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Aircraft Instrumentation Division



# *Advanced Hawkeye*

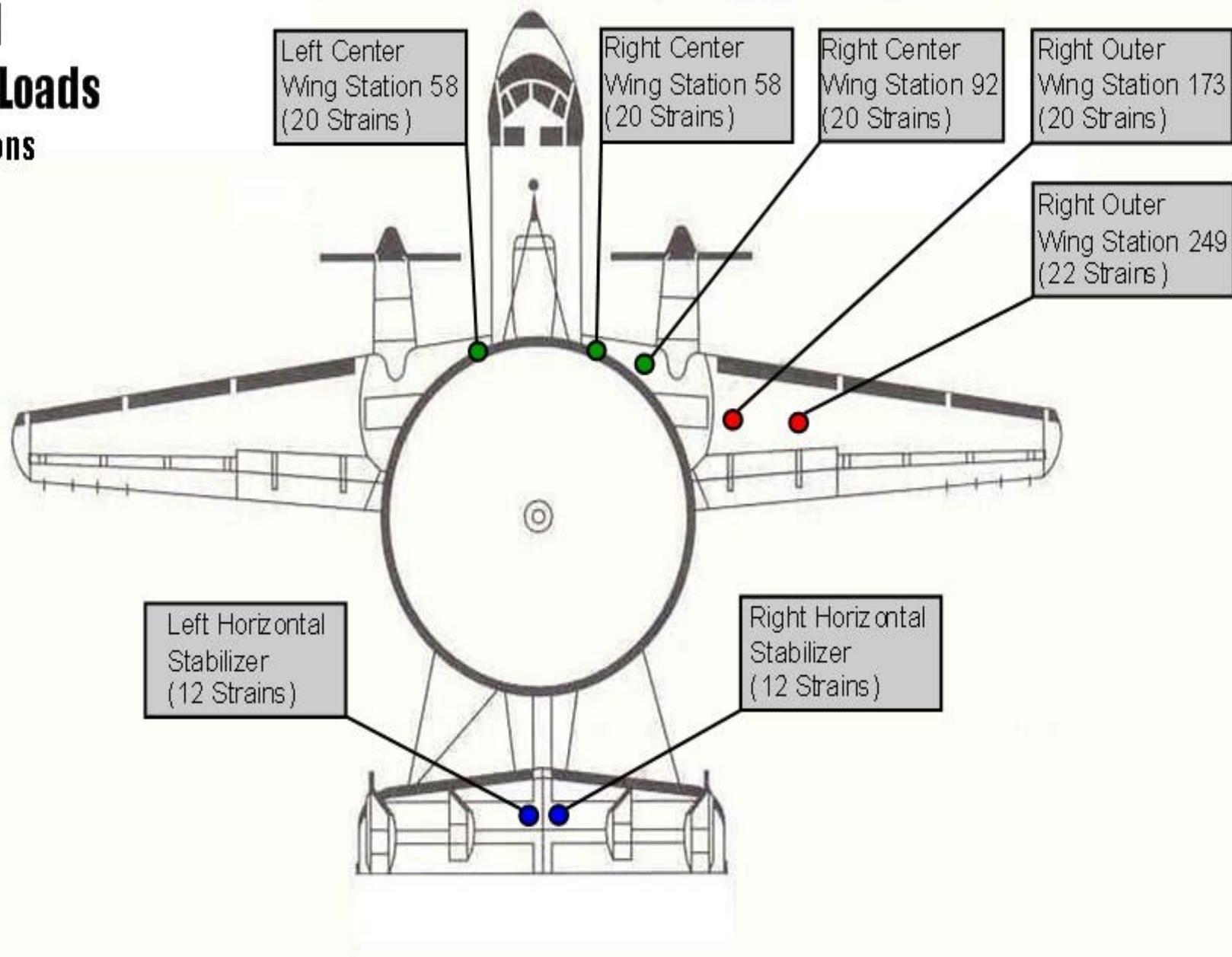
## Program Purpose:

