

RC-135U COMBAT SENT

Current as of January 31, 2022



MISSION

The RC-135U Combat Sent provides precision scientific and technical 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 when operating with an augmented crew. Communication equipment includes high frequency, very high frequency, and ultra-high frequency radios. The navigation equipment incorporates ground navigation radar 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," wing tips, and extended tail.

Typical crew composition includes two pilots, one navigator, three airborne systems engineers, a minimum of eight electronic warfare officers (EWOs) and six or more mission area specialists. All Combat Sent airframe and mission systems modifications are overseen by L-3 Harris Technologies, under the oversight of 645 AESG (Big Safari), Air Force Materiel Command.

BACKGROUND

There are only two Combat Sent aircraft in the Air Force inventory and both are assigned to Air Combat Command's 55th Wing at Offutt AFB, Nebraska. The RC-135U aircraft are operated by crews from the 45th Reconnaissance Squadron and the 97th Intelligence Squadron. The Combat Sent employs a diverse suite of precision collection equipment. Its current configuration is comprised of both manual and automatic systems and enables EWOs to simultaneously locate, identify, and collect multiple signals of interest.

The precision data that Combat Sent collects is used to populate national databases and 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.

Characteristics

Primary function: Electronic intelligence reconnaissance and surveillance

Contractor: L-3 Harris Technologies **Power Plant:** Four CFM International F108-CF-201 high bypass turbofan engines

Thrust: 21,600 pounds per engine **Wingspan:** 135 feet, 1 inch

Length: 140 feet, 1 inch Height: 41 feet, 8 inches

Maximum Takeoff Weight: 322,500

pounds

Speed: 500+ miles per hour (Mach 0.66)

Range: 4,000 nautical miles

Ceiling: 50,000 feet

Crew: Two pilots, one navigator, three airborne systems engineers, a minimum of eight electronic warfare officers and six or more mission area specialists

Unit Cost: Not available

Initial operational capability: April

1964

Inventory: 2







