

The Ground Observer

Some 800,000 volunteers at 16,000 observation posts scanned the sky for hostile aircraft.

Before electronic sensors guarded the approaches to North America, before satellite warning systems peered down from space, before air defense aircraft carried identification equipment, the US had the Ground Observer Corps.

In World War II, and then again during the early years of the Cold War, the nation's air warning system lay largely in the hands of the corps, a US military adjunct composed almost entirely of volunteers, intently studying wall charts and model airplanes to memorize the characteristics of "ours" and "theirs."

They were teenagers and housewives, manning search towers and bare rooftops, equipped only with binoculars. Through the war years and most of the 1950s, GOC members spotted and plotted the movements of potentially hostile aircraft. These almost always turned out to be friendly, but they might well have been intruders bent on mounting a surprise attack.

The observers worked from any site that offered a clear and unobstructed view of the sky.

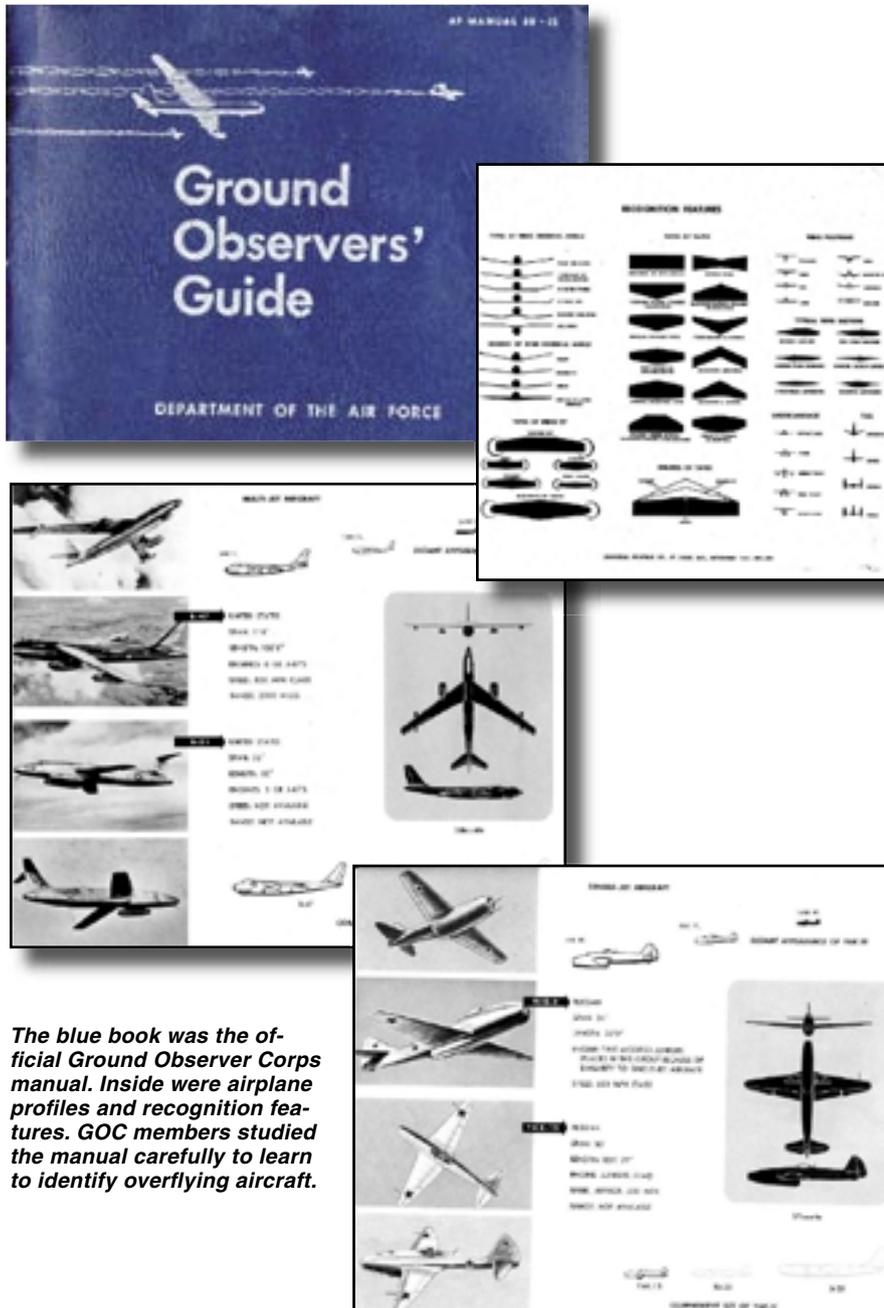
In Hinsdale, Ill., it was atop the Community House. Code-named Coco-Metro-Zero-Four-Roger, the observation post was little more than an unroofed plywood pen about six feet square, unfurnished except for a telephone. When an observer saw an airplane, he logged it onto a clipboard and reported it to the Museum of Science and Industry in Chicago, the region's Air Force-operated filter center.

