under the SCMR include elimination of as many as five more squadrons of Air Force fighters, early retirement of "older Air Force bombers," chopping up to three carrier battle groups, and the early discharge of hundreds of thousands of soldiers and marines, Hagel said.

Deputy Defense Secretary Ashton B. Carter, explaining the SCMR findings the next day to the House Armed Services Committee, warned of rising risk and danger due to sequester.



Up to five fighter squadrons could go.

"There are going to be things we can't do any longer," Carter said. "We know the world's watching. It's embarrassing and unsafe to be in the situation we are in."

Hagel insisted the Defense Department is "not crying wolf or ... trying to overstate or overhype" the situation, and he's given strict orders that any of his people communicating with Congress or the press "don't put a word anywhere that's exaggerated." The President, he said, has to "know what he's got and what he doesn't have," and Congress has to understand the real consequences of continuing inaction.

Hagel stopped just short of demanding that Congress relax its refusal to allow DOD to close facilities and ask service members to pay modestly more for their own health care, among other steps he thinks must be taken to pay the bills.

Because he can't quickly—or legally—close bases, eliminate organizations, discharge thousands of service members, reduce benefits, or take other major steps to reduce overhead, the spending cuts demanded by sequester can't be achieved in the first few years, Hagel observed.

"Every scenario of the review ... showed shortfalls in the early years of \$30 billion to \$35 billion. These shortfalls will be even larger if Congress is unwilling to enact changes to compensation or adopt other management reforms and infrastructure cuts we've proposed" in the Fiscal 2014 budget.

"Opposition to these proposals must be engaged and overcome, or we will be forced to take even more draconian steps in the future," Hagel warned.

Rep. Buck McKeon (R-Calif.), HASC chairman, said, "Further cuts will cause catastrophic readiness shortfalls." The US will "lose our workforce and ability to recruit and retain the all-volunteer force, and our influence around the world will continue to diminish."

He added that "there's agreement on both sides of the aisle and both sides of the Potomac that these cuts embolden our enemies and jeopardize US national security."

## **BENT OR BROKEN**

The force structure scenarios laid out by Hagel posited three spending levels: the Fiscal 2014 defense budget proposed by President Obama; the full sequester, which cuts a further \$52 billion from the 2014 proposed budget; and a third "in-between scenario" in which the Pentagon cuts about \$250 billion over 10 years. That would cut half as much as sequester, but the notional plan would achieve most of those savings toward the end of the period because of the time it takes to reduce people, force structure, and infrastructure, Hagel reported.

At the budget level proposed by Obama in Fiscal 2014, "we can sustain our current defense strategy," Hagel insisted. The in-between level, "would bend our defense strategy in important ways, and sequester-level cuts would break some parts of the strategy."

Carter told HASC legislators, "We simply cannot downsize the force prudently in a few years. Ten, yes; in a few, no."

Consequently, Hagel pleaded with Congress to give DOD time to ramp its spending down more slowly so that the deepest cuts could be "back-loaded" into later years.

Options eyed in the review include bringing the Army down by 70,000-100,000 soldiers from its current end strength of 490,000 Active Duty and 15,000-60,000 from its 555,000 reserve component. Navy carrier battle groups would potentially be reduced "from 11 to eight or nine," Hagel said, and "the Air Force could reduce tactical aircraft squadrons—potentially as many as five—and cut the size of the C-130 fleet with minimal risk." The service could also "retire older ... bombers." Marine end strength could be reduced from 182,000 to between 150,000 and 175,000.

Hagel stressed that none of these cuts is a "proposal," but rather a series of options developed to give Washington a "clear-eyed assessment of what our military can and cannot do in the event of a major confrontation or a crisis after several years of sequester-level cuts."

The goal was "to be able to give the President informed recommendations, not to prejudge outcomes," Hagel pointed out.

The SCMR will also serve as a springboard for the upcoming Quadrennial Defense Review and assist planners in developing the Fiscal 2015 budget, he noted. Programmers will actually have to build two budgets going forward: one for sequester and one for the President's proposal, he added.

While the review was respectful of the sacrifices of the troops, the Pentagon can't bear big military pay and benefits increases—as it has for the last 12 years—now already claiming half the Pentagon's budget, said Hagel.

Part of the financial solutions ahead include a slower growth in pay, changes to the way housing allowances are calculated, and the probable end of commissary subsidies.

"If left unchecked, pay and benefits will continue to eat into our readiness and modernization. That could result in a far less capable force that is well-compensated but poorly trained and poorly equipped," Hagel pointed out.

