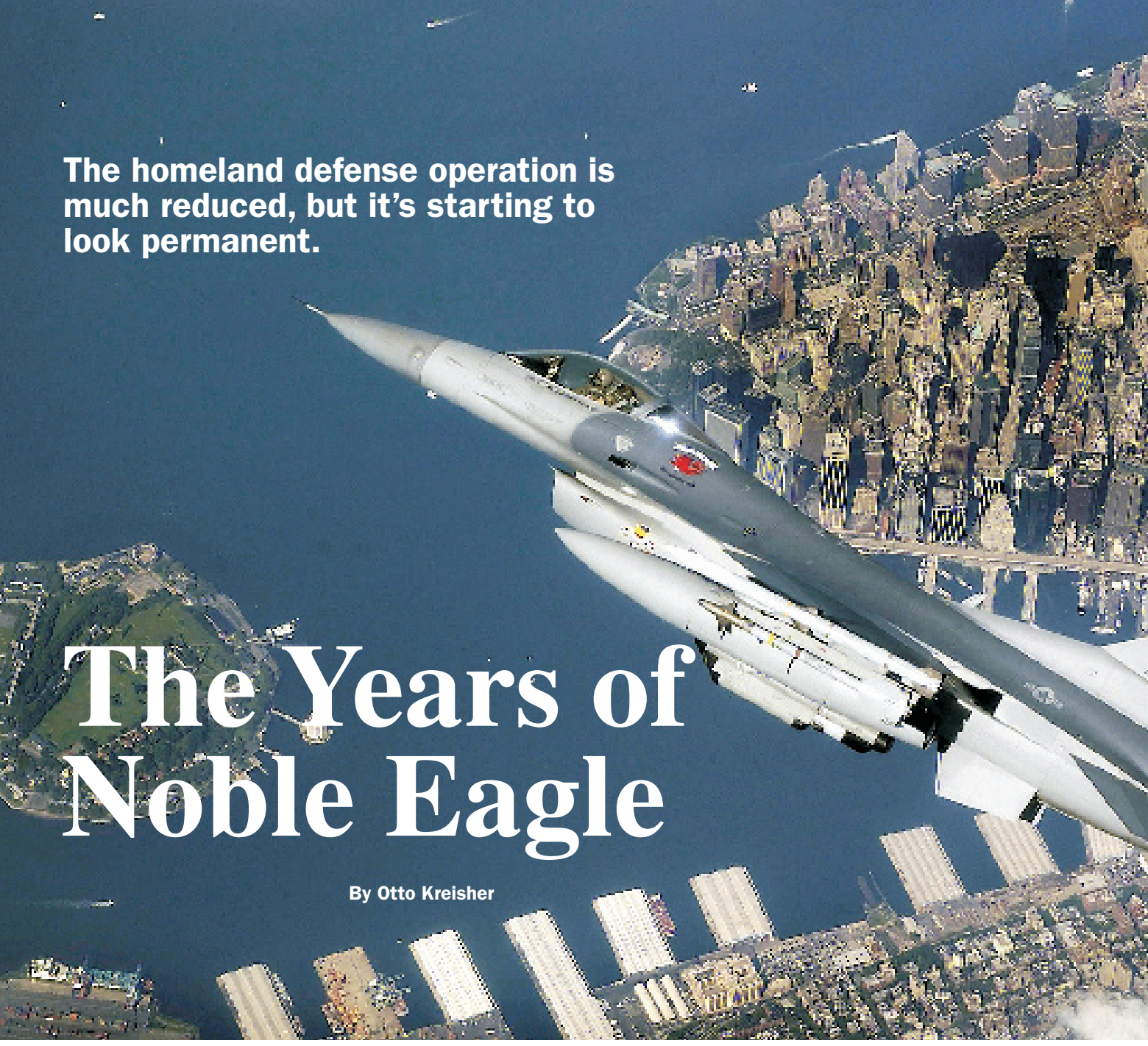

The homeland defense operation is much reduced, but it's starting to look permanent.

The Years of Noble Eagle

By Otto Kreisher

Operation Noble Eagle, the extensive air defense effort designed to prevent a recurrence of Sept. 11, 2001-style air attacks in America, is about to cross a major threshold.