In Otsego County, N.Y., the volunteers operated from a shack set up in a field near the bus garage. It had a table, chair, and telephone hotline to the control facility in Syracuse.

In Scotts Valley, Calif., Papa-Hotel-Zero-Zero-Black was on a knoll near the local community center. Volunteers reported sightings to Hamilton Air Force Base.

And in Akron, Ohio, 15-year-old Frank Sutter pulled the Sunday morning shift, manning what looked like a greenhouse on the roof of the YMCA building.

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The blue book was the official Ground Observer Corps manual. Inside were airplane profiles and recognition features. GOC members studied the manual carefully to learn to identify overflying aircraft.

Corps

By Bruce D. Callander

“We had a set of binoculars and a small space heater, because it did get cold in the wintertime,” recalled Sutter, who later was a career Air Force officer. “We also had a telephone line to the center in Canton, Ohio, where they plotted the aircraft by directions and numbers.”

Over the years of the Cold War, more than 800,000 volunteers stood alternating shifts at 16,000 observation posts and 73 filter centers.

Watching for What?

Looking back, the idea of a bomber hitting the US from Europe or Asia in the 1950s seems implausible, but this was a time when it seemed prudent to expect the worst.

It was the era when the Soviets acquired nuclear weapons. Like us, the Soviets had captured German scientists and had them working on intercontinental delivery systems. And who knew what kind of long-range aircraft the USSR had in operation?

There was also Red China, about which we knew even less. By the end of June 1950, we were at war in Korea, and, not long after that, Mao Zedong’s China plunged into the war on the side of North Korea.

The US government and public took the threat seriously. Many built bomb shelters. Others stocked up on canned goods and checked out which local buildings were designated as public shelters. School children practiced the “duck and cover” technique and were warned to stay away from windows during an attack.

Sutter said, “When you think back about it, you think that the possibility of the Russians sending anything over at that time period was pretty slim. But the GOC was a low-cost alternative to radar. We didn’t yet have the electronic sophistication that was necessary. We didn’t have a DEW Line or the Pinetree Line, so it was a stop-gap measure, at fairly low cost, until those facilities were up and running.”

Human sky watchers were not only

inexpensive, they had a long history of dedicated service. The observation corps had its roots in World War I.

The first efforts at training ground observers to recognize and report airplanes by type had the practical purpose of reducing losses to friendly fire. Pursuit pilots and anti-aircraft gunners needed not only to see the aircraft but to be able to tell friend from foe.

Before long, Britain had another reason to keep a sharp eye on the skies. In 1915, Germany began to raid England, first with Zeppelins and later by fixed wing bombers.

Britain’s Lesson

The British learned a major lesson from the air raids. German bombers had done what the Spanish Armada had failed to do. The English Channel no longer assured safety.

In the mid-1920s, the British began to refine the warning system. At first, the observer corps was run by county constables and volunteers. In 1941, the organization was renamed the Royal Observer Corps (ROC) and was under control of the Royal Air Force.



In the Second World War, the British air defense system was the model for the US. Large cities and small villages appointed air-raid wardens, trained volunteer ambulance drivers, put up blackout curtains, and recruited sky watchers for the new American version of the ROC, the Ground Observer Corps.

Observer posts were manned by volunteers, while the filter centers were run by the Army Air Forces and staffed by both military members and civilian volunteers. The Women’s Army Auxiliary Corps (later the Women’s Army Corps) provided many of the military plotters. Combined, the observation posts and filter centers were known as the Aircraft Warning Service, a loose alliance of the local civil defense authorities and the military.

It was not enough to spot aircraft, of



Pictured is a groundbreaking ceremony for a GOC observation post in New York state. GOC posts were constructed on top of existing buildings or on hilltops—any place with a clear, unobstructed view of the sky.



