

WHEN the Air National Guard's 174th Fighter Wing traded its F-16s for MQ-9 Reapers in 2009, training with the remotely piloted aircraft (RPAs) quickly became a major logistical headache.

To comply with FAA rules about where and when unmanned aircraft can fly, crews and maintainers had to take the RPAs apart and truck them from their home at Hancock Field, near Syracuse, N.Y., to Wheeler-Sack Army Airfield at Fort Drum, N.Y. There they assembled the aircraft, flew their training missions, then dismantled the RPAs and trucked everything back down Interstate 81 to their home base. This procedure was costly and limited training on RPAs at a time when the Air Force was short of funds.

This past summer, the Civil Air Patrol, the Air Force auxiliary, stepped in to help.

Volunteers in CAP-owned aircraft began flying RPA chase missions from Hancock, home of what is now the 174th Attack Wing (ATKW). Under a deal with the FAA—which requires RPAs to remain in

visual sight while operating in domestic US airspace—CAP pilots escort the MQ-9s as they fly to one of the nearby military operating areas.

It has quickly become a full-time mission for CAP, requiring weeklong deployments for the volunteer pilots and aircrews that rotate into the role, supporting as many as 30 hours per week of flying. The mission will continue, and even grow, until a new surveillance radar comes online in late 2017 that will minimize the need for the chase sorties.

Col. Michael R. Smith, 174th ATKW commander, said this approach will save taxpayers \$1 million while boosting training by about 50 percent.

The RPA chase mission is a case study in how CAP is moving into a more prominent partnership role as part of the Total Force.

CAP was created in December 1941 and has been the Air Force's auxiliary since May 1948, but awareness of its capabilities had been minimal until August 2015, when USAF updated its doctrine to include CAP's volunteers in its definition

of the Total Force. Service leaders are now directed to consider all Total Force elements, including Civil Air Patrol, "when determining the most effective and efficient ways to complete the mission."

The doctrine change "is raising the visibility within the Air Force itself about what the Civil Air Patrol is," said CAP Maj. Gen. Joseph R. Vazquez, the organization's national commander. "It has put us on the map as an Air Force asset. It's sort of been building up to this" in the year since the change was publicized, a "recognition that we do have the capability to do a lot more. That universe of potential customers out there within the Air Force has expanded."

The 1948 law establishing the Civil Air Patrol as the auxiliary of the then-new Air Force set out what's become its familiar three-pronged mission: aerospace education—both for its members and the general public—a cadet program to foster leadership in American youth, and emergency services, encompassing everything from search and rescue to disaster relief.

CAP JOINS THE TOTAL FORCE

By Jim Mathews



In existence for 75 years, and USAF's auxiliary for 68, CAP is a partner in major missions.

Photo by Lon Carlson, L-3 Communications

In recent years, the emergency services mission has expanded into counterdrug surveillance, fighter interceptor training, critical infrastructure surveillance, and non-combat support missions. Those include using CAP manned aircraft to emulate MQ-1 and MQ-9 RPAs during Green Flag exercises. Today, CAP members fly nearly 100,000 hours per year performing missions under the direction of Air Force, state, and local agencies. In Fiscal 2015, CAP aircrews flew 79,003 hours on Air Force-authorized missions alone, 47 percent more than a decade earlier.

"As a strategic partner, these unpaid professionals have boldly served our nation, saving the Air Force almost 40 times the cost of using military assets for each hour served," Air Force Secretary Deborah Lee James said in announcing the 2015 Total Force definition change.

Vazquez described another recent example of involving CAP in Active Duty operations. A wing commander at JB Langley-Eustis, Va., needed low-and-slow targets so F-22 Raptor pilots could practice intercepts. CAP supplied aircraft and crews, at considerable savings. Vazquez commented, "There is this auxiliary out there that they can go and use to meet their needs, rather than having to bid on some government contractor to go out and do the same thing." (See "Capital Defenders," December 2012, p. 28.)

