ELECTRONIC SECURITY COMMAND

ESC

ESC: the past

Communications eavesdropping by both sides during World War II caused Air Force leaders to recognize a need for an effective communications security system. In May 1948 the first organizational step in this direction was taken when the Air Force Security Group was informally established. When officially formed July 1, 1948, the unit consisted of eleven officers and some enlisted clerical personnel on loan from the Army Security Agency.

As the need to move more fully into communications security grew, so did the Security Group. Then in recognition of the expanded role of communications security, the Air Force Security Service was established at Arlington

Hall Station, Va., in October 1948. From this time on, the new command assumed the responsibility of providing communications security for the relatively new Air Force.

Initially, Security Service was authorized 34 officers, six airmen and 116 civilians. The command received its first subordinate units in February 1949 when three mobile radio squadrons and one radio security detachment were transferred from the Army. One of the radio squadrons was located in Japan, another in Germany, and the third was at Arlington Hall Station and moved to Brooks AFB, Texas, in late February 1949. The radio security detachment was located at Fort Slocum, N.Y.

In April 1949, the first echelon of headquarters

Security Service and the Fort Slocum detachment moved to Brooks AFB, Texas. USAF Security Service moved across town to its present location at Kelly AFB in August 1953. At the time of its final move, the command had grown to several thousand assigned personnel.

During the Vietnam Conflict the command was assigned the permanent responsibility for evaluating all Air Force electronic warfare activities. As the war in Vietnam drew to an end, the command assumed responsibility in a new arena. Increased emphasis was being placed on the effects of electronic warfare, and the command was assigned a major role in developing strategies and new technology as well as supporting testing and training in this area.

As a result of its broader electronic warfare responsibilities, Security Service was redesignated the Electronic Security Command on August 1, 1979. Today, the Electronic Security Command has added to its other responsibilities a major role in helping to develop ways to deceive, jam, confuse, and destroy opposing command, control and communications systems. At the same time ESC's defensive role is to assure that the enemy cannot do this to friendly forces.

ESC traces its history back to 1948.

ESC: the present

Headquarters ESC has an all-source intelligence function and provides electronic combat (EC) support; operations security (OPSEC); communications and computer systems security; and communications support to Air Force units and unified and specified commands. This support is not only provided for exercises, but also for contingencies and real-world events.

ESC units provide rapid radio relay; command, control, and communications countermeasures (C^3CM) support; and communications and computer systems security support to U.S. and allied forces worldwide.

The command plays an important role in developing Air Force electronic warfare (EW) and C^3CM capabilities, techniques and systems. By providing C^3CM training to operational support elements during exercises, the command helps prepare the Air Force team for combat operations in a hostile electromagnetic environment. To help the tactical commander satisfy the C^3CM requirements, headquarters ESC develops, maintains, updates and disseminates the C^3CM support data base and an all-source intelligence data base. The command also advises combat commanders

of their EC options.

ESC is made up of two centers, four divisions, two wings, ten groups, 28 squadrons, and many detachments and operating locations. Three of the divisions and three of the groups also serve as major command liaisons. Additional support is provided by mobile units and Air Force reservists.

Closely supporting efforts of ESC field units are the Air Force Electronic Warfare Center (AFEWC) and the Air Force Cryptologic Support Center (AFCSC). Although subordinate to the command, both are primary managers of Air Force-wide programs. The AFEWC is a primary source of EW and C^3CM analysis. Its members provide senior battle commanders with analytical reports on major exercises on EW systems' effectiveness. They assist strategic and tactical commanders in making combat decisions and perform analysis to support planning, developing, testing and using EW equipment.

The AFCSC is responsible for the Air Force's Communications and Computer Systems Security Program, composed of communications security, emanations security (TEMPEST) and computer

security. AFCSC also provides analytical and engineering services in support of these programs to Air Force activities worldwide. The center also manages and accounts for cryptographic devices, codes, call signs, and documents that protect Air Force communications and computer systems; performs depot-level maintenance and life-cycle support for cryptologic equipment and systems; and develops and distributes multimedia educational materials to all Air Force organizations.

Another program is the operations security mission. Early in 1982, Headquarters Air Force assigned ESC the responsibility for supporting operations security programs of all major commands and strengthening the operations security education program for the entire Air Force.

ESC's mobile units deploy to support major exercises such as Team Spirit, Bright Star, Cold Fire, Red Flag, Central Enterprise, Brim Frost, Green Flag and many others. During these exercises, ESC provides a hostile electronic warfare environment similar to what U.S. forces would encounter in actual combat. ESC's activities include electronic disrup-

tion techniques through the use of mobile and self-contained jamming and deception vans.