In this 1957 photo taken in Worcester, Vt., an unidentified Vermont state trooper and TSgt. Arthur Greenleaf of the Syracuse (N.Y.) GOC demonstrate the use of a GOC walkie-talkie to (l-r) Ed Maxim, Glendine van Kleef, and Harold Martin.

course, if you didn't know the difference between a fighter and a bomber and, more important, between an AAF airplane and an enemy one. For aircrews, anti-aircraft gunners, and GOC observers, aircraft recognition training was essential.

Initially, training emphasized the WEFT system of memorizing the shapes of the wings, engine, fuselage, and tail. Later, the service decided that learning an airplane's overall configuration was more effective.

The AAF produced all kinds of recognition training aids from silhouette posters to flash cards, photo slides, and movies. (See "Pieces of History: Watching the Skies," April 1997, p. 88.) One of the most effective was the scale model. Early in the war, the Comet Model Airplane & Supply Co. distributed plans to schools, and students began turning out facsimiles of Allied and Axis airplanes. As recognition programs grew in both the services and the observer corps, commercial manufacturers began to supply the models.

If the civil defense effort had a certain feeling of make-believe on the North American continent, one place where there was no question that enemy airplanes were a real threat was Hawaii. After the attack on Pearl Harbor, the Army beefed up its defenses there and broadened a radar network that had been little more than experimental on Dec. 7, 1941.

Because the war was draining the islands of manpower, the Army recruited local women and the wives of servicemen to help run a secret plotting room. It was

atop a concrete warehouse, where reports from observers and radar operators were traced on a large horizontal map.

Known as the Women's Air Raid Defense (WARD), the workers were appointed to the civil service, paid \$120 per month, and furnished quarters and officers' mess privileges at Ft. Shafter. They wore pale blue dress and fatigue uniforms similar to those of Red Cross volunteers and were issued World War I helmets and gas masks. They also wore armbands showing they were noncombatants in the active war zone.

The program was expanded to other islands, and, during the Battle of Midway, WARD observers helped vector crippled US bombers into blacked-out airfields. Other times, they spotted unidentified aircraft, and fighters were scrambled to do battle with them.

The WARDs served until a few weeks after V-J Day, when the unit was disbanded. The women were offered equivalent civil service jobs with the War Department in the islands.

The Drawdown

Stateside units began to phase out

their observers earlier in the war. The 1944 edition of the *Guide to the Army Air Forces* noted that since Oct. 4, 1943, both GOC and filter center operations had been put on alert status to free the pool of military and civilian manpower for other war work. Both were activated occasionally for tests and training, but they no longer operated on a 24-hour basis.

As the operations were scaled back, Secretary of War Henry L. Stimson wrote to the volunteers thanking them for their service. "During your period of duty with the Aircraft Warning Service, you have learned many facts which, if made public, might be of service to the enemy," he wrote, underscoring the seriousness of the effort. "The War Department looks to you to maintain silence with respect to these matters of national security."

In the end, there was little enemy activity directed against the continental US. The Japanese did launch about 9,000 bomb-carrying balloons against the US, but fewer than 300 reached North America. They did little damage.

Barely five years after World War II ended, however, there was a new threat from the USSR. The US began to develop an electronic warning network, but it would take time.

In February 1950, Continental Air Command's Lt. Gen. Ennis C. Whitehead proposed the formation of a revised Ground Observer Corps with 160,000 civilian volunteers. They were to operate 8,000 observation posts spotted in gaps between the proposed radar network sites. By 1951, some 210,000 volunteers were recruited and 26 filter centers were operating. (See "The Rise of Air Defense," December 1999, p. 73.)

The setup was much like that of the wartime organization. Volunteers manned the observation posts and worked along with Air Force members in the filter centers. Sutter recalls that the training was minimal. "My mother was the coordinator for that part of Ohio, so I got the training pretty much

The Northern Observers

From 1938 through the end of World War II, the Canadian Air Detection Corps reported sightings of both German aircraft and surfaced German submarines. Although the group phased out at the end of the war, a new Ground Observer Corps (GOBC) was formed by the Royal Canadian Air Force.

Beginning with a small group of officers, the GOBC grew to 50,000 volunteers with observation posts manned around the clock across Canada. They, too, built observation towers on their own initiative and expense and equipped them with everything from listening devices to binoculars.