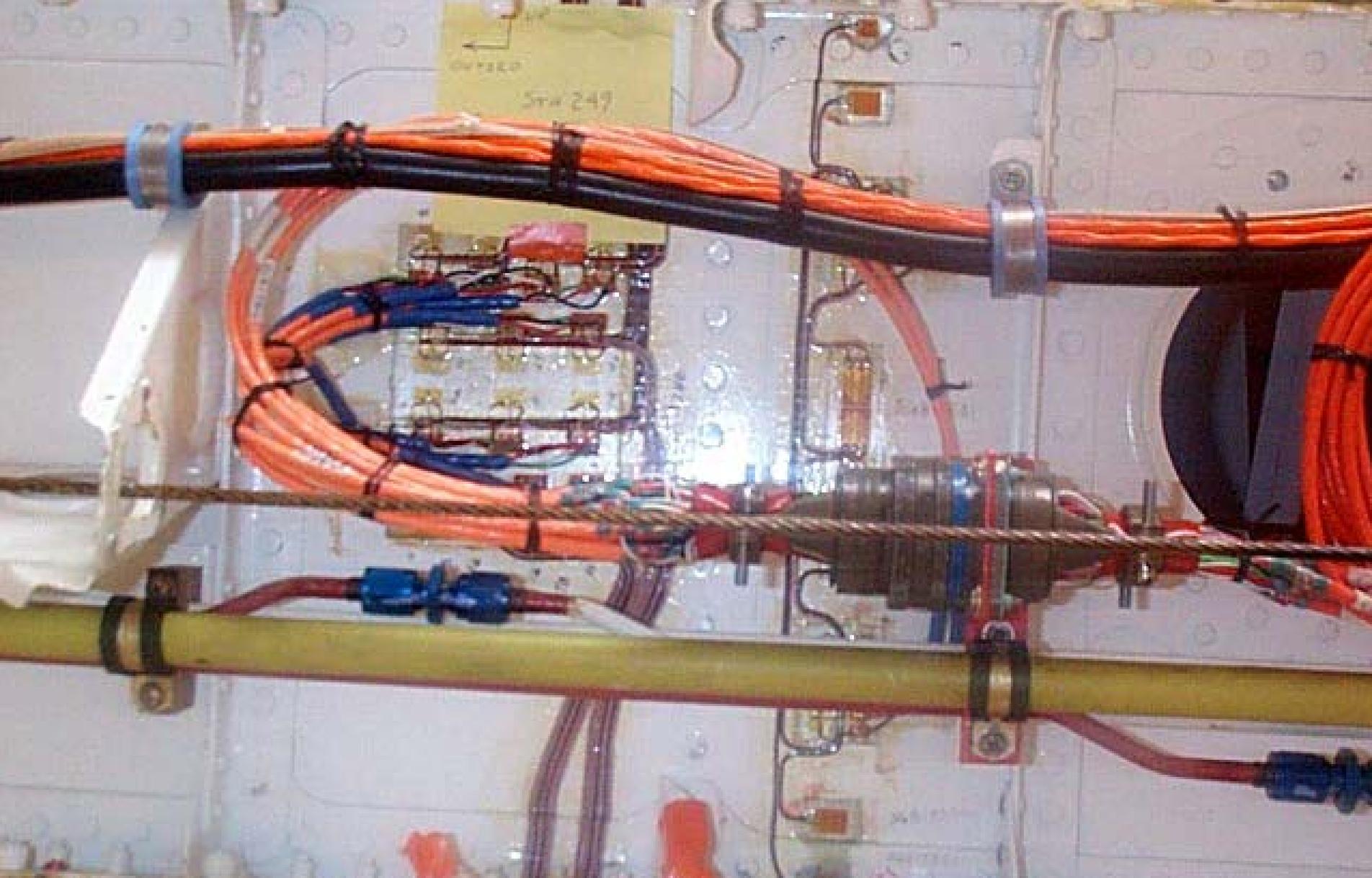
The system upgrades on the E-2D, Advanced Hawkeye (AHE), will increase the gross takeoff weight limit of the E-2C by 2500 pounds. As part of a risk reduction program for the AHE configuration with ballast at specific locations, the aircraft will be instrumented for flight loads verification to support and validate Northrop Grumman analysis. The test will consist of a ground test phase for loads calibration, followed by a flight test phase for loads data collection.