That could also mean shifting retirees to private-sector insurance, "reducing the overseas cost-of-living adjustments, [and] continuing to limit military and civilian pay increases," he added.

The sequester cuts are in addition to \$487 billion of reductions over the next decade the Defense Department has already had to accommodate, Hagel pointed out. Besides that, he and his predecessors have been moving to slash DOD overhead: Robert M. Gates proposed \$150 billion in efficiencies; Leon E. Panetta \$60 billion; and Hagel himself \$34 billion.

Consequently, Hagel said, there's "not much" efficiency left to find, and even all those projections aren't likely to bear full fruit. Even so, he announced plans to cut 20 percent from headquarters budgets for the Pentagon, combatant commands, defense agencies, and field activities and flattening out the organizational chart. He also said there would be consolidation of intelligence analysis functions that have bloomed since 2001 and which Hagel said are duplicative.

Adm. James A. Winnefeld Jr., vice chairman of the Joint Chiefs, who helped head up the review, said it was about "teeing up choices. We haven't made those choices yet. We now understand them very, very well."

## LEAD, FOLLOW, OR ... WATCH

A new Air Force study of the service's technological future focuses on areas where USAF must lead, where it must follow the commercial market, and where it should simply keep an eye on what its allies and competitors are doing.

"Global Horizons," directed by Chief Scientist Mark T. Maybury, who has since moved on to a new position outside the service, follows the last big Air Force technology forecast by just three years.

Global Horizons forecasts the broad demands on the Air Force and its core missions out to 2050, conditions such as population growth, climate change, competition for resources, and the rapidly shifting capabilities of US military competitors.

The study found that everything in "Technology Horizons," the previous technology report conducted by Werner J. A. Dahm, remains valid. Specifically, it states that USAF has to invest in faster and more resilient networks, find ways to get the gear it needs at lower cost, and improve its people over the long-term to be able to keep up with the ever-accelerating pace of military operations and information.

Broadly, Maybury's study found that the Air Force is going to have to lead in ways to get faster: faster at computing, faster at traveling through the domains of air, space, and cyber, and faster at comprehending rapidly changing conditions and making the right choices about what to do.

At the same time, USAF will be competing for a shrinking pool of people who are experts in science, technology, engineering, and math. The Air Force also will have to do more to recruit—earlier than ever—cultivate, and retain them against higher bidders.

It will be tougher to perform USAF's core missions because all "domains will be increasingly contested, congested, and competitive," Maybury said in the executive summary of the report.

He recommends a more comprehensive and dedicated program to keep an eye on technologies being developed overseas and a faster, more focused effort to identify and counter new technology threats.

Key technologies with the greatest potential to be "game changers" for the Air Force include "trusted and resilient cyberspace" and assured positioning, navigation, and timing, as well as hypersonic propulsion, directed-energy weapons, "bio-inspired computation," advanced materials and the means to produce them, and enhanced ways to extract the highest physical and mental performance from individuals.

In "fast follower" mode, USAF will adopt technologies developed by other agencies or allies that it can use to further its strength in core functions.

As a "technology watcher," it will keep tabs on technologies not directly pertaining to its core functions but where those technologies can help with its enabling capabilities.

Along with these key thrusts there will have to be new, agile acquisition methods that can dramatically accelerate the current process, which is too long and cumbersome to keep up with technology change, Maybury said.

This will involve more widespread partnerships among the various government agencies that foster and nurture technology breakthroughs and seeking more international partnerships on common technology efforts. Maybury noted ongoing collaboration with Australia on hypersonics as an example.

In aircraft, Maybury said the drive is on to make remotely piloted systems more autonomous while humans retain control over the weapons release. Stealth will still be important, and stealth aircraft coupled with directed energy systems will likely be a game changer. There will need to be more teaming between manned and unmanned aircraft, though.

Maybury foresees combat aircraft becoming more generic, outfitted for specific missions with modular payloads and mission systems. This will extend their service lives, by making them adaptable to new missions as they arise.

Because almost all countries have the ability to get to space on their own or by buying launch and payload services, Maybury sees space becoming rapidly more congested, with greater "cyber and physical threats" that must be guarded against.

He anticipates greater use of smallsats, "fractionated satellites," and "disaggregated constellations." These are mix-and-match constellations that collectively perform certain tasks and, in other configurations, can do other things without putting an entire capability on a single big satellite.

Also, he suggests USAF begin migrating to higher frequency electromagnetic communications, because lower bands are getting too crowded.