In addition, the command provides support to the multi-service Joint Electronic Warfare Center (JEWC), which is collocated with Headquarters ESC. ESC's commander is also the JEWC's director.
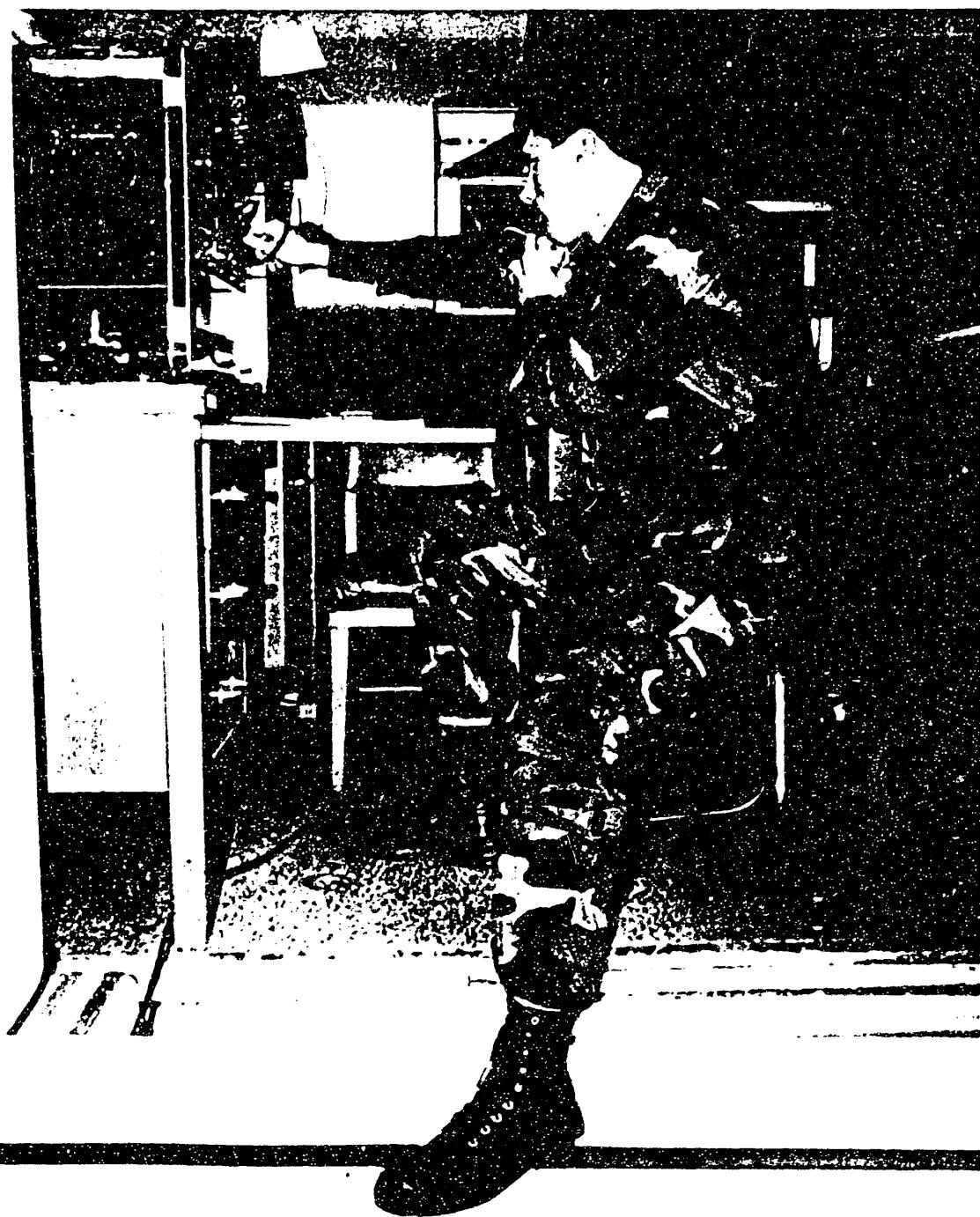
ESC people -- masters of t

More than 13,000 people are assigned to Electronic Security Command. Enlisted people make up 90 percent of the command, which has the highest percentage of women specialists in the Air Force.

e electronic battlefield

ESC supports others

One major aspect of ESC's mission is providing support to other Air Force commands and sister services.

ESC officers provide support to U.S. Air Force tactical and strategic commanders. These officers are stationed at the headquarters of Strategic Air Command, Tactical Air Command, Space Command, United States Air Forces in Europe, Alaskan Air Command, Military Airlift Command and Pacific Air Forces. They are integrated into the commands they support and assist in daily operations and planning.

The command is an important part of the U.S. system that provides electronic security for the U.S. and allied military operations worldwide. Combat elements depend heavily on ESC support during exercises and real world operations.

During an average year, ESC will provide support for more than 100 exercises around the world. From Alaska to Europe, the Pacific to the Middle East, the command is dedicated to helping U.S. and allied militaries do their job better. ESC experts support exercises such as Red Flag, Green Flag, Global Shield, Bright Star, Cope

In an average year, ESC supports more than 100 exercises around the world.

Thunder, Bold Eagle, Display Determination and Gallant Knight.

Each day an average of 165 people support exercises for other commands. In a year's time, between 60,000 and 70,000 work-days are devoted to assisting others train their people. When you consider ESC's many ongoing peacetime missions -- virtually identical to their wartime missions, and command staffing of about 13,000 people -- this support becomes a major commitment of command resources.

