



F-5E & F Upper & Lower Cockpit Longerons

Replacement, Special Tools & Installation Training

Technical Documentation For Cockpit Longerons Inspection

T.O. 1F-5E-3 STRUCTURAL REPAIR MANUAL

SINGLE SEAT F-5E

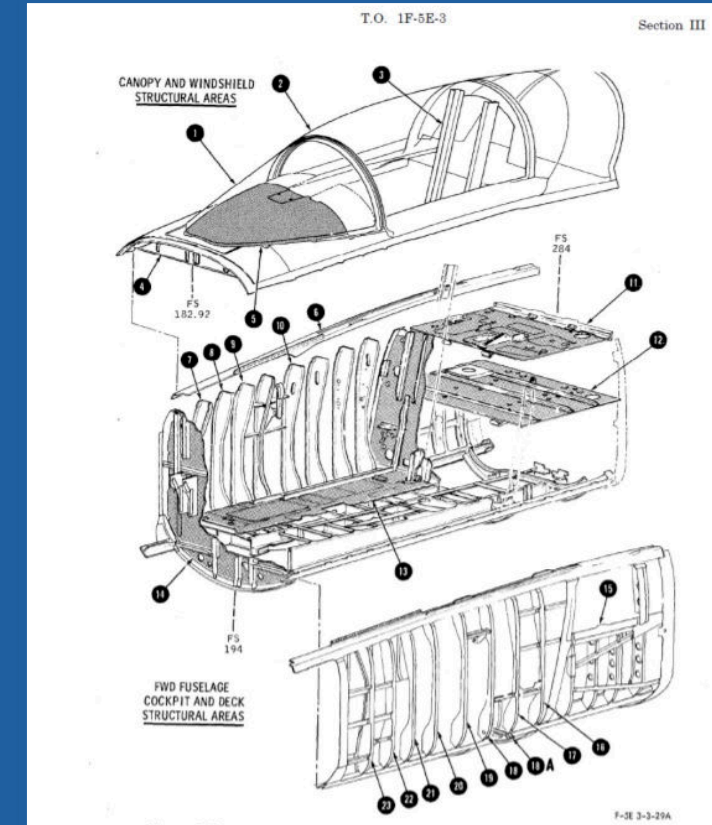
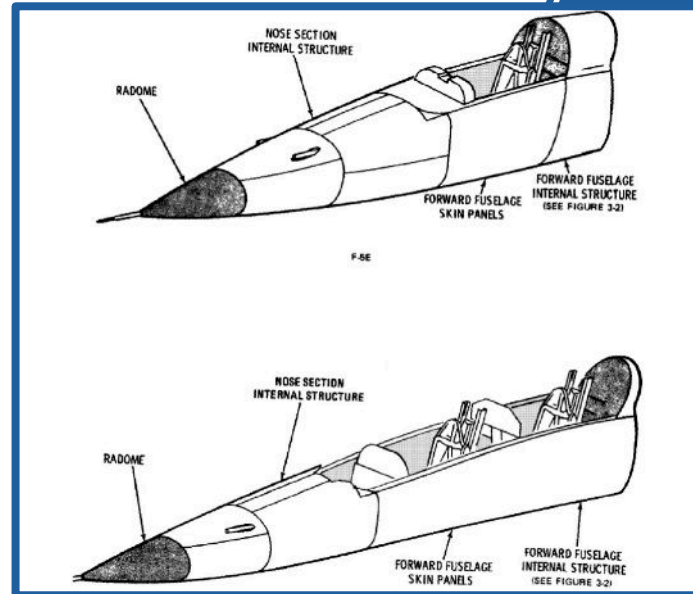
- SECTION III - Pages 3-53 to 3-243
- SECTION III C127 – Sheets 1-31
- SECTION III Paragraph 3-42 to 3-42B
- Page 3-42. Fuselage Structure Repairs
- 3-42A. Fuselage Structure
- 3-42B. RK1001 Installation

2 SEAT F-5F

- SECTION III 3.359 SHEETS 1-40
- SECTION III Pages 3-53 to 3-243

INSPECTION LOCATIONS ON AIRCRAFT

- F-5E Cockpit Longerons Located FS 182.92 to FS284.00
- F-5F Cockpit Longerons Located FS 135.00 to FS 284.00



