

Spy-sat rescue

Obama's proposal to prevent a gap in coverage sparks debate, optimism

By BEN IANNOTTA

When U.S. Director of National Intelligence Dennis Blair met with President Barack Obama in February to discuss a proposed new constellation of multibillion-dollar imaging satellites, the resulting series of conversations was unusual and maybe unprecedented in the country's decades-long history of using orbiting cameras to spy inside foreign borders.

In April, Obama accepted a recommendation from Blair and Defense Secretary Robert Gates that within months could result in a contract award to Lockheed Martin — the incumbent imaging contractor — to build a constellation of Next Generation Electro-Optical System satellites. While work proceeds on those satellites over the next decade, coarser-resolution commercial imaging satellites would serve as “a near-term supplement and backup” to the government's aging spy satellites, according to a statement from Blair's office. The Pentagon, which relies on imagery from the companies DigitalGlobe and GeoEye for wide-area maps and surveillance, would be in charge of that aspect of the strategy.

Obama's personal involvement in formulating a satellite acquisition proposal to Congress was “very unusual,” said a retired intelligence official. U.S. presidents often receive briefings about spy satellite capabilities

at times of crisis, the official said, but he did not know of another president being involved in acquisition planning. That is normally left to the intelligence community, which manages construction of spy satellites and operates them through the National Reconnaissance Office. Acquisition proposals are accepted indirectly by presidents when they sign off on their classified budget requests to Congress.

Obama's decision to involve himself directly probably reflects the national security “significance” of the possible gap in spy satellite coverage facing the U.S. in the wake of the 2005 collapse of the Future Imagery Architecture (FIA) satellite development program, said the retired official, who has advised the Obama team. In October, Al Munson, now Blair's deputy for acquisition, spoke publicly about what he called the “fragility” of the constellation following the failure of FIA, pronounced fee-ah. “Thank God we did long-lived designs,” he said.

Over the next months, intelligence officials, members of Congress and their staffs are expected to debate the cost and technical wisdom of the Obama administration's Next-Generation Electro-optical System proposal, which amounts to a recovery plan from the FIA collapse.

The NRO started the FIA program in 1999 with a goal of replacing today's spy satellites with a system that would blend visible-light imagery with other kinds of satellite imagery.

GeoEye satellite imagery shows U.S. President Barack Obama's inauguration ceremony in Washington.

Exactly how FIA was going to do that remains classified. The government canceled most elements of the program after discovering technical mistakes on the part of the prime contractor, Boeing. The program's estimated cost had swelled by a factor of three to four.

When the government canceled FIA, the NRO restarted what intelligence officials call the “legacy production line.” Lockheed Martin was put on contract to build “a couple” of new satellites, in the words of a person familiar with the history, as a stop gap, which is where the matter stood until Obama's intelligence team picked up the matter not long after the inauguration.

Whether the U.S. should continue its longstanding approach of launching a few, giant imaging satellites, which is what the Obama administration proposes, is likely to lie at the center of the debate that some officials warn must be a short one. Others favor launching a proliferation of smaller satellites.

Sen. Christopher “Kit” Bond of Missouri, the top Republican on the Senate Select Committee on Intelligence, has emerged as the leading advocate of the more-numerous-satellite option. He staked his ground in a March 16 letter to Blair: “You are asking the taxpayers to pay more for a single article than we paid for the last Nimitz class aircraft carrier,” he wrote two weeks before Blair and Gates reached their agreement on what is now known as the “electro-optical way ahead.”

“People have been fighting about this for too long. It's got to stop,” said the retired in-



GEOEYE

FINDING THE WAY AHEAD

At the request of the Obama administration, five retired defense and intelligence officials conducted an "Electro-optical Way Ahead Review" in the weeks before the administration released the outline of its spy satellite proposal.

Paul Kaminski, chairman
Undersecretary of defense for acquisition and technology, 1994-1997. Chairman and CEO of Technovation Inc.



John Deutch
Director of Central Intelligence, 1995-1996. A professor in the Massachusetts Institute of Technology Department of Chemistry.



Peter Marino
Lead director of Argon ST, 2004-present. Chairman, National Geospatial-Intelligence Agency advisory board. Member, National Reconnaissance Office advisory board. Authored 2007 "Marino Report" on commercial remote sensing.



Martin Faga
Director of the National Reconnaissance Office, 1989-1993. Former president and CEO of Mitre Corp., where he serves on the board of trustees. Now a consultant.



Retired Air Force Gen. Thomas Moorman
Vice chief of staff, U.S. Air Force, 1994-1997; commander and vice commander, Air Force Space Command, 1990-1994. Chairman, Space Foundation Board of Directors.



telligence official. A senior intelligence official said a contract might be awarded "within months," and the "first copies of this full architecture" deployed within the next decade.