In 1955, two years before NORAD was founded, Strategic Air Command sent an "enemy" force over Canada to test the defenses. The first warning by the GOBC came some three hours before other, more sophisticated, sources reported the "attack."

at home,” he said. “We also had aircraft recognition charts to show the types of aircraft and that sort of thing.”

For estimating aircraft altitude, the Air Force developed a gauge, a transparent piece of plastic with circles of various sizes. The observer was supposed to move it until the airplane seemed to fill one of the circles and read the altitude from that. Sutter said he was given such a device but found it difficult to use.

As with the wartime organization, the Cold War GOC tied local civil defense agencies together with the military ser-

Homeland Defense, 1950s Style

Members of the Ground Observer Corps were nothing if not earnest about their responsibilities. An official Army Air Forces training manual for the Ground Observer Corps noted, “The duties of the ground observer are often inconvenient, sometimes physically uncomfortable, [and] almost never glamorous.”

It went on to say, “No man or woman should volunteer for service as a ground observer looking for an easy job or with the intention of making anything other than an all-out effort to perform his or her duties efficiently and on schedule. The Ground Observer Corps is a part of the Army Air Forces, and its personnel are expected to govern [themselves] accordingly.”

The manual also made the point that the volunteer’s function “is an essential part of active air defense—the destruction of enemy planes and their crews.” In this sense, the AAF said, the warning service was in partnership with the nation’s fighter interceptors, anti-aircraft artillery, searchlights, and barrage balloons.

These active defense measures were in contrast to the passive measures such as dispersion of aircraft, camouflage, blackouts, and other routine precautions.



In the early days, GOC used horizontal plotting boards, such as the one shown here at the Syracuse filter center. Models were moved manually around the board to indicate the position of an aircraft.

vice. In the early 1950s, new rules gave the operational responsibility of civil defense to state and local governments, with the federal government helping where appropriate. This focused the Air Force’s attention more specifically on air defense, although it still relied on civil defense organizations to help recruit volunteers.

Additional Mission

In the spring of 1953, the GOC took on the added duty of helping intelligence forces. The Air Force had developed intelligence service squadrons to go to the sites of enemy aircraft crashes, interrogate enemy crews, and examine aircraft wreckage.

The trick was to find where an airplane crashed or where a parachutist landed. The unit asked GOC observers to keep eye out and report such things as airplane type, distance and direction, the time of the crash, the number of parachutists seen, and the condition of the wrecked airplane.

GOCs were warned not to try to

capture the survivors or approach the wreckage. The filter centers were to handle such reports the way it did routine trackings but to pass the information to one of the Air Force intelligence squadrons.

By the late 1950s, the need for volunteer sky watchers was diminishing. In July 1957, the main Distant Early Warning (DEW) Line was declared technically ready. (See “A Line in the Ice,” February 2004, p. 64.) That September, the North American Aerospace Defense Command (NORAD) was established.

By then, both the US and the Soviets had ICBMs capable of delivering atomic warheads to their adversaries’ homelands. Volunteer sky watchers, trained to spot aircraft when there still was time to intercept them, would be of little use against such weapons.

In January 1958, the Ground Observer Corps was reduced from 24-hour to ready-reserve status. A year later, it was inactivated. That same month, the first Semiautomatic Ground Environment (SAGE) division became operational in Syracuse.

Fifty years later, the wings and badges of the GOC observers and the airplane models used to train them in recognition are collector’s items enshrined in museums or sold on eBay. Many of the teenagers who helped man the ramshackle observation posts are drawing Social Security. Only a few of the towers from which they phoned their reports have survived as historic monuments.

Whether keeping watch on the skies helped to head off a fatal attack on the US is debatable. There is no way to tell how things would have been different if the watchers and plotters had not been there.

Like the GOC members of World War II, however, those who served in the Cold War leave another legacy. For a brief period, thousands responded to the perceived threat and served alongside the uniformed services in defense of the country.

“The Cold War was starting to crank up,” noted Sutter. The Ground Observer Corps “had a feel-good element to it, where people felt they were doing something. Then, when word got out that there were actually people up there watching, it had a warm fuzzy feeling for other people who weren’t participating but knew that it was going on.”

The US has not experienced anything quite like that kind of nationwide public participation with the military since the GOC disbanded. ■

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