The nation's civilian and military leaders are starting to regard the costly air defense operation above the nation's cities as a permanent defense requirement demanding significant attention from the US Air Force.

They say that, despite substantial improvements in US aviation security, the Air Force must plan to keep this six-year program of combat air patrols going full-bore indefinitely.

As of March, Noble Eagle aircraft had flown some 44,000 sorties and had been diverted from patrols or scrambled from strip alert more than 2,200 times in response to threatening activities.

The operation has cost more than $27 billion, according to a recent report prepared by the Congressional Research Service, but it has helped prevent any additional horrific attacks on the US.

No one in authority is needed to declare an end. Gone are the days when Noble Eagle was viewed as a temporary expedient. Now, the focus is on improving command and control of the homeland air defense mission.

Officials want to tighten the command structure and enable the Noble Eagle network to detect threats sooner and communicate better with the pilots who fly the air sovereignty missions.

Also under way is a search for technology that might provide an alternative to the nightmare scenario: Fighter pilots being forced by circumstances to shoot down a hijacked airliner filled with innocent passengers.

At the command level, military of-

An F-16 from the 20th Fighter Wing, Shaw AFB, S.C., soars over New York.

ficials are interested in finding ways to reduce ONE's burden on Air National Guard fighter squadrons, which have borne the brunt of Noble Eagle missions throughout the post-Sept. 11 period without any additions of machines or manpower. So far, however, the effort has enjoyed no obvious successes.

One of Noble Eagle's keenest observers, Canadian Air Force Lt. Gen. Eric A. Findley, has watched the development of ONE from his position as deputy commander of North American Aerospace Defense Command, the US-Canadian organization based at Peterson AFB, Colo. In his view, the story of Noble Eagle has been one of "continuous improvement" since the attacks.

"I was here [at NORAD] on 9/11, so I know what NORAD's mission was just prior to 9/11 [and] how we transformed," said Findley. "We had to put some Band-Aids, if you like, in place. ... The Band-Aids are gone now, with some more permanent solutions."

Coming a decade after the end of the Cold War, the attacks of 9/11 found NORAD's once potent air defense capabilities sharply reduced and oriented in the wrong direction—looking outward, beyond US borders, for threats, rather than inwardly to actions over US territory. It was unable to respond fast enough to intercept any of the hijacked airliners, which took off from airports in the Boston, Newark, and Washington, D.C., areas and slammed into targets in New York and Washington and into an empty field in the Pennsylvania countryside.

Embracing the Mission

By nightfall, however, NORAD had established continuous air patrols over most of the major US cities, using scores of Air Force, Navy, and Marine Corps fighters.

Over time, that burdensome and expensive air shield was scaled back, with the military settling in to a pattern of strip alerts at about two dozen air bases around the country, all of which were supplemented with irregular air patrols over key cities and more extensive air cover for short periods over high-profile events. (See "Noble Eagle Without End," February 2005, p. 42.)

"For the first five years, we were in a crisis management mode," said Lt. Col. David Miles, air sovereignty alert commander for ANG's 113th Wing at Andrews AFB, Md. "Finally, last year they got serious and decided they have to embrace this mission and get it right."

Those changes reflect NORAD's determination that Noble Eagle is here for the long haul, an attitude shift that the District of Columbia ANG officer said he noticed at a recent Noble Eagle conference in Colorado.

Findley agreed that NORAD now believes that Noble Eagle "is going to be an enduring mission," continuing until someone can say the threat has been reduced, "and we can go back to something a little less rigorous."

That view remains despite the improvements in air traffic security, such as enhanced screening of airline passengers and luggage, reinforced cockpit doors, air marshals, armed pilots, and better intelligence sharing on terrorist threats.

As each new security procedure was put in place, "it made us feel better and we were able, with the approval of the national command authorities, to ratchet down the number of air patrols, [and NORAD] reduced the number of alert sites overall," Findley said.

"We don't have anywhere near the alert sites and air patrols that we had before," but "what we don't have yet is that warm fuzzy feeling" that the threat is gone, he said. "So we're not going to ratchet down much more. ... The reality remains that we're still concerned with aviation in general."

The threat is not limited to big commercial airliners, the general said. It could also come from general aviation, corporate jets, and cargo haulers.

That view is shared by pilots who are flying the missions.

