

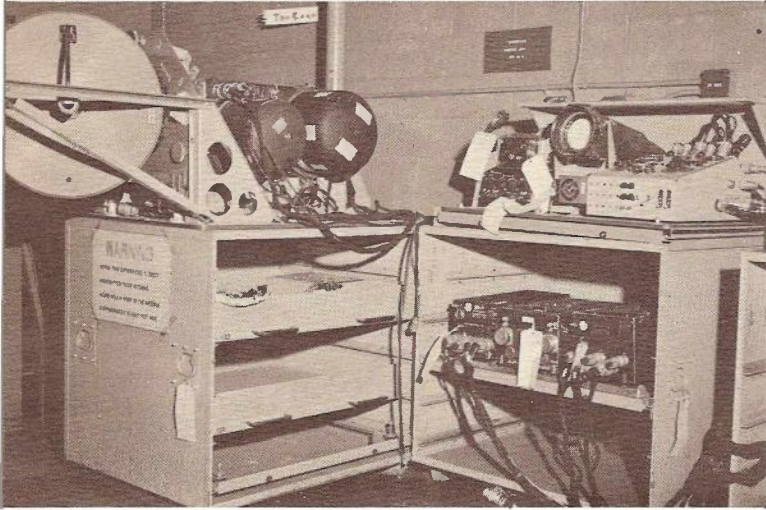
COMBAT ALERT CENTER

The combat alert center, commonly referred to as the CAC, is the nerve center of this Fighter Interceptor Squadron. Manned 24 hours a day, seven days a week, it also serves during states of increased readiness as the Squadron Common Post. This center has both wire and radio communications with flight line, alert hangar, operations, maintenance, airborne interceptors and higher headquarters. Through this center is passed the command to launch interceptors, which can be accomplished within five minutes after receipt of the "scramble" order from Air Defense Command sector Headquarters at Newburgh, NY. The Newburgh center assumes control of the interceptor after launching and computes automatically certain data which is transmitted to the airborne aircraft to aid in seeking out the target.



RADAR

The F-86L is equipped with a weapons control system, designated the E-4 system. Its purpose is to guide interceptor aircraft (through visual display on the pilot's scope) to the target regardless of weather, day or night. The system locates the target and computes the headings for the aircraft to fly an intercept course. At the precise moment that the F-86L is in range and on such a heading that launching of rockets will score on target, this system fires the 2.75 inch rockets in a salvo pre-selected by the pilot. The E-4 has 27 major components, with a total of over 3000 tubes and more than 10,000 separate electronic parts. All this equipment, plus direction from the ground control center, is necessary to compute the complex fire control problem.



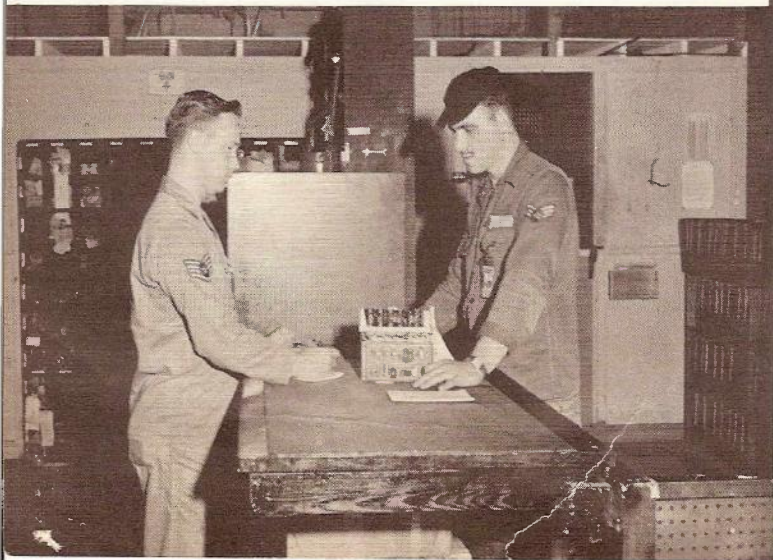
FLIGHT LINE

Each aircraft of the 465th Fighter-Interceptor Squadron is assigned to a crew chief. It is the duty of this mechanic to service and inspect his aircraft prior to and after each flight. Maintenance accomplished by the crew chief consists of changing tires, wheels and brake assembly. It is the responsibility of the crew chief to reservice his aircraft after each flight. He accomplishes refueling, adds oil, hydraulic fluid and oxygen and assists with loading of the rockets. During air defense exercises and other states of increased readiness, the crew chief is responsible for complete reservice of his aircraft within a 15-minute period. When major maintenance is required, the crew chief pulls his ship into the maintenance hangar and assists with after-burner repair, engine replacement or other work as may be necessary to return the aircraft to a ready-to-fly condition.