Add Reference Data:
TECHNICAL ORDERS (WORKCARDS):
1F-5E-6WC-1 to 6WC-6 & WC-9.
ASIP Inspections
T.O. 1F-5E-6

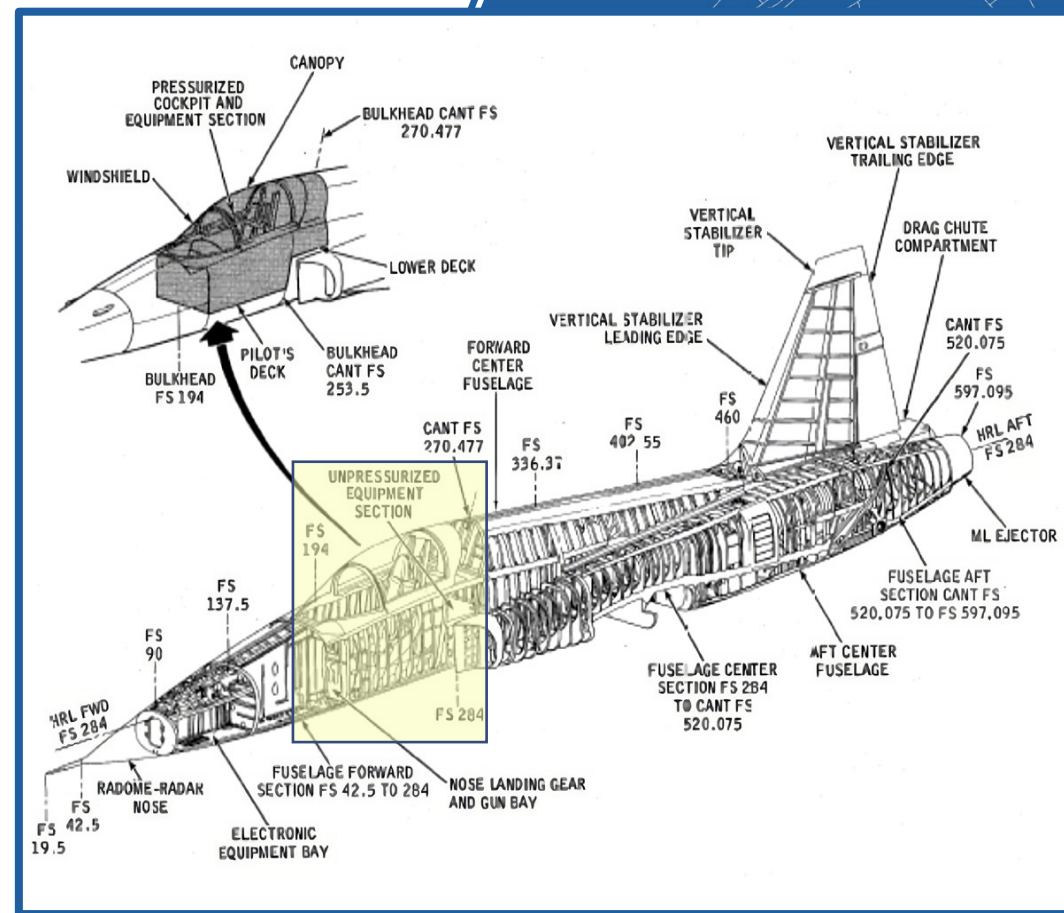
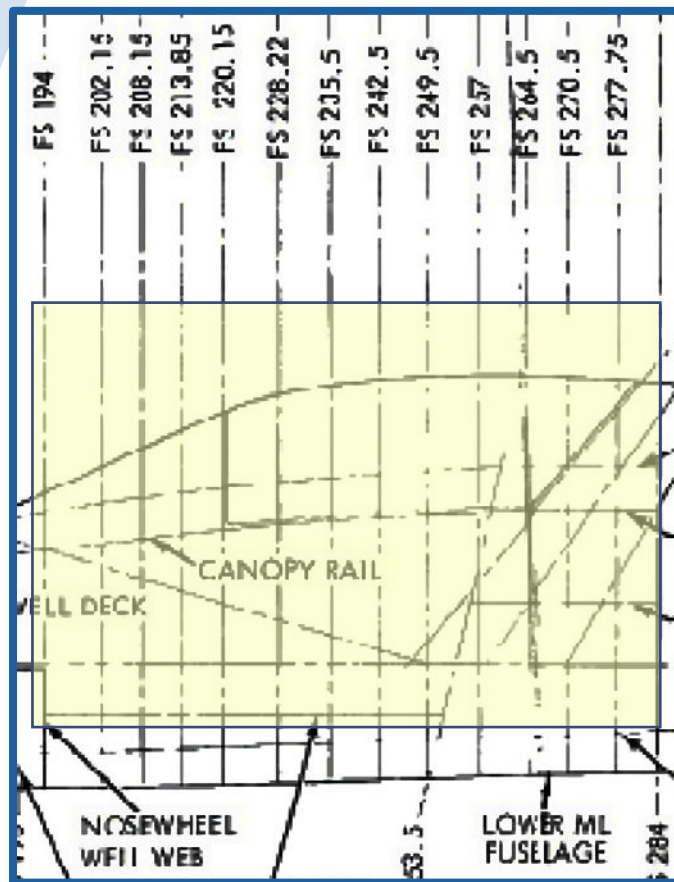
Lower Cockpit Longeron Repair Program