# Advanced Hawkeye Loads

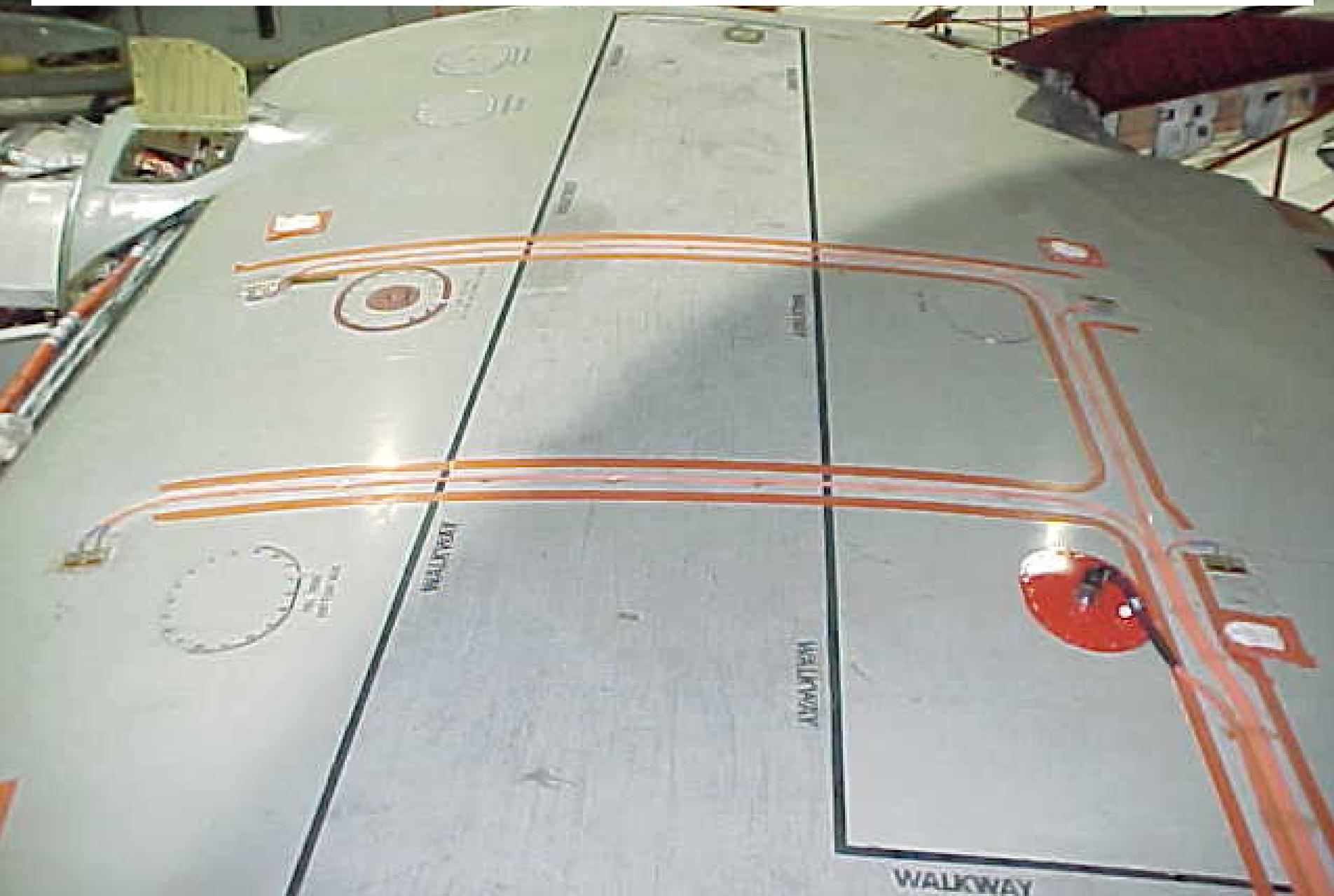
## Strain Locations