America's electro-optical spy satellites are the equivalents of Hubble Space Telescopes with their mirrors turned earthward. Some industry officials and policymakers had argued for switching to a constellation of more numerous, lower-flying imaging satellites. The satellites would have to fly lower to compensate for the weaker vision of their smaller mirrors, but they would be less expensive than the giants.

With the debate shifting to Congress, advocates of the Obama proposal worry that too

much emphasis on cost could produce echoes of FIA.

"We underfunded [FIA] and then with the help of Congress we cost-capped it for two years of the program," Munson said in April, after giving a presentation at a Defense Intelligence Agency conference in San Antonio. "Unfortunately, early in a program what you throw overboard sometimes comes under the rubric of systems engineering." Munson called this mistake "the gift that keeps on giving."

The Obama proposal seeks to reverse the management and contracting approach of FIA. In 1999, the U.S. government selected Boeing over Lockheed Martin to lead the program —

a decision that some industry and retired officials now contend was the root of the problem. Lockheed had a long track record in spy satellite construction, they said, but the Clinton administration was determined to create a competitive marketplace in which prime contractors would make decisions without what some acquisition experts considered excessive government oversight.

Under the Obama plan, the country is likely to rely mostly on Lockheed Martin for its spy satellites once again — "no decision has been made on precisely the acquisition approach," a senior intelligence official said. That is not to say Boeing would be shut out of the business. The company continues to work on a classified element of what was FIA. NRO Director Scott Large has said his agency has restored its oversight of contracts, and that Boeing's performance has improved.

Based on Bond's letter, questions over the thoroughness of the Obama administration's review might also feature prominently in the debate.

The administration launched an independent review of options after a February meeting between Blair and Obama. "The president asked the DNI, 'What are you going to do?'" said the retired intelligence official who helped advise the Obama team. Blair asked Paul Kaminski, a former Clinton administration defense acquisition chief, to assemble a panel of retired defense and intelligence officials to examine the administration's then-internal proposal against alternatives.

Kaminski told the panelists not to feel pressure to reach a consensus. Blair wanted to hear dissenting views, if there were any.

"After two or three weeks of arguing with each other, we all came out at the same place," Kaminski said. The members, in a classified briefing to Blair and Gates, recommended an approach similar in scope to the administration's internal proposal and the one Blair and Gates eventually agreed to present to Obama.

In his letter, Bond blasted the review team's work, saying it was "incomplete" and "substantially contradicted" by a review undertaken by the NRO and CIA. Kaminski defended the panel's work. For starters, he said he could not have briefed the staffers on his group's findings because the briefing was given "before we reached our final recommendation."

Kaminski also defended the panel's comprehensiveness. "What this letter confused is the recommendation in a letter from CIA and NRO on another issue," he said. The specifics of that issue are classified, but "what he was talking about was a program that was a possible part of the architecture."

All told, the panel examined 11 or 12 alternatives, including the approach favored by Bond. Another panel member said: "Everybody has a design gimmick. It's one of the reasons the DNI called us in." As for the meeting with staffers, the Kaminski members sought to convey the message: "This is physics. It's not politics. You can't change these relationships."

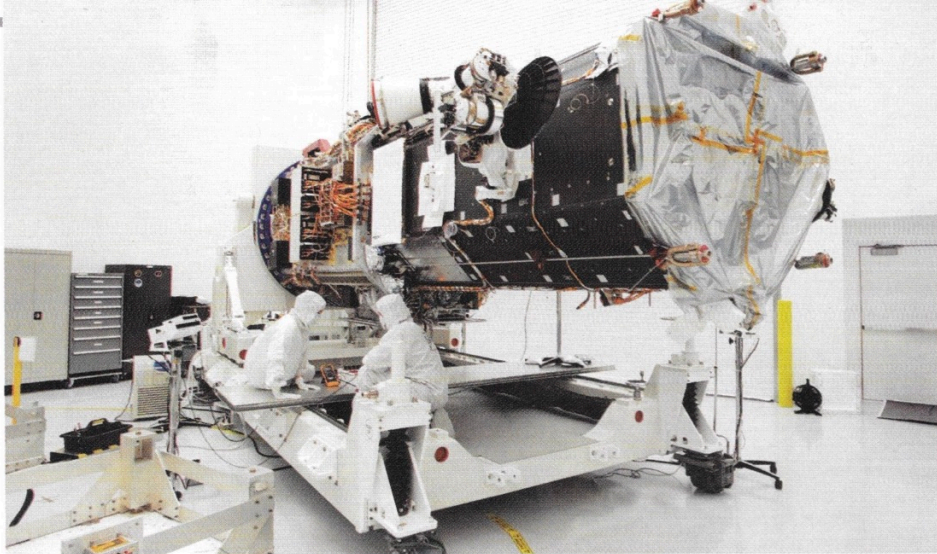
The proposal favored by Bond had too many technology question marks, this panel member said: "There's serious work being done on it, but it's not ready." He described it as an "R&D" — research and development — effort.

