



Homeland Air Force

By Adam J. Hebert, Senior Editor

Two years after the attacks, USAF has settled into a steady state of defense operations in the United States.

Two F-15 Eagles from the Air National Guard's 102nd Fighter Wing, Otis ANGB, Mass., fly combat air patrol over New York.

IN THE days after the Sept. 11, 2001, terrorist attacks, the Air Force had to rebuild what had become, in the post-Cold War years, a largely backburner mission—air defense of US territory. In the two years since, the homeland defense mission has become ingrained in the service's day-to-day operations and is now creating a set of new requirements.

The overnight transition was possible because some 70 percent of Air Force assets can serve homeland defense or overseas missions. Reconnaissance and space assets monitor threats here and abroad, airlifters allow military and civil response teams to quickly reach Stateside disaster sites, and Air Force personnel trained to respond to weapons of mass destruction attacks can serve in both theater and homeland roles. The Civil Air Patrol, the USAF civilian auxiliary, has been a key contributor to homeland missions for years.

After two years, officials still consider the Air Force's homeland defense posture to be in "emergency mode." They say more changes are in the works.

In the chaotic days after 9/11, the Air Force benefitted from its experience with the most prominent of its homeland defense missions—defending the US airspace. As part of Operation Noble Eagle, the service flew round-the-clock combat air patrols conducted by armed fighter aircraft. It later moved to a greater reliance on "alert" operations in which fighters sit ready to take off on short

notice, much as they had done during the Cold War.

During the Cold War, though, some 100 sites had fighters on alert, ready to fly air defense missions. After the Cold War, that number was cut drastically—to just seven sites on 9/11. Today, the service has increased that number to around 18 alert bases. (The number may fluctuate due to perceived threats.) Each base has sitting on strip alert fighters that can be airborne, said officials, within five minutes.

The Air Force keeps a minimum of 35 fighter aircraft, eight refueling tankers, and a pair of E-3 Airborne Warning and Control System aircraft ready to respond to an airborne threat against the United States. Before 9/11, only 14 fighters and no tankers or ISR aircraft were kept on alert.

Compared to mid-2001, the service has more than five times as many airmen devoted to the alert mission.

Brig. Gen. David E. Clary, Air Force homeland security director, noted in an interview that there are numerous threats—and capability deficiencies—for USAF to address.

Leading the Noble Eagle mission is the Air National Guard's 1st Air Force, headquartered at Tyndall AFB, Fla. It is in charge of NORAD's continental US air defense region and runs the day-to-day air defense operation. First Air Force's air operations center, which is undergoing upgrades, puts together an air tasking order for all the aircraft involved in the air defense mission, just as is done for combat theaters overseas.

Focus Has Changed

Where that mission once was directed outward, it now must encompass threats from within and without.

Intelligence comes from NORAD's radar system, just as it always has. Now, however, it includes information from the Federal Aviation Administration's radar network, which covers the three million square miles of US airspace. Additional data about possible threats comes from tethered aerostat radars along the



The fighter force patrolling homeland skies works closely with numerous support aircraft. Here, a New Jersey Air National Guard KC-135 tanker refuels a New Jersey Guard F-16.

southern US border and from AWACS radar.

By mid-October 2003, the Air Force had flown more than 32,000 sorties supporting Noble Eagle. According to NORAD, more than 1,500 of those sorties were fighter intercepts of possible air threats. While Navy and Marine Corps aircraft assisted with CAPs in the immediate aftermath of 9/11, officials said air defense is expected to remain an Air Force mission at the current alert levels.

The threat of another terrorist hijacking is something USAF now trains for routinely, said Air Force Gen. Ralph E. Eberhart, NORAD's commander.

Eberhart, who also serves as chief of US Northern Command, told reporters that "several times every week" NORAD exercises scenarios involving hijacked airliners. These are missions requiring an aircraft to shoot down an airliner, or missions in which an air defense system must shoot down an airliner. As 9/11 showed, hijacked commercial aircraft can be turned into deadly weapons, and an aircraft may have to be brought down before it can be flown into a terrorist target.

Part of the reason for NORAD's exercises is to overcome possible "trigger hesitancy" among defenders who could face the troubling prospect of killing hundreds of innocent passengers to prevent an even larger loss of life, said Eberhart.

Absent a change in the perceived

threat, the current setup of alert bases and aircraft is now seen as the steady state for homeland air defense. The resources devoted to the mission "could go up higher," said Col. Ed Daniel, assistant operations director for 1st Air Force, if NORAD determines there is a changed threat. The assets available to Noble Eagle, however, will probably not go lower in the foreseeable future, he said.

Clary said that deciding what assets to dedicate to homeland defense is a complicated process. One of the questions the Defense Department has had to answer has been, "Should

we create new organizations or sequester forces to do just homeland security?" he noted.

