Space Command at rock bottom; No more Space Fence; What will become of North Korea? China waiting in the wings? ....

# **NO DIALING FOR DOLLARS**

The ongoing sequester is causing huge headaches for Air Force Space Command. Its commander, Gen. William L. Shelton, is doing all he can to find work-arounds, but with all "no fail" missions, he says there's little he can do to dial down expenses without fundamentally hurting the nation's military space enterprise.

"I'm down to what I consider to be the bare minimum capability," Shelton said in an October interview. "You can't say, 'OK, I'll just live with one less SBIRS [Space Based Infrared System] satellite.' That opens up a hole in the constellation. You can't just say 'I'll live with one less Advanced EHF satellite'—another hole in the constellation. You can't say, 'I'll just do without some of my ground systems' because that opens up a hole in your ability to be global."

He confessed envy of his fellow major command chiefs, who can reduce flying hours to reap immediate savings.

"My friends in the other majcoms that have airplanes, ... that's a rheostat that they can adjust," he explained. "They can decrease their flying hour program and that saves them a lot of money" although "admittedly [with] an impact on readiness and combat capability." But he lacks any such flexibility.

"I don't have any similar rheostats where I can just reduce ops tempo and produce savings that would pay the bills for sequester," Shelton said.

In September, Air Combat Command chief Gen. G. Michael Hostage III and Air Mobility Command boss Gen. Paul J. Selva made headlines by warning that continued sequestration might force the Air Force to take vertical cuts—such as elimination of whole weapon systems, like the A-10 close air support aircraft and KC-10 tanker—to ensure that whatever systems remain are properly funded and ready for war.

Shelton can't do that, either.

"It's not an option, unless the nation decides we don't want to have ... missile warning, protected communications, global wideband communications," or space situational awareness, Shelton said. "It's those kinds of capabilities that are important to the nation and to the joint warfighter which I'm charged to provide, and I don't see any way to back off on those."

He asserted, "We're to rock bottom" in terms of still being able to provide the functions AFSPC is tasked with.

"As sequestration continues to take roughly 10 percent per year, every year, you get to the place where you're out of airspeed and ideas. And that's where I am for [Fiscal 2015]. Unless there's an adjustment in the overall priorities of the Air Force and Department of Defense, I really have no place left to go," he said.

Shelton added that he could close down every AFSPC ground station "and it wouldn't really pay the bill" demanded by the sequester. "So that's why I'm saying, I'm really kind of out of tricks, here. And this is just the operations and maintenance side."

As for investment accounts, Shelton said they are "getting hit every year," and these cuts are building "a backlog of payments ... so you're forced to stretch out programs, ... reduce capability, ... somehow adjust each of those programs." The other option is to "downright kill" some programs, but "on the space side, everything we're doing is really replacement capability; it's not anything that's a brand-new development."



Shelton: Space is at rock bottom.

Shelton said he's taking "\$100 million worth of risk in weapon system sustainment just to get through the year." For Fiscal 2014, there will be "deferred system engineering, deferred depot maintenance, deferred spare parts that don't get bought," he explained. "So we are getting increasingly into a break/fix mentality, rather than the standard preventive maintenance activities that we would like to do." Making those cuts represents "a lot of risk, but you can only do that for one year. So come [Fiscal 2015], I have no idea how we're going to adjust to even further reductions if sequestration continues."

# **DON'T FENCE ME IN**

Air Force Space Command closed its old Space Fence in September, a move that saved only \$14 million but highlighted the lengths AFSPC has gone in order to meet sequester targets. A new Space Fence is needed to get a better handle on tracking space debris, but budget tightening has delayed the program.

"While \$14 million may not sound like much money, I am literally scraping together pennies to make nickels, nickels to make dimes," said Shelton.

The old Space Fence beamed a wall of energy into orbit from three locations across the southern US, detecting objects as they passed through the beam. When it went dark, AFSPC used an optimization system to realign other sensors in its space surveillance network to "take up the slack," Shelton said. This included repurposing radars in Florida and North Dakota. It has worked well, and "there is no gap in capability" relative to what AFSPC had under the old Space Fence.

However, neither system offered the granularity that AFSPC thinks it needs

"The models tell us there's about 500,000 man-made objects in space right now," Shelton explained. "We routinely track 23,000 of those because of the limits of our sensitivity." The smallest items AFSPC can track now are about 10 centimeters (four inches), but objects are "lethal down to about two centimeters." Between one centimeter and 10 centimeters, there are probably about "470,000 objects that we're not tracking."

A new Space Fence in the works will increase sensitivity to track objects as small as five centimeters (two inches), he said.



#### **Aperture**

The command was ready to award a contract "in the late spring, early summer," but the Defense Department's Strategic Choices and Management Review put a hold on it, he said. The earliest a contract could be awarded now will be next spring, "which is going to give us about a one-year delay in the initial operational capability," Shelton noted. "Plus it'll cost us an additional \$70 million" because stretching the program requires keeping people waiting.

The program may not get the go-ahead now, he acknowledged. That would leave AFSPC unable to track "hundreds of thousands" of objects. It would also compel AFSPC to undertake service life extensions and upgrades "in our other sensors to accommodate the loss of the capability of that new fence."

The movie "Gravity," which hit theaters in the fall, was an excellent primer for the general public on the hazard space debris presents to "fragile spacecraft," Shelton said.