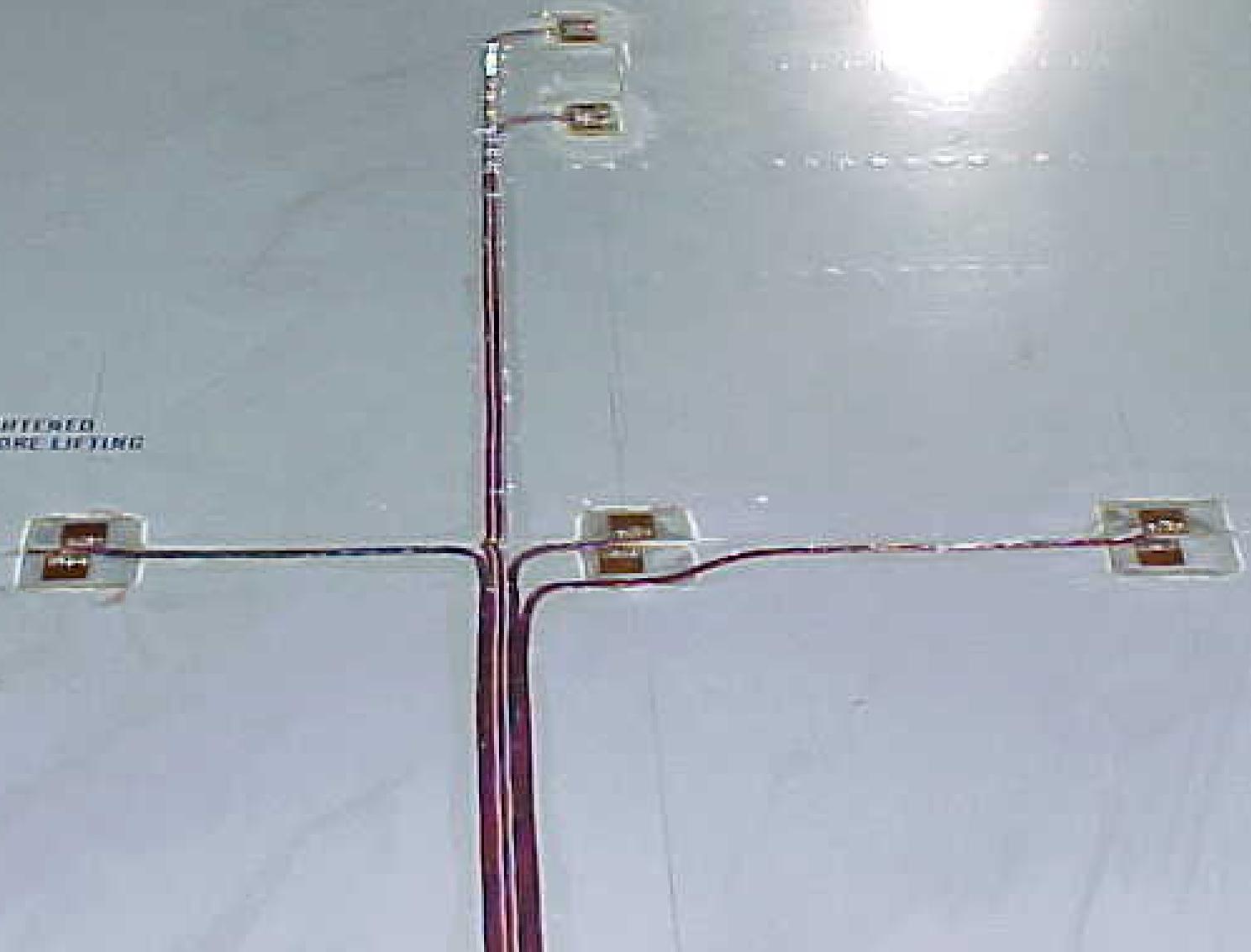
**Strain Gages Rt. Wing Fwd Spar Wing Station  
249**