F-5 E and F-5 F Forward Fuselage – location of cockpit longerons



Location of Cockpit Longerons FS 194.00 – FS 284.00



Training Aids for RK1001 Longeron Repair



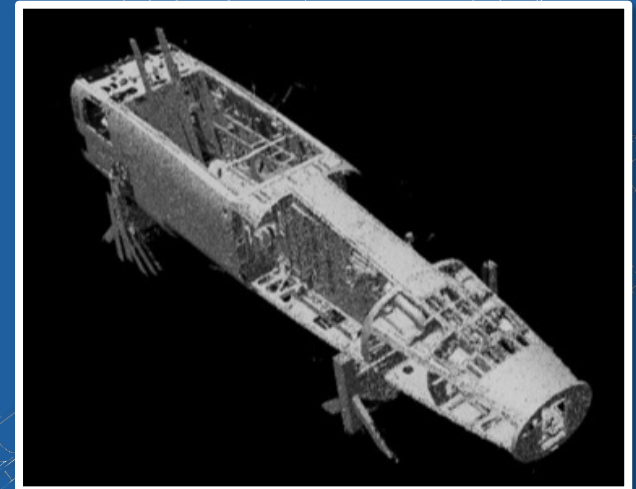
COC uses our Forward Fuselage Section to set up all of the Dimensional Data Recording using our U.S. Patented processes.