The Air Force currently places a high priority on training aircrews to fly and fight successfully in hostile electronic environments. To provide this training, ESC people deploy around the world to perform the role of "bad guy" in exercises sponsored by many military organizations.

Acting as "bad guys," ESC people can jam transmissions or use imitative communications deception to confuse pilots and block communications. For aircrews who have never experienced these disruptions and false trans-

missions, the impact can be significant. Many skilled pilots have been "shot down" or sent off in the wrong direction during these exercises. Hopefully, the experience will make them less susceptible to these problems if faced with them during actual combat. Other ESC units protect secure communications to prevent the plans of friendly forces from being stolen or disrupted by enemy forces. Special voice and data links are established which provide communications reliability and security.

ESC personnel may also monitor radio and telephone communications or errant electronic emissions to determine whether information of value is being exposed. ESC's eavesdroppers are often able to tell exercise commander's much more about their plans than anyone is supposed to know. With the knowledge of where and how this information was obtained, commanders can show their people the importance of proper communications and computer systems security.
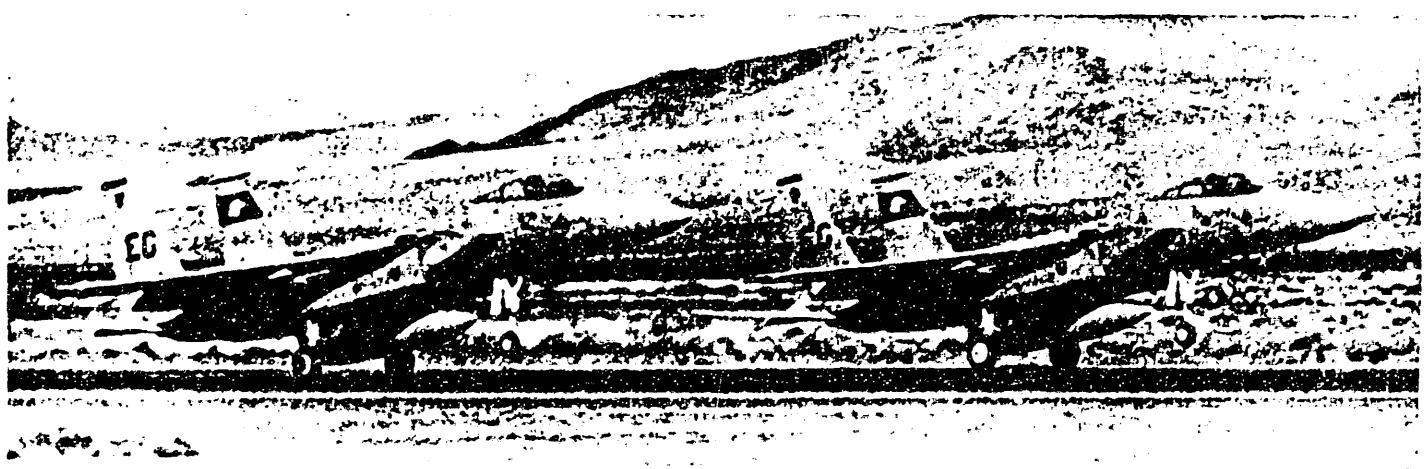
ESC people participate in
many exercises annually
including Green Flag (above)
and Brim Frost (right).
Electronic disruption tech-
niques are used in these
exercises to help train
aircrews.

ESC: the future

Electronic Security Command enhanced its long-range planning with the formation of a plans and requirements division as part of the plans deputate in November 1983. However, it was the publication of the ESC "Master Plan" in January 1985 that provided an outline for the program's development.

The master plan ties ESC planning into Air Force, DOD agencies, and supported commands' programs, plans, goals and objectives. It provides direction to all planning. The master plan will guide ESC's advancement into the 21st century.

With the master plan as a baseline, ESC planners are constantly looking eight and 15 years into the future.

The short-range objectives draw conclusions about what sorts of equipment, how many people and what types of new technology we will need to accomplish our mission eight years from now. The fifteen-year outlook deals more with abstractions and projected technologies. It realizes we have a shrinking manpower pool and explores methods of doing more with less. This portion of the plan must be very flexible.

Identifying trends is an important factor in maintaining flexibility. This is why there is an ongoing program to recognize movements or changes in factors affecting ESC, including technology, economics, politics, society and operational doctrines.

One result of the ESC master plan is an ever-expanding series of strategy papers, covering everything from specific systems to innovation. Officials expect the biggest payoff in the field of innovation.

ESC is fostering a climate of innovative thinking -- making it easier for people to be innovative. ESC's Innovation Center and Long Range Innovation Team serve as a clearing house of ideas and suggestions from the field. The team is also responsible for evaluating ESC's innovation suggestion program, which is aimed at minimizing bureaucracy and allowing ideas to be put to work without lengthy justification or fear of failure.

As technology and rushing advancement into the era of space continue to challenge the world, ESC will be in a position to respond in a timely fashion -- thanks to the framework for change provided by long-range planning.