# Strain Gages Upper Rt. Wing Stations 58 and 92

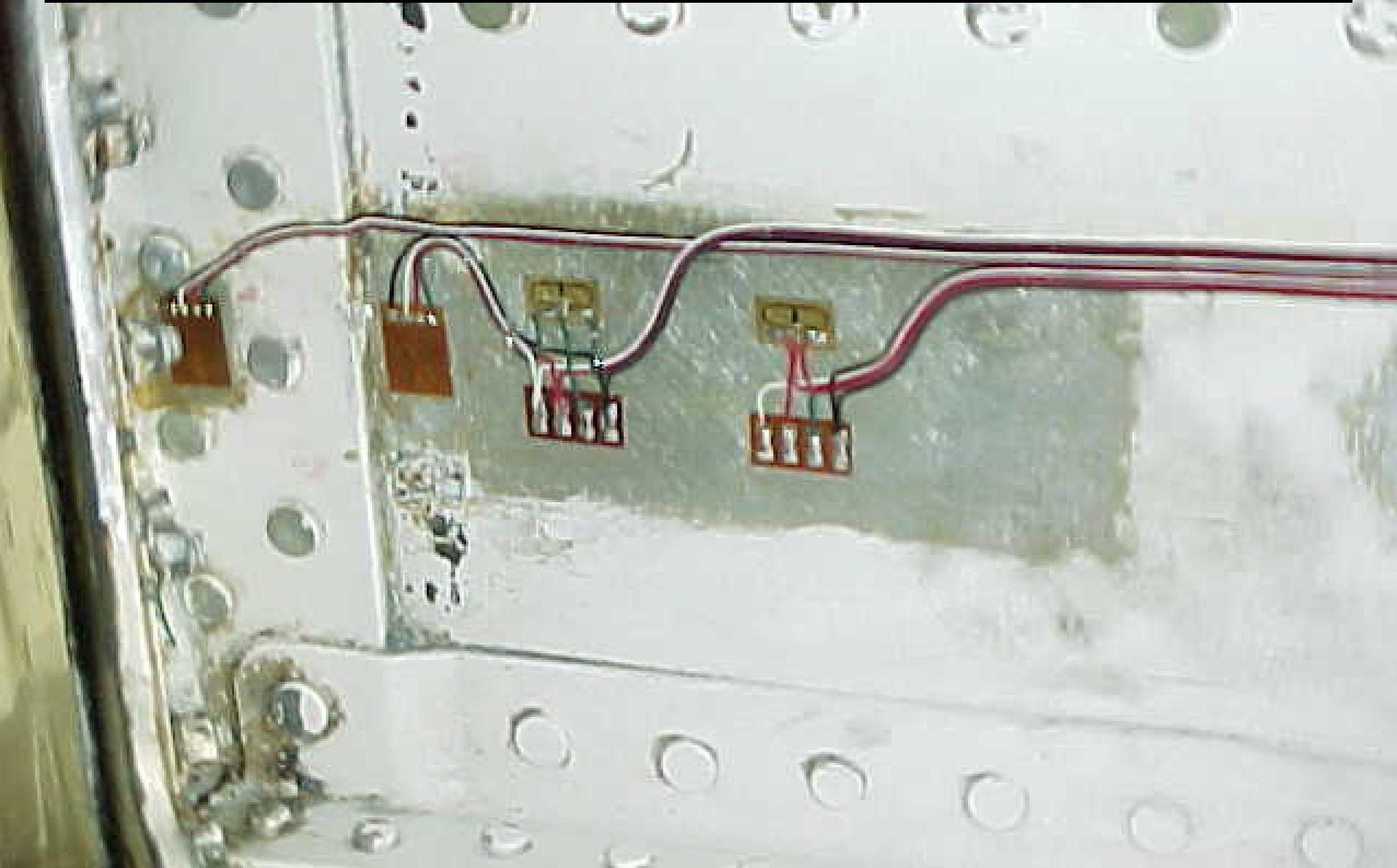


# Strain Gages at Rt. Wing Station 249

**HOIST**  
WELDER MUST BE TIGHTENED  
WIND SURFACE BEFORE LIFTING



**Strain Gages installed at Wing Station 249 – prior to application of Protective Coating**





Wing Load Calibration at NASA Dryden

# Tail Load Calibration at NASA Dryden



# Instrumentation Tidbits from the E-2C AHE Loads Project:

Total weight of transducers installed: 167.3 lbs.

Total weight of installation hardware (including ballast): 4138.3 lbs.

Total weight of wire: 126.8 lbs.

Total length of wire installed: 270,825 ft. or about 51 miles



Questions?