"We don't see enough" of the dangerous space junk on orbit, he said. "We know that translates into hazards, ... particularly in low Earth orbit, ... [to] things like the International Space Station" and "some of our highest-value assets for national technical means" of collecting intelligence.

Separately, he needs to fund a replacement for the Space Based Space Surveillance system, a satellite that will "probably run out of life in the 2017-2018 time frame," Shelton said. It's a "must have" and he's hoping it survives the pre-Fiscal 2015 budget scrub. The good news is that members of Congress seem to be supportive of a new Space Fence and the SBSS, he said.

## **ASIAN FUSION**

With frequent famines, a ruined economy, crumbled industry and a large, potentially nuclear-equipped military, North Korea seems ripe for a sudden, violent political collapse—with regional repercussions so severe and chilling that plans must be made now to deal with them, or they will be even worse, according to a new RAND study.

"Preparing for the Possibility of a North Korean Collapse," by Bruce W. Bennett, suggests that North Korea could fall apart in years or even months, "causing an immense humanitarian disaster" that would destabilize the region and could create the conditions for accidental war between the US-South Korean alliance and China.

Conditions are already near intolerable in the "Hermit Kingdom," Bennett argued. "Considerable violence and upheaval" would attend the assassination of Kim Jong Eun—who reportedly survived such an attempt last year—especially with no clear successor in sight, he wrote. Bennett predicted factions within the North Korean military would quickly move to seize power if Kim were absent, causing civil war. Millions of North Koreans could become refugees, heading for South Korea or China. Neither country, he said, wants the influx of people or has the immediate capacity to deal with it.

All three countries—the US, South Korea, and China—would likely have to intervene militarily. Both the US-South Korea alliance and China would have "significant incentives to advance rapidly" into North Korea, especially in a dash to seize the North's nuclear facilities, Bennett asserted. This could lead "to a risk of accidental combat between them." The indigenous military factions would have to be neutralized to ensure food aid is not "immediately stolen" from the people who need it.

"In the zeal of the moment, the inevitable accidents could escalate into major combat between the ROK [Republic of Korea] and US forces and the Chinese forces, one of the worst possible outcomes." Even if that's avoided, "the North Korean military forces would almost certainly oppose both interventions in some combination of regular combat, insurgency, and criminal behavior," Bennett forecast. This could be extremely damaging to the South. It could suffer missile and artillery attacks on its cities and attacks on government and infrastructure from North Korean special forces. These could be

made worse by use of weapons of mass destruction, and the US and Japan "would not be immune" to homeland attacks by missile or terrorist action.

The US and South Korean Presidents agreed at 2009 and 2013 summits that peaceful unification is their goal. But if China ends up controlling the North, the peninsula is doomed to partition "for at least many more decades," Bennett warned.

## **MANAGING ONE KOREA**

As a starting point, Bennett continued, an information operations campaign is needed to overcome decades of North Korean public indoctrination painting the US and South Korea—portrayed as a US puppet—as the source of all of the North's problems. The North Korean public must be convinced that a better life would result from unification.

A nationwide aid distribution plan must be developed to keep the North Koreans in their homes, Bennett said, and it would have to be a military operation because of the scale of the effort as well as the need to prevent the aid from being seized by military units. This operation would probably have to be led by an air campaign against the North's air defense network so that relief aircraft can get through.

"Local" Democratic People's Republic of Korea (DPRK) officials would have to be turned with promises of amnesty and their forces swiftly disarmed, putting those troops to work on national reconstruction and infrastructure projects, Bennett said. It would be useful to keep some number of DPRK officers and troops in uniform "for a year or more" to impose military discipline and complete debriefing, among other things.

A tough problem would be gaining quick control of the DPRK's nuclear capabilities. They are dispersed and many are at sites not yet known, Bennett said. On the plus side, the presence of unsecured WMD might be a reason that US/South Korean and Chinese forces might cooperate, he noted.

As with German reunification in the 1990s, a thorny issue will be property, since the DPRK technically "owns" nearly everything in North Korea. Ownership could be conferred on those already in place if they agree to stay on for some period of time, Bennett suggested, thus attenuating the refugee problem and reducing the economic problems of people selling their newfound property immediately to secure a financial windfall. South Korea "should plan to compensate pre-North Korea landowners," he said.

China is the wild card. Certainly it would not want a massive US military presence on its frontier, Bennett said. It may try to beat the US to DPRK nuclear facilities and seize them and would likely create a buffer zone inside North Korean borders to keep refugees in camps instead of allowing them into China. China would be interested in North Korean ports and its "mineral wealth." But it would also want a rapid return to stability in the region.

South Korea is slated to reduce its Army from 22 divisions to 12 in the next 10 years, meaning it would have "insufficient forces, even with significant US participation, to fully handle the various challenges of North Korean collapse," Bennett observed. The Chinese might help—but at the price of its annexation of "some significant portion of the North."

Consequently, Bennett suggested the US and South Korea engage now with China on developing cooperative plans for North Korea's collapse. "China appears to be increasingly ready to address this difficult issue," he said.

For its part, South Korea should begin preparing its people for the costs and difficulties that will attend unification, Bennett said. The South Korean Army should "sustain more combat power as its size decreases in coming years," he recommended. South Korea needs to strengthen its military reserve system, and Bennett suggested that "third-country forces" might be brought into unification planning, as well.