



# FACT SHEET

## U.S. Air Force Fact Sheet

### RC-135U COMBAT SENT

#### Mission

The RC-135U Combat Sent provides strategic electronic reconnaissance information to the president, secretary of defense, Department of Defense leaders, and theater commanders. Locating and identifying foreign military land, naval and airborne radar signals, the Combat Sent collects and minutely examines each system, providing strategic analysis for warfighters. Collected data is also stored for further analysis by the joint warfighting and intelligence communities. The Combat Sent deploys worldwide and is employed in peacetime and contingency operations.



#### Features

All RC-135U aircraft are equipped with an aerial refueling system, giving it an unlimited flying range. Communication equipment includes high frequency, very high frequency, and ultra high frequency radios. The navigation equipment incorporates ground navigation radar, a solid state Doppler system, and an inertial navigation system that merges celestial observations and Global Positioning System data. Although the flight crew stations are similarly configured, the reconnaissance equipment is slightly unique within each airframe.

The aircraft are identified by their distinctive antennae arrays on the "chin" and wing tips, large cheek fairings, and extended tail.

Crew composition includes two pilots, two navigators, two airborne systems engineers, and a minimum of 10 electronic warfare officers, or "Ravens," and six or more electronic, technical, and area specialists.

#### Background

There are only two Combat Sent aircraft in the Air Force inventory and both are assigned to the 55th Wing at Offutt AFB, Neb. The RC-135U aircraft are manned by Air Combat Command crews from the 45th Reconnaissance Squadron and the 97th Intelligence Squadron (of the Air Force Intelligence, Surveillance and Reconnaissance Agency). The Combat Sent is composed of a wide variety of commercial off-the-shelf and proprietary hardware and software. Its current configuration allows for both manual and automatic analysis of electronic signals. By combining manual systems with the Automatic Electronic Emitter Locating System, Ravens and intelligence specialists can simultaneously locate, identify, and analyze multiple electronic signals.

The Combat Sent records these signals for future reference or for extensive analysis by

of a wide variety of commercial off-the-shelf and proprietary hardware and software. Its current configuration allows for both manual and automatic analysis of electronic signals. By combining manual systems with the Automatic Electronic Emitter Locating System, Ravens and intelligence specialists can simultaneously locate, identify, and analyze multiple electronic signals.

The Combat Sent records these signals for future reference or for extensive analysis by electronic systems theorists. Any information garnered from the data will help determine detailed operating characteristics and capabilities of foreign systems. Evasion techniques and equipment are then developed from this knowledge that will detect, warn of, or defeat these electronic systems.

### **General Characteristics**

**Primary function:** Electronic intelligence reconnaissance and surveillance

**Contractor:** Boeing Aerospace

**Power Plant:** Four CFM International F108-CF-201 high bypass turbofan engines

**Thrust:** 21,600 pounds per engine

**Wingspan:** 135 feet, 1 inch (41.4 meters)

**Length:** 140 feet, 1 inch (42.6 meters)

**Height:** 41 feet, 8 inches (12.7 meters)

**Weight:** 165,7000 (75,160 kilograms)

**Maximum Takeoff Weight:** 299,000 pounds (135,626.4 kilograms)

**Fuel Capacity:** 130,000 pounds (58,967 kilograms)

**Speed:** 500+ miles per hour (Mach 0.66)

**Range:** 4,000 nautical miles

**Ceiling:** 35,000+ feet (10,668+ meters)

**Crew:** Two pilots, two navigators, two airborne systems engineers, and a minimum of 10 electronic warfare officers (flight crew from 45th RS) and six or more mission area specialists (mission crew from 97th IS)

**Unit Cost:** Not available

**Initial operational capability:** April 1964

**Inventory:** Active force, 2; ANG, 0; Reserve, 0

### **Point of Contact**

[Air Combat Command](#), Public Affairs Office; 130 Andrews St., Suite 202; Langley AFB, VA 23665-1987; DSN 574-5007 or 757-764-5007; e-mail: [accpa.operations@langley.af.mil](mailto:accpa.operations@langley.af.mil)

September 2007