"This is not something we can give up," said Lt. Col. George Degnon, commander of the Air Guard's 121st Fighter Squadron at Andrews. He expressed concerns about foreign airliners approaching the US from countries lacking rigorous airport security measures of the type seen in the United States.

Findley agreed, noting that US and Canadian officials "have worked really hard with other nations trying to get the same security standards in place. That has happened in a lot of nations. But there is that worry."

The Air Guard pilots at Andrews said they face an exceptional challenge because of the large number of potentially high-value targets within the relatively tight confines of the National Capital Region. The nation's seat of government in Washington, D.C., falls within a restricted air zone with an approximately 34-mile radius.

The pilots said they are confident the air defense system will work when needed.

The process "gets exercised a lot, to make sure it's viable and can get done," said Lt. Col. Lance Etne of the 113th Operations Group. The pilots who stand on alert missions at Andrews said they are prepared psychologically to engage a civilian aircraft, if required, despite the emotional impact it would bring.

"Nobody wants to do it," Degnon said. Whoever has to fire that shot "is never going to be the same," he said, but "everyone is—I know for certain—ready to make that sacrifice."

USAF photo by TSgt. Ben Bloker

Two crew chiefs from the 71st Fighter Squadron conduct final preflight checks before a sortie for Operation Noble Eagle.

NORAD's commanders are aggressively seeking nonlethal means to stop a threatening aircraft.

"We have identified that requirement," Findley said. "There are a number of technologies and processes being explored for nonlethal means of dealing with aircraft," he said. "They're highly classified. It's just going to take a while to develop those technologies and to get the cooperation of those who sell aircraft to allow us to use those means."

The beginning of the Noble Eagle mission also required fighter pilots to revise their combat tactics.

"We've spent a hundred years in the Air Force learning how to shoot down bad guys in a fighter jet, [in] bombers, and things like that," said Maj. Jeffrey Bozard, a pilot in the 121st. "But this has brought out a whole new set" of potential targets, from airliners to small, light, civilian aircraft.

"We had to develop our own training plan," Degnon recalled. "We already had all the basics; ... we just had to modify the tactics to the threat we were facing. You're talking low, slow, at night. There wasn't much written [in] tactical manuals on how to do this. Everyone developed game plans, what we thought would work best, then began ... trying to formalize the tactics."

Training for the new mission was a problem, however, because the 113th simultaneously had to stay prepared for its routine Air and Space Expeditionary Force rotations. The unit has deployed to Iraq twice since 9/11.

"We're supposed to sit alert. And we're supposed to prepare for an AEF deployment. We're not supposed to do both at the same time," said Degnon, the squadron commander, describing the problem he faces. "Guess what? We have to do them both at the same time."

The preparation for deployment begins months in advance and requires spin-up training. The original orders were for air defense units such as the 113th to "take the number of pilots ... and the number of jets that you currently have, [and] put some on alert so they're not available for your day-to-day training," said Bozard. This "took a big bite out of our local training."

One way the Guard has been able to handle this problem is to rely on the experience of its pilots, who average twice the flight hours of pilots in most active duty Air Force fighter squadrons, he said.

Another way the Air Guard has coped is by virtually reversing the ratio of traditional, or drilling Guardsmen, and full-time members.

"Before 9/11, we had 32 pilots, six full-time, 26 traditional," Degnon said. "Now, it's the reverse, maybe seven traditional, 25 full-time."

That shift had not been a problem for the pilots, who are "highly motivated and get paid enough to live in a place like D.C.," Miles said. "But the enlisted folks, particularly on the maintenance side—it's tough to live in D.C. on E-5 pay. Trying to keep those guys ... has been a challenge."

Underpaid, Overworked

Degnon said his squadron was fully manned for pilots—but had only 65 percent of its required line maintenance personnel. "The guys on the line, who are fixing the jets, they're underpaid and really are overworked."

Findley acknowledged the burden on the Air Guard and said NORAD has tried to find ways to reduce the load.

"I think we've done a reasonably good job over the last few years of necking down a lot of the requirements on the Operation Noble Eagle side," Findley said, to let air defense units conduct the other training missions they need

USAF photo by Amn. Shane Dunaway

A KC-135R refuels an F-22 from Langley AFB, Va., as part of the Raptor's first operational mission, which was in support of Noble Eagle.

