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COMMENTARY

Kept in the Dark

Secrecy is a two-edged sword

Most often, military technology is kept secret for the same reason that Mycroft Holmes cited when he enlisted his brother Sherlock's help in the little matter of the Bruce-Partington plans.

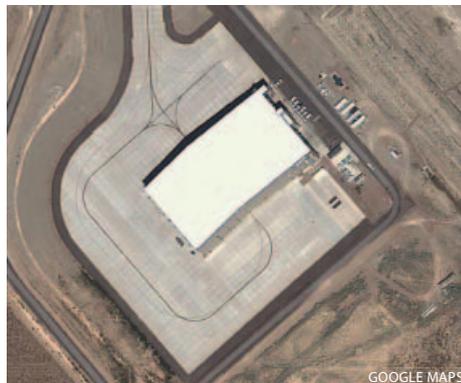
The fictional submarine was so effective that "naval warfare becomes impossible within the radius of a Bruce-Partington's operation." The security measures that protected the "black" world's most famed projects—the U-2, the original A-12 Blackbird and F-117 aircraft, and the Corona imaging spacecraft—were justified by the fact that their capabilities went beyond what the outside world believed to be possible, and promised technical surprise that would shift the military balance.

Other incentives for secrecy lie in procurement politics. The black world, one black-project engineer suggested to me some years back, is like Australia: an isolated environment where strange creatures can evolve to maturity without being lobbied to death by established competitors.

Add a 21st century factor: Special Access security procedures, which have their roots in an era when computers were people who did calculations, but they nevertheless make life harder for the cyberespionage operator. They are so cumbersome that going the extra mile, by air-gapping the information systems from the rest of the net, is an additional pinprick.

Those advantages have to be weighed against negatives that begin with a 15-20% cost penalty.

The expression "pearls too precious to wear" was heard loudly in and after the first Persian Gulf war, where commanders who needed strike damage assessment and other overhead imagery found it virtually impossible to get it from U.S. reconnaissance satellites, let



alone to task the spacecraft to respond their needs. The Air Force says it has learned lessons and improved its procedures, which would be a good thing.

Secrecy distorts debate. A House Armed Services Committee hearing in April bordered on farce. The Air Force has been trying for a couple of years to reduce its fleet of Global Hawk unmanned air systems, because the big UAS is no more survivable than the much less costly General Atomics MQ-9 Reaper; while protecting a classified stealth UAS under development by Northrop Grumman. In that hearing, Lt. Gen. Charles Davis, the USAF's senior acquisition officer, practically had to play charades to convince Rep. John Garamendi (D-Calif.), whose constituents fix Global Hawks for a living, that the Air Force did have a reason for disfavoring his pet bird, without exactly saying what it was, because it was secret.

Not that it helped. Secret programs have invisible workforces supporting them, which would not be a problem except that they do not have political action committees that send checks to

campaign offices, and invisible checks cut little ice in Washington. So we pay extra to keep the stealthy aircraft under wraps, and pay for Global Hawks that the air force says it does not need.

The new Northrop Grumman aircraft, by many accounts, is a remarkable and useful blend of aerodynamic and signature technology. We don't know, however, whether such secret successes are typical or outliers. What we do know—from powerful circumstantial evidence such as budgets, the mid-1980s expansion of the Groom Lake flight-test center (see photo) and the size of parking lots in Palm-dale, Calif.—is that the black-aircraft enterprise has been in high gear for 30 years: and yet USAF ramps are full of aircraft designed in the 1970s. What were they doing, all those people boarding unmarked 737s at Las Vegas airport at 0-dark-30?

Australia's desert is a good place to bury failures. The quest for a stealth UAV started with Quartz—an autonomous system intended to fly from U.S. bases and loiter for 24 hr. over a fully functioning Soviet air defense system. It was close to technically impossible, lived and died amid a running battle between the military and the intelligence community about its mission, and it cost almost a billion dollars for a mock-up. By the time the more recent Future Imagery Architecture satellite fiasco became public, the horse was not only out of the barn but in the next county but two.

And finally, how well does secrecy work? Aviation Week readers have known for five years that Northrop Grumman has a major secret program on its books, and for two years that it was the solution to the Case of the Missing UAS—that is, a very obvious gap in the Air Force's planning (*AW&ST* Aug. 29, 2011, p. 46; Dec. 3, 2012, p. 29). If we know that much, what does the Chinese intelligence community know? People in charge of security habitually underestimate what the adversary (or an open-source researcher) can find out.

Remember what Mycroft told Sherlock about the Bruce-Partington submarine: "Surely you have heard of it? I thought everyone had heard of it. . . . It has been the most jealously guarded of all government secrets."