The panel member said classification rules barred him from discussing specific capabilities of the low-flying proposal. "However, we did point out that flying lower works both for you and against you. You then don't see as far off to the side."

First and foremost, advocates of the Obama proposal said they wanted to avoid reaching too far down the technology path on the new program. The senior intelligence official described the proposed satellites as "standard, high-performance workhorses." The official spoke during a teleconference organized by Blair's spokeswoman Wendy Morigi to announce the satellite initiative.

Whether or not the administration can avoid a FIA-like surprise remains to be seen. Morigi provided a modicum of insulation between Obama and the proposal. In the briefing, she underscored that Obama "accepted" a recommendation from Blair and Gates. It was Blair and Gates who approved the plan.

As for the commercial element of the proposal, officials at DigitalGlobe of Colorado and GeoEye of Virginia are eager to decode a critical passage in Blair's April 7 news release: "The Department of Defense and Intelligence Community would increase the use of imagery available through U.S. commercial providers," the news release said.



DIGITALGLOBE

DigitalGlobe's WorldView-2 imaging satellite is being prepared for launch by October.

The senior intelligence official said the government "will be expanding the commercial agreements" with DigitalGlobe and GeoEye "which allows them to make business decisions to provide additional satellites in their infrastructure."

The commercial contractors wonder if that means upfront investment by the government in additional satellites, in exchange for imagery discounts later on. DigitalGlobe and GeoEye built their latest satellites, under a \$1 billion government program called NextView. The National Geospatial Intelligence Agency awarded a \$500 million NextView contract to DigitalGlobe in 2003 and a roughly equivalent contract to Orbimage, now GeoEye, in 2004. The funds covered about half the satellite construction costs. The money was a down payment on imagery the government now receives at what amounts to a 50 percent discount from commercial prices.

"We think NextView is a great model. I don't know if that's the model for the way forward or not," said Matt O'Connell, CEO of GeoEye.

NextView ended with those satellites. DigitalGlobe raised funds on its own for its WorldView-2 satellite, which the company plans to launch by October, said marketing manager Chuck Herring.

GeoEye has spent about \$30 million of internal funds to start work on its proposed GeoEye-2 satellite, which it hopes to launch in 2012. GeoEye hired ITT about a year and half ago to start work on the mirror and some long-lead items, O'Connell said. Next, GeoEye must select a company to build the satellite frame.

ITT is manufacturing the GeoEye-2 mirror so that it could produce a resolution as fine as 25 centimeters, but GeoEye officials have not decided yet whether to build the satellite to fly low enough to meet that resolution.

"Is this the level of resolution they'd want? We haven't gotten any indication on that" from the government, O'Connell said.

The administration's decision to put the Defense Department solely in charge of the relationship with the commercial industry

represents a divorce. Last year, the intelligence community and the Pentagon had agreed to work jointly to build a pair of government-owned and operated satellites that would be cookie-cutter versions of the commercial satellites. NRO would have bought the satellites using defense dollars rather than intelligence community funds. Military commanders wanted the satellites, which would have been called the Broad Area Space-based Imagery Collector (BASIC), so they could point the satellites wherever they wanted without worrying about the business impact on the commercial companies, or paying more for the imagery because of short notice.

Congress declined to fund BASIC after complaints from GeoEye and DigitalGlobe.

The Obama proposal places responsibility for commercial-class imagery squarely in the hands of the Pentagon but it does not say whether any attempt would be made to restart BASIC without the intelligence community.

One thing is certain: During the BASIC funding fight in 2008, the Pentagon was adamant about the requirement for a constellation of mapping and surveillance satellites that commanders could control themselves, in addition to buying commercial imagery.

"We see BASIC being integrated with current operations more tightly than we could ever tie [commercially operated] elements. These targets and operations will have operational security implications that the combatant commander may not be comfortable supporting with a commercial imagery purchase," said Gary Payton, the Air Force's deputy undersecretary for space programs, in a June 2008 statement.

What is certain is that America's satellite industry and members of Congress have a sense that change has come to their corner of America. They are greeting the Obama proposal with a mix of criticism, questions, and optimism, especially in the case of the commercial satellite operators. ■

Gayle S. Putrich contributed to this report.