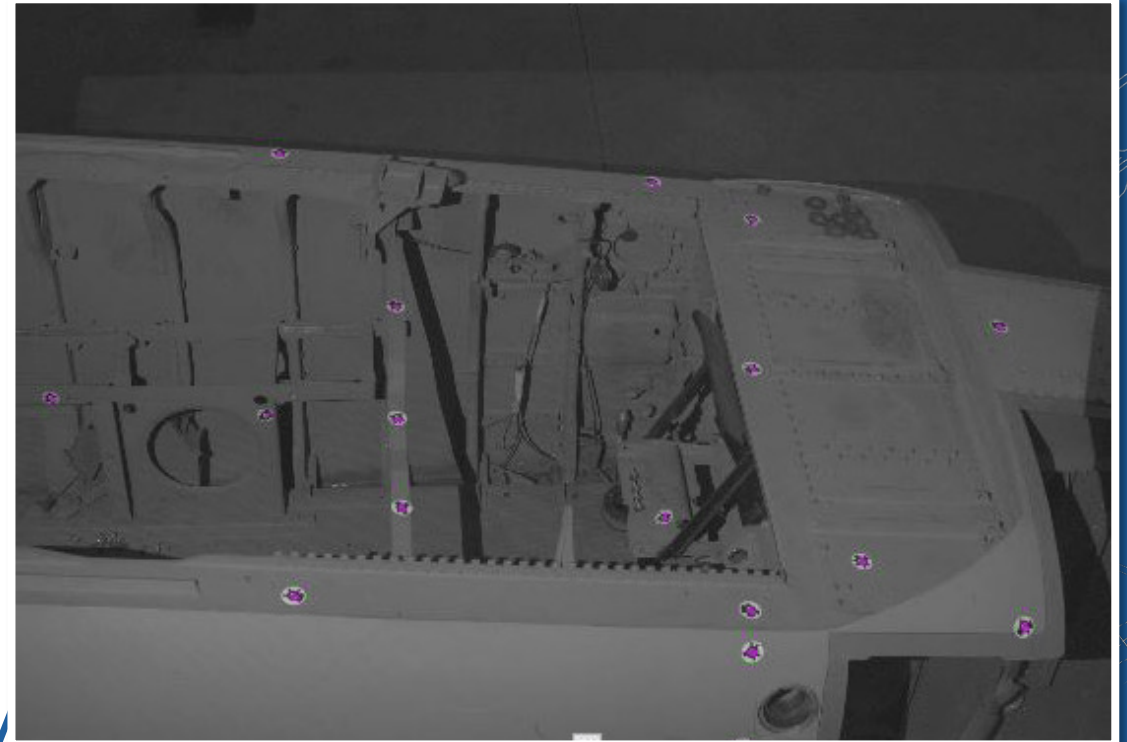
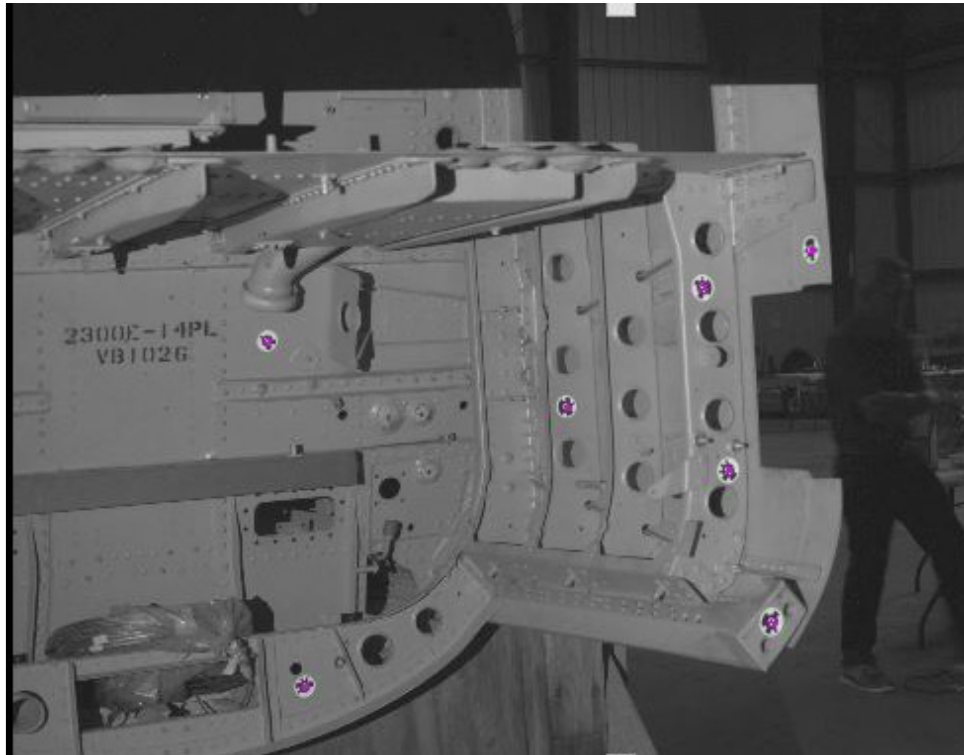
All of the dimensions and features of the part are captured with the Photogrammetry equipment, then imported into 3D Surface Software.



This data is then used on the aircraft to be repaired.