USAF photo by MSgt. Scott Wagers

Maj. Tom O'Berg sprints to his F-15 at Elmendorf AFB, Alaska. Noble Eagle pilots respond in minutes to unidentified aircraft approaching US airspace.

to perform. "The reality is, however, that they still have to stand the alerts and train for that mission."

The constant training breeds confidence. "It's pretty clear to me, in the cockpit, how that authority is going to come and how I'm going to get the authority to push the pickle button," said Etne. "Now, how many wickets it has to go through to get me that information, I'm not sure."

With the small restricted zone around Washington, the decision to shoot down a threatening aircraft must be made in "minutes, if not seconds," Miles said, "so this fight starts well before the [alert] button gets pushed. It's the intel, the FBI, the CIA, those agencies that are doing the good work to make sure that situation never happens."

"We recognize that the [34.5-mile] aircraft identification zone in the National Capital Region is really kind of a last resort," Findley said. NORAD is, therefore, working closely with the Federal Aviation Administration to correlate information "as early as possible to give us more time, if we need it, to go out and do a visual identification or an intercept."

Meanwhile, the Noble Eagle command structure has changed dramatically, with the creation of US Northern Command to incorporate NORAD into a comprehensive defense of the nation on the ground and in the coastal waters, as well as in the air.

A major improvement came from integration of NORAD's radar and communications networks with the FAA systems, which allows almost instant alert to NORAD and NORTHCOM if an air traffic controller notices unexpected activity by an airplane.

Even more changes are under way at Cheyenne Mountain AFS, Colo., which now holds the command post for both NORAD and NORTHCOM.

A new battle control system has been installed, and the two commands' staffs are being combined in a move former commander Adm. Timothy J. Keating said "will provide increased combat effectiveness" for both organizations.

Air Force Gen. Victor E. Renuart Jr. relieved Keating as head of the two commands on March 23.

The staff merger will tie the air defense system into NORTHCOM's surveillance and security networks on the land borders and the coastlines.

"I think that situational awareness in all domains will enhance the overall air situational awareness," Findley said. NORAD releases show that the Capital Region is protected by "a multilayered air defense" that includes short-range missile systems such as the man-portable Stinger and the vehicle-mounted Avenger.

There also is a ground-based visual warning system. It uses alternating eye-safe red and green laser lights to alert pilots that they are flying without approval into restricted airspace.

Because of the importance of early identification, NORAD's "No. 1 operational requirement," Findley said, is "persistent wide-area surveillance."

One possible way to achieve that would be with a high-altitude airship. (See "Are Airships for Real?" November 2006, p. 67.) A large, unmanned blimp "would get some radar and communications airborne for us. It's one of many ... solutions to the lingering difficulties with the mission.

"We recognize there is no one particular technology that's going to be able to do everything we need," Findley said. So NORAD is studying "something like 20 different types of things that could contribute to [situational awareness]. None of them are really perfect in their own right. But if you put them together, you get a much, much better picture."

That information is not much good "unless you have some place that can take it, fuse it, and pull it together," he said. NORAD is "upgrading a lot of [its] communications. I think our first priority really is getting [reliable communications capability] to the warfighters and the support aircraft, so we can operate anywhere in North America and talk to anybody at any particular time. That's coming along rather nicely."

Part of the problem, the Air Guard officers said, stems from the fact that the Air National Guard has no formal representation at NORAD.

"The expertise as to who's been doing this mission, doesn't exist at NORAD," Etne said. "A lot of the issues we have aren't being addressed."

"What we do need to work on next is trying to get a little bit more of that expertise into the headquarters at NORAD," Findley admitted.

But, he added, the chief of staff for NORAD and NORTHCOM is Maj. Gen. Paul J. Sullivan, of the Ohio Air National Guard, and ANG Maj. Gen. Steven E. Foster is "the go-to guy" for many issues on NORAD's planning staff.

"We're going to be working hard over next few months, [through] a manpower review, to see where else we can incorporate the value added of the Air National Guard," Findley said. "We've run into some roadblocks here and there. What we need to do is remove those roadblocks."

Findley had nothing but praise for the Guard and its airmen, which he said are carrying the load of "as high as 82 percent of our air defense mission." ■

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