Civil Air Patrol operates border-to-border and coast-to-coast within the continental US, plus Alaska, Hawaii, Puerto Rico, and the US Virgin Islands. Congress appropriates funds for acquisition and operation and maintenance. Years of steady procurement have produced a fleet of some 550 aircraft dispersed around the country. The Fiscal 2015 buy included 21 Cessna 172S aircraft, and Fiscal 2016 saw the purchase of 17 Cessna 182Ts and two Cessna 206s.

With 35 Cessna 206s, 194 Cessna 172s, and 343 Cessna 182s, CAP operates the most Cessna aircraft in the world. A large number are outfitted with a flat-panel glass cockpit, full autopilot, full suite of specialized search gear, satellite phone, and VHF-FM tactical radios. Sixteen Gippsland GA-8 eight-passenger transports round out the fleet, along with 49

A Civil Air Patrol Cessna T206H, modified by L-3 Communications—which installed a sensor similar to those found on Predator RPAs—supports a Green Flag mission.

gliders used for orientation flights and cadet training.

Army Col. Jayson A. Altieri, who chairs CAP's 11-member board of governors, said the need for CAP will only grow, due to years of increasing demands on the Air Force, even as defense budgets have declined.

Created by Congress in 2000 to oversee CAP, the board comprises members appointed by the Secretary of the Air Force and members appointed by CAP. They, in turn, stay engaged with USAF leadership and explore how CAP might be used in new or expanded roles. These range from operations, supporting cyber education, and preparedness to taking full advantage of CAP's cadet program.

TRIBLADE

Among the initiatives growing from the Total Force redesignation are several utilizing communication as a strategic asset. CAP can provide secure, mission-critical tactical command and control communications between aircraft, ground teams, and command posts performing search and rescue and disaster recovery operations. In recent years CAP has invested in a survivable, infrastructure-independent, and nationwide long-distance messaging system using high frequency (HF) radio.

In 2014, CAP created the National Traffic Net, known as Tribblade, with around-the-clock availability and next generation Automatic Link Establishment. It will soon be able to pass data through the HF network with online and offline encryption. Early in 2016, CAP reported that an average of 100 to 110 stations a day check in on one of its 15 regular weekly national HF nets. Air Forces Northern is considering leveraging this capability as a command and control resource, a crucial capability for passing messages over long distances in case satellite-based digital systems fail or are compromised.

Apart from this, CAP has a national objective of exploring possible new missions, including nonflying missions that play to its strengths and expand funding opportunities. The 2016-20 CAP Strategic Plan states, "We are performing missions today that were 'what if' questions just a few years ago" and charges all CAP members with looking for ways to establish "enduring partnerships with local and national authorities" that open the door "to missions not yet envisioned."

Collecting imagery to respond to disasters and recover from them is a role of increasing importance. CAP aircrews supplied more than 150,000 geo-tagged images of the devastated New Jersey coast to the Federal Emergency Management Agency after Hurricane Sandy in 2012. Emergency managers have started to see the value of gathering imagery in developing response plans.

All the service branches and the Department of Homeland Security are doing more dedicated planning for domestic US disasters and contingencies, looking for opportunities to partner with local, state, and other response agencies.

Paul D. Gloyd II is a retired Air Force officer who commanded the CAP-USAF organization with day-to-day administrative responsibility for CAP and is now a CAP headquarters civilian employee. He said the organization's new status as a fully recognized part of the Total Force has given it a seat at the table as these plans take shape.

"It's well-publicized that our military has faced, in recent years, unprecedented budget and manning cuts," said Gloyd. "What we're beginning to see is CAP's increased presence in Air Force strategic-level planning activities. For example, noncombat activities historically conducted with organic Air Force personnel and assets are now being shifted to CAP when prudent to do so."

The cooperation is becoming broader and deeper and now extends beyond just picking up mission sorties.

