

# Hercules

## C130/L382 HF Shunt Antenna



ASB Avionics is pleased to announce the *HF Dorsal Shunt Antenna Modification Program* for the Hercules C-130/L-382 family of aircraft. Our HF dorsal shunt antenna program will take your existing HF system into the 21st century by replacing the existing long wire antenna with a dorsal mounted shunt antenna. The upgrade program includes the removal of the existing long wire antennas, the installation of a shunt antenna located in the dorsal fin, and the installation of new HF antenna couplers inside the pressure vessel below the dorsal fin.

*"Works great, excellent transmission and reception, no problems, flew day and night, went thru all the high and low frequencies, excellent communication every time. Other aircraft flying were complaining about bleed overs and range, but not with this antenna"*

*-Mike Redmon, Chief Pilot, Lynden Air Cargo Inc.*

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ASB Avionics announces the availability of an STC/PMA approved 2-29.999 MHz Dorsal mounted HF Shunt Antenna retrofit for the C130/L382 Hercules. The HF Shunt Antenna program compliments ASB Avionics existing state of the art Hercules Avionics Modernization & Upgrade Program introduced in 2002. The Dorsal mounted HF Shunt Antenna STC was approved on Dec. 9, 2003 followed by PMA approval on June 16, 2004. An international patent is pending.

This antenna is designed to fit all Lockheed Hercules models C-130A thru C-130H and L100/L382. The Dorsal mounted HF Shunt Antenna is applicable to any manufacturer's shunt/notch antenna coupler. The existing STC is for Rockwell Collins 490S-1 & CPL920D Air transport antenna couplers, with HF9000 couplers STC approval scheduled.

The installation of the HF antenna and improved

location of the antenna tuning and feed components results in dramatic improvement of the radiation pattern achieved. Tests have shown that at sea level communication of 2500 miles were the norm and transmissions a quarter way around the world is workable... from the ground!!! Practically equal 360 degrees of radiation is achieved in place of the figure eight pattern with maximum efficiency off the wing tips typical of the original long wire antennas.

Elimination of the antenna masts and long wires cures many maintenance/downtime issues and results in a drag reduction calculated to repay the cost of installation in approximately two years of commercial operation. Design of the kit is focused on rapid installation and allows it to be accomplished during a Scheduled "B" check.

ASB provides technical support for its' installations at approved facilities world wide.

# C-130/L-382 HF SHUNT ANTENNA SPECIFICATIONS

**Approval:** STC No. ST01574LA/PMA PQ2448NM

**Applicability:** Lockheed C-130 and L-382

**Location:** Dorsal fin

**Dimensions:** 134" X 14.5" X 10"

**Material:** Fiberglass and aluminum

**Weight change:** Plus 8.5 lbs

**Input:** From Collins HFS700, HFS900, HF9000D, Hf9500, 618T and 628T Transceivers. Antenna couplers Hf9041, Hf9545, 490S and CPL920/920D

**Power capability:** Up to 1000 Watts RF

**Frequency coverage:** 2.000 Mhz to 29.999 Mhz

**Total antenna resistance:** Less than 8 milliohm coupler feed to coupler rack.

**Exterior finish:** Rain resistant white "Capcoat" which may be over painted to suit desired paint scheme.

**Parts finish:** Alodine with primer.

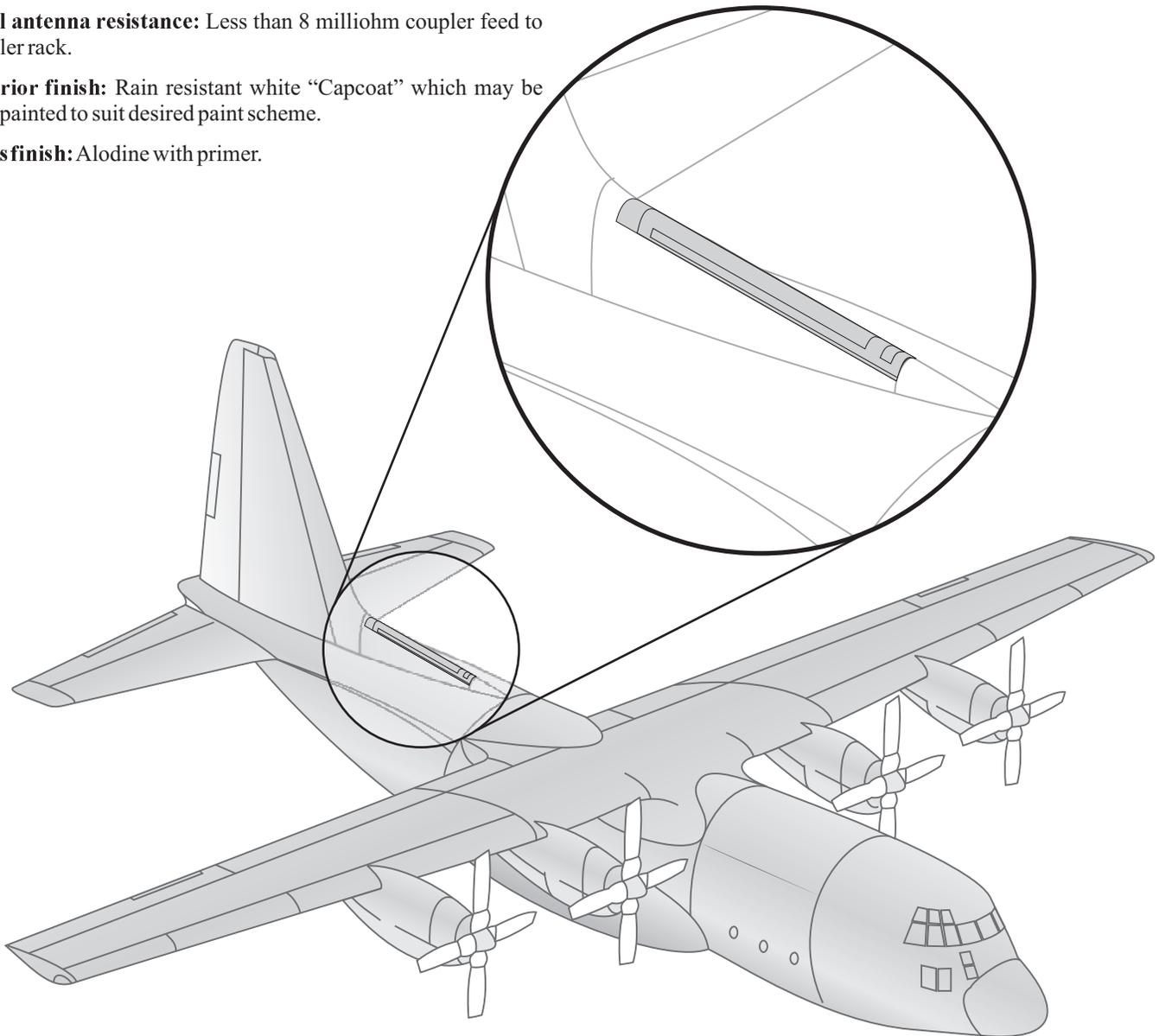
## Notes:

The antenna and its installation kit replaces the crown skin on the dorsal and installs a false spar and associated structural members.

The installation includes the racks and mounting shelf for the couplers and the pressure feed thru located in the ceiling of the aft cargo bay beneath the dorsal.

The net weight change is predicated on the removal of the long wire antennas, their masts, associated antenna tuners, and installation of the new antenna couplers.

Down time estimated at seven working days or 200 man hours



**ASB Avionics LLC.**

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