TECH SUPPLY

To maintain the F-86L all-weather fighter-interceptor, the Tech Supply Section must stock and issue thousands of line items. The airman shown here is drawing an electronic chaise, which is an integral component of the radar fire control system. It is the responsibility of Tech Supply to procure, store and issue every bit and piece needed to maintain the assigned aircraft in a combat alert status. This section functions in a manner quite similar to the parts department at a large automobile service agency. In addition to airplane parts, this section must supply support equipment such as cranes, auxiliary power units, hand tools and component parts.



PERSONAL EQUIPMENT

Pilots of the interceptor aircraft require several items of survival equipment. Most significant is the helmet and its attached oxygen mask, sun visor and communications set. The pilot is also equipped with special zipper closed boots, heavy winter clothing, parachutes and survival gear. The requirement to fly over open water establishes the need for flotation equipment (called a Mae West), water dye and special winter clothing. Should the pilot be forced to bailout from altitude, impact of his suddenly-opened chute would force low-quarter shoes from his feet. Hence he wears boots which are closed with a slide fastener for easy opening should his feet be injured on landing. He also carries a knife, matches, hand gun and first aid kit.

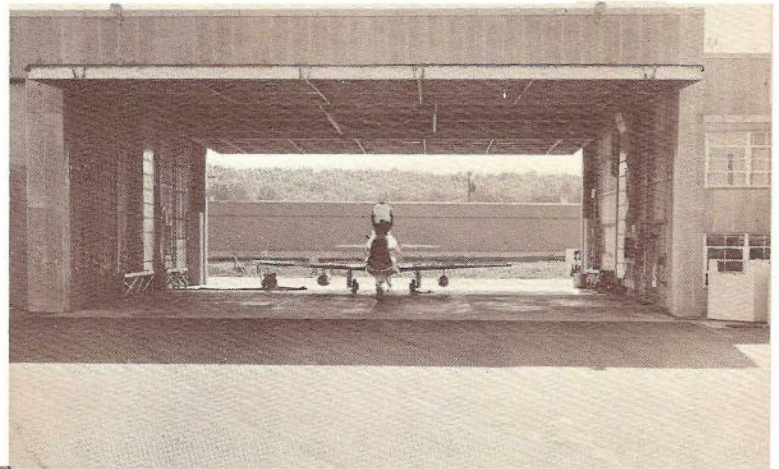


PERIODIC MAINTENANCE

Just as an automobile periodically requires oil change, spark plug replacement, transmission adjustment, etc., an airplane is also serviced periodically. Each F-86L "Sabre Jet" is completely disassembled for comprehensive inspection after completion of 100 hours of flying time, or about once each three months at the rate these aircraft are flown. Frequently, inspection of the engine results in its replacement. The hydraulic system (which operates the landing gear, flight controls, brake and rocket launcher) is carefully inspected and repaired as necessary. The entire electric system, consisting of fuel control system, storage batteries, numerous inverters, generator and miles of wire, is inspected. All removable panels are taken off to afford inspection of and repairs to control linkage. This requires removal of the aft section.

ALERT HANGAR

When exercises and other states of increased readiness require that air crews and aircraft be airborne on short notice, the interceptor aircraft are hangared in this building. Pilots and necessary ground support personnel are quartered here. This building contains sleeping accommodations, meal preparation facilities, entertainment and recreation facilities and a direct link to the combat alert center. Upon sounding of the alarm these hangar doors open, the aircraft start and they are airborne within five minutes.



ROCKETS

The 2.75 inch "Mighty Mouse" rocket is the armament carried by the F-86L. A quantity equal to 24 rounds from a 3-inch cannon constitutes a full load. The rocket has an over-all length of 48 inches and weighs approximately 18.5 pounds. It is equipped with fins that fold within the 2.75 inch diameter of the rocket so that it may be fired from tubular launchers. The propellant is an internal-burning grain ballistite. Its operational characteristics are essentially unaffected by changes in temperature. The warhead is a steel case loaded with either a high explosive charge or an inert load of plaster used for practice. This rocket may be employed against ground or air targets with equal effectiveness.