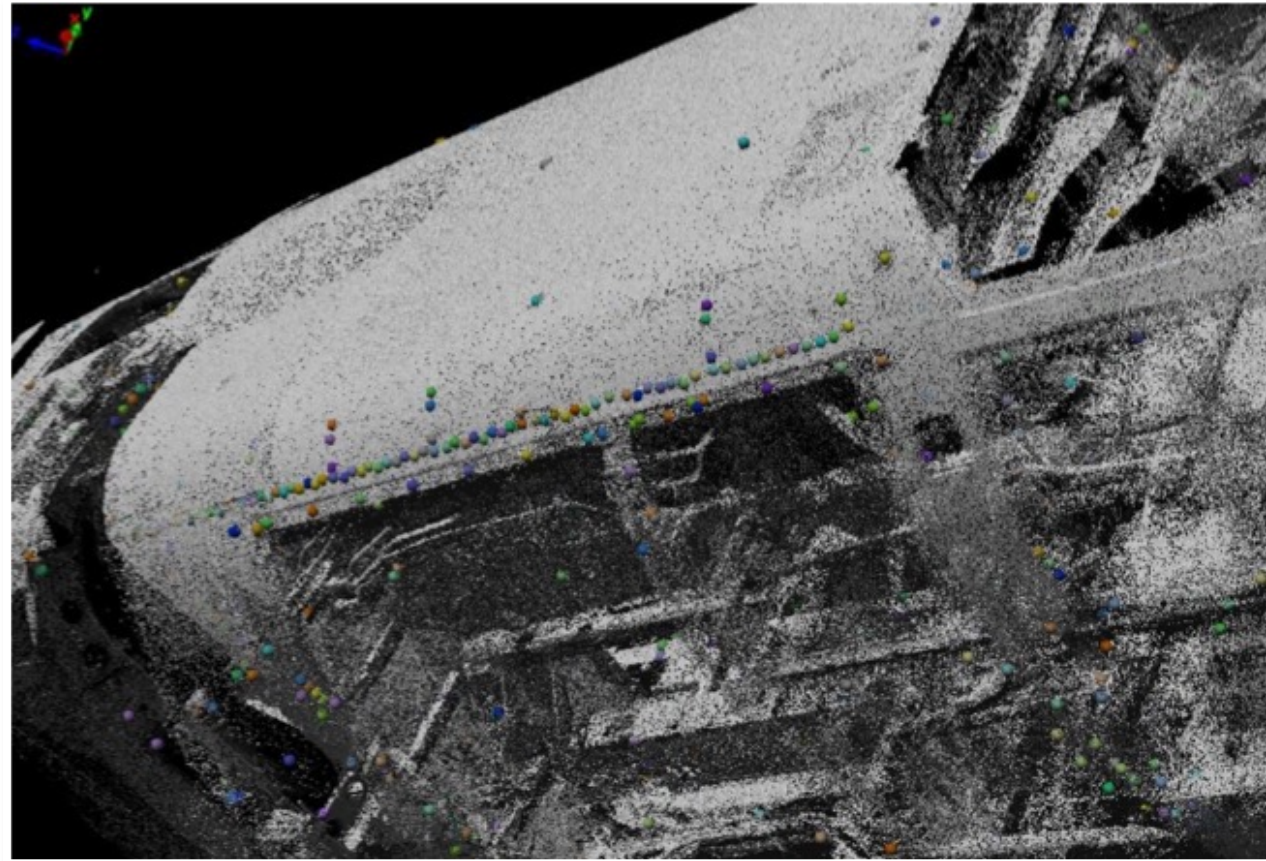
Inspect all Formers, Clips, Brackets attached