From the Air Force's perspective, Clary said, the answer is: not necessarily.

USAF would like to support Northern Command's homeland defense missions in the same way it supports requirements coming from other regional commanders. "We'd still like to stay to our doctrine, which says, 'We'll supply forces when requested, as requested, within the AEF [Air and Space Expeditionary Force] construct,'" Clary said. If forces are required in the homeland, the Air Force would like to go to the AEF process to determine who is on call, and, said Clary, "those should be the people we go to first."

The Uncertain Threat

Eberhart said terrorism's uncertainty is his prime concern. Just as the 9/11 attacks were a surprise, Eberhart said, "I am most concerned about what I don't know, ... about what the terrorists are out there planning."

He explained that the military had not worked the 9/11 scenario, so planners now wonder, "What scenario aren't we practicing today that we might face?"

Clary said that since 9/11, "we as a nation have come a long way, but we have a long way to go." Success, however, is hard to measure.

There is, noted Daniel, "not much



After 9/11, most public attention focused on the CAPs over the Eastern US, but USAF elements on the West Coast, including this Oregon ANG F-15, also conducted patrols and today stand alert.

instant gratification” available when operating in a defensive posture. There have not been any successful attacks against targets within the United States since 9/11, but, as Daniel observed, “Have we negated the threat at this point? Who knows?”

Gen. John P. Jumper, Air Force Chief of Staff, believes that homeland air defense is now “set up in a fairly steady state, but we’re going to have to reconfigure ourselves ... to make it easier and to make sure we are in the right place.”

It is the job of 1st Air Force, NORAD, and NORTHCOM to determine what operational changes are needed. USAF will back up those decisions.

“What we’ve done to date has largely been in emergency mode,” Jumper said in an interview. One concern is making sure that the Air National Guard units that bear the lion’s share of the alert responsibilities have the personnel and equipment needed for the mission.

Officials feel strongly that the Air Guard is the right place to have the alert mission, because of the geographic dispersal of Guard units and



USAF photo by SSGT. Aaron D. Allmon II

While the brunt of CAP duty falls on Guard units, active duty forces, such as this 20th Fighter Wing F-16CJ from Shaw AFB, S.C., are being tasked to fill in during high-profile events and to meet specific threats.

their long ties to homeland security missions in general.

The Air Force has “pre-identified certain units that will pick up the alert mission,” Clary said, and the Air Force is “going to be sure they have the resources to get it done.”

NORAD has “developed a set of alert postures,” added Clary. The steady state calls for 16 continental US alert locations, one in Alaska, and one in Hawaii. Additionally, the Air Force flies “irregular” combat air patrols, so that enemies can never

No More 9/11s

One of the Air Force’s primary goals in homeland defense is to avoid the type of surprise it experienced on Sept. 11, 2001. After decades of looking outward from US borders, to detect aircraft or missiles heading toward the United States, the Defense Department found it was looking the wrong way when airliners were hijacked from inside the US.

Domestic commercial aircraft were considered “friendly by origin” at the time and were monitored by the Federal Aviation Administration, not DOD. Hijackings were generally considered a law enforcement issue, not one requiring a military response.

After nearly 3,000 were killed in New York City, at the Pentagon, and aboard the four hijacked airliners, these views changed.

Because the air defense mission was thought to have died with the Soviet Union, Air Force assets kept on alert had been cut repeatedly in the 1990s, leaving just seven bases and 14 fighters on alert in September 2001. These were spaced along the perimeter and left some large gaps in coverage.

The Air Force was utterly unprepared for 9/11, according to Congressional testimony earlier this year by the current and previous heads of 1st Air Force (ANG), headquartered at Tyndall AFB, Fla., and tasked with managing day-to-day air defense operations throughout the continental United States.

Maj. Gen. Larry K. Arnold (now retired) said he did not learn of authority to shoot down hijacked airliners until five minutes after the last one had crashed in the Pennsylvania countryside.

Meanwhile, the first military aircraft to arrive at the Penta-

gon, moments after American Airlines Flight 77 was flown into the building, were not air defense aircraft at all. The first two F-16s on the scene were rerouted while returning to nearby Andrews AFB, Md., from a training mission—unarmed and nearly out of fuel.

Maj. Billy Hutchison, the F-16 flight lead, was tasked with preventing any additional airliners from hitting targets in Washington, D.C. The problem was, he didn’t have live weapons, just training rounds. (Armed fighters out of Langley AFB, Va., were on their way.)

The Air Force now has five times as many people devoted to air defense as it did on 9/11 but must continue to push for the initiative, said Brig. Gen. David E. Clary, USAF’s homeland security director. Another 9/11-style attack is unlikely today because of changes made throughout government, he said, but the Air Force has to stay vigilant.