"People often think of a mission as an activity accomplished in an aircraft or perhaps searching for a lost soul on the ground," said Gloyd. "However, missions span the scale of opportunities and sometimes the mission is to shape the future." For example, CAP's aerospace education efforts to inspire youth in science, technology, engineering, and mathematics "is earning national acclaim." The Air Force STEM Outreach Coordination Office provided funds "to continue our outreach to tens of thousands of school-age children. This funding is expected to continue, as will CAP's growing catalog of STEM subjects, the newest of which focuses on cyber."

Another pressing issue is how to address USAF's pilot shortage. CAP leaders recently participated in Air Force discus-



CAP photo

CAP photo



sions to address and develop options to reverse the trend, Gloyd said.

"By most accounts, being incorporated into strategic planning processes is somewhat of a first for CAP and very much welcomed by us and the Air Force," he said.

One message that emerged from these conversations with Lt. Gen. Darryl L. Roberson, commander of Air Education and Training Command, and other senior leaders is that USAF wants to do a better job of enticing its own AFROTC cadets to become Air Force pilots, Vazquez said.

"That means getting them up in the air as often as they can, which means funding [CAP's] cadet-orientation flight program," he explained. The pilot shortage has made these efforts a priority, and CAP is ready



Top: A CAP flight monitors an MQ-9 Reaper. CAP has been chasing Reapers in the Class C airspace around Hancock Field, N.Y., to ensure safety of flight for the RPA. **Left:** CAP Lt. Col. John Henderson (r) briefs CAP Maj. Jim Schmidt (l) and CAP Maj. Jeff Koubek before an aerial photo mission. **Right:** A CAP aircraft orbits a JLENS aerostat, a vehicle designed to provide a battlefield commander with early warning of airborne threats.

to execute quickly. "The airplanes are in place, the program is in place; all they have to do is turn the dollars on. They don't have to create a program from scratch or go get contractors. It's very inexpensive for us to do that versus a contractor."

As of Aug. 9, 2016, CAP pilots had conducted 126.3 hours of orientation flying in Fiscal 2016 for AFROTC cadets, a 213 percent gain over Fiscal 2015.

Nevertheless, more is needed to make a dent in the pilot shortage.

About 9,600 pilots are on the CAP rolls, but only 2,800 are active pilots, and the number of fully qualified mission pilots hovers around 1,700. That's enough to support existing missions, but more are always needed. All are unpaid volunteers who give up nights, weekends, holidays, or vacations to train in their specialties. Some 70 percent of CAP's annual mission hours are devoted to mission support, with another 35 percent spent on training.

Like the Air Force, commercial airlines, and even general and sport aviation, CAP could use more pilots.

That's one of the challenges that has come along with the Total Force designation. People and processes are being adjusted to meet growing demand for support, and recruiting and retention become more important as the number of missions increase.

"We're a very mature program. We've been around a long time," said Vazquez, "and we've let our regulations grow to the point where sometimes we can turn people off trying to come in the front door."

CAP is in the midst of a nose-to-tail revamp of every regulation, instruction, and pamphlet. This scrutiny is aimed at stripping down requirements and administrative burdens to a minimum while aligning more closely with the Air Force. It's more than a paper chase: Exit surveys of members who leave CAP show that a prominent factor in their decision is the perception that they're not needed. This is fueled in part by procedures that make it difficult to recruit members in particular specialties—whether pilots, communicators, system operators, or administrators.

"We've got to figure out a way to give credit for people who have those experiences and bring them straight into the program, where they can start contributing without too much overhead," Vazquez said. "The big thing is making it easy for professional pilots, or professionals of any stripe, to come into Civil Air Patrol" without roadblocks being put in their way "inadvertently." ♦

Jim Mathews volunteers as a CAP major commanding a Virginia squadron and serving as rated aircrew. He became CEO of a national transportation nonprofit organization after 26 years as a reporter, editor, and executive at Aviation Week. This is his first article for Air Force Magazine.