Inspect lower skins and bulkheads



**Colored dots signify
different fastener
types.**



Recommended Additional Inspections

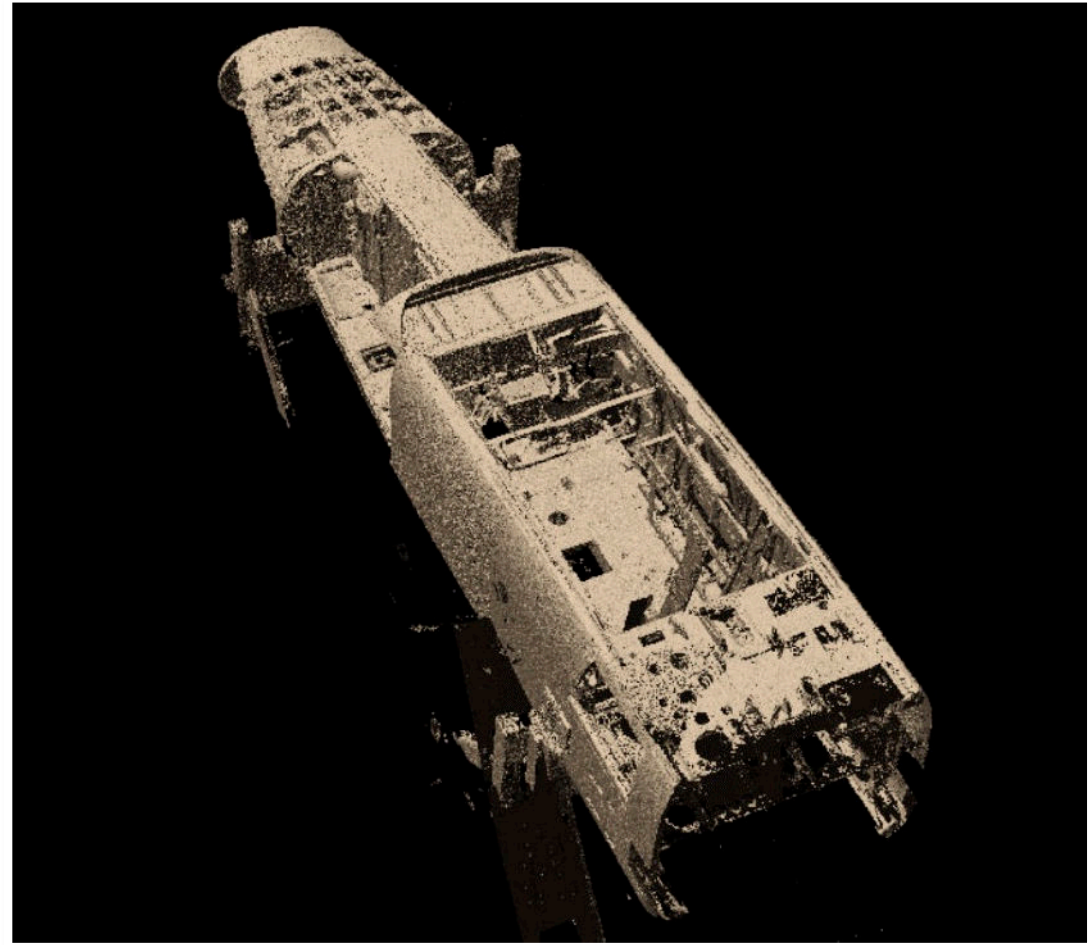


Recommended Additional Inspections while aircraft cockpit is disassembled.



Inspect entire internal Instructure of cockpit including:

- **Floor panels,**
- **Rear bulkhead,**
- **Formers,**
- **Brackets**
- **Clips.**