The Air Force cannot “wait for perfect information,” become complacent again, or “dwell on constraints or concerns,” a service homeland defense briefing states. To keep the Air Force on the offensive, the homeland security office, under the deputy chief of staff for air and space operations, was established in January 2002. That was less than four months after the terrorist attacks and before the Cabinet-level Department of Homeland Security or US Northern Command were officially established.

To prevent the types of oversights that occurred in the past, the new office serves as the focal point for Air Force homeland defense efforts and helps to shape NORTHCOM planning efforts and plan exercises, experiments, and wargames.



Officials are concerned about cruise missile threats. They say the F/A-22 offers the best prospect for tracking and stopping them. Until the Raptors are fielded in sufficient numbers, USAF may need to upgrade radars on more F-15Cs.

be certain exactly what the US defensive posture is. The random CAPs are typically flown by the ANG units already sitting on alert. They will fly “over the areas we are asked to by NORAD,” Clary explained.

To prevent the mission from becoming a total Air Guard burden, active duty forces will participate in surges in air patrols. With ANG handling the majority of alerts, tasked combat air patrols requiring “a known amount of commitment” will be met by the active force, Clary said. Examples would include providing security for a major event that would be an inviting target to terrorists or additional security over major cities because of a specific intelligence threat.

Room for Improvement

Once the air defense mission is stabilized to the point that it is no longer considered an emergency, there will still be improvements to be made. The Air Force needs to “look forward,” Jumper said.

That, he said, pertains to the “extremes of the threat.” For instance, Jumper pointed to “the very low altitudes and the emergence of cruise missiles.”

While most of the scenarios and threats that concern DOD are classified, top officials have spoken out about the need to do more to counter cruise missiles. Targets approaching the United States are harder to detect and track when they are small,

fast, low flying, and stealthy. Cruise missiles potentially combine all three characteristics.

“Cruise missiles concern me,” said Eberhart, because for most of the other threats against the homeland, “we have a way ahead.” For cruise missiles, however, the solution is less clear. DOD needs to “come to grips with what we are going to do to counter cruise missiles in the years ahead,” he said. The issue is of particular concern because technological advances may be making cruise missiles more accessible to would-be adversaries. (See “Cruise Control,” December 2002, p. 42.)

Clary concurred. “Our capabilities are not at a stage yet where we are comfortable with countering that threat,” he said, adding that the Air Force does have options it is pursuing. Clary noted that defending the US against cruise missiles is “a national issue” but that it also clearly falls within the Air Force’s traditional “lane” of defending against “bad things that fly through the air.”

At present, the Air Force’s best defense against cruise missiles may reside in Alaska, where a group of 18 F-15Cs at Elmendorf Air Force Base have been upgraded with advanced radars. These Eagles are now capable of tracking multiple targets and guiding air-to-air missiles against them.

While Air Combat Command has expressed interest in upgrading the

radars on all its F-15Cs, greater capability of this sort may have to wait for the fielding of the F/A-22 in large numbers.

Advocates note that the Raptor’s ability to supercruise—to fly faster than the speed of sound without use of fuel-guzzling afterburners—will allow fewer aircraft in a combat air patrol environment to protect more territory than is possible with the F-15.

Unmanned aerial vehicles may also prove useful in the homeland air defense mission. Certainly the ability to stay on station for extended periods could make UAVs valuable intelligence-surveillance-reconnaissance systems for border defense, yet defense analysts say there are unresolved issues for UAV in an air defense role.

“While UAVs cost less to field and operate than manned aircraft, concerns exist about operating these aircraft over populated areas or in airspace heavily used by civilian aircraft,” noted a report by the Congressional Research Service. CRS added that “using UAVs for air defense would require replacing the sensors on current UAVs” or fielding new systems, because existing UAVs do not have sensors suited to the homeland defense mission.

Clary said the Air Force looks at a broad range of possible threats and essentially has to make educated guesses about where to devote resources. The service has capabilities gaps, he acknowledged, and threat analysis and capabilities reviews will help guide improvements.

The homeland defense scenarios DOD chooses to evaluate will be “drivers in the capabilities we picked” to emphasize, Clary noted. The Air Force went to its homeland defense customers—the Office of the Secretary of Defense and NORTHCOM—to help quantify the concerns. One priority, Clary said, was to identify things a terrorist may be able to accomplish easily but which would create grave consequences.

Unfortunately, DOD has heard “lots and lots” of possible terrorist scenarios, he said. “When it comes to protecting the homeland, there’s not enough money, [there are] not enough people to counter or prevent every” scenario or risk, Clary noted. “This is a problem where you have to [balance] risk ... knowing that you can’t take risk to zero.” ■