Point Cloud data is collected into 3D surface model



**All of the 3D
dimensions of the
aero-structure to
tolerances of less
than 0.005"**



Photogrammetry session with F-5



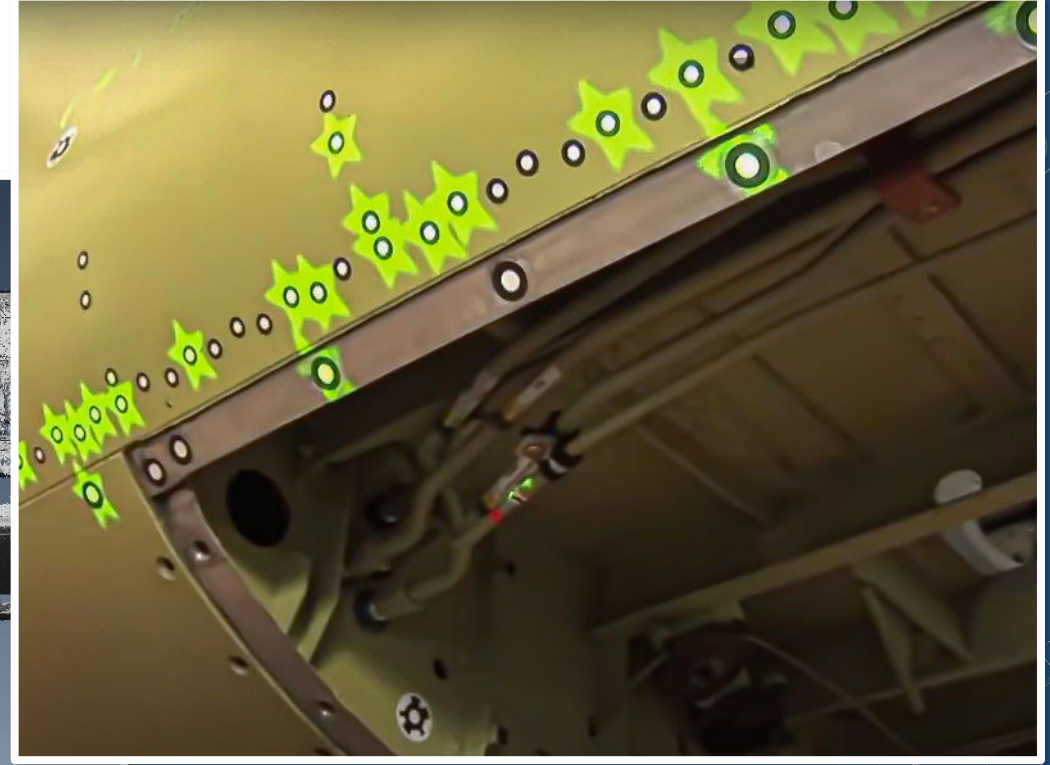
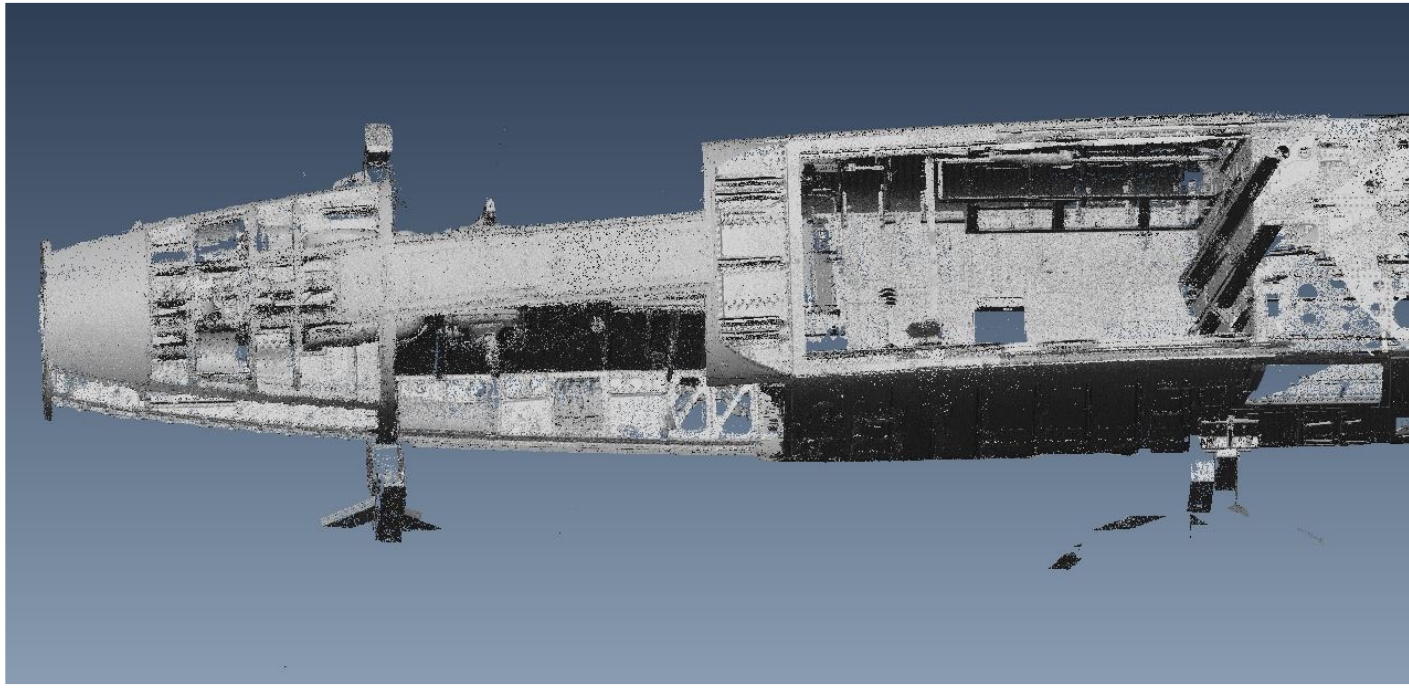
Aircraft fuselage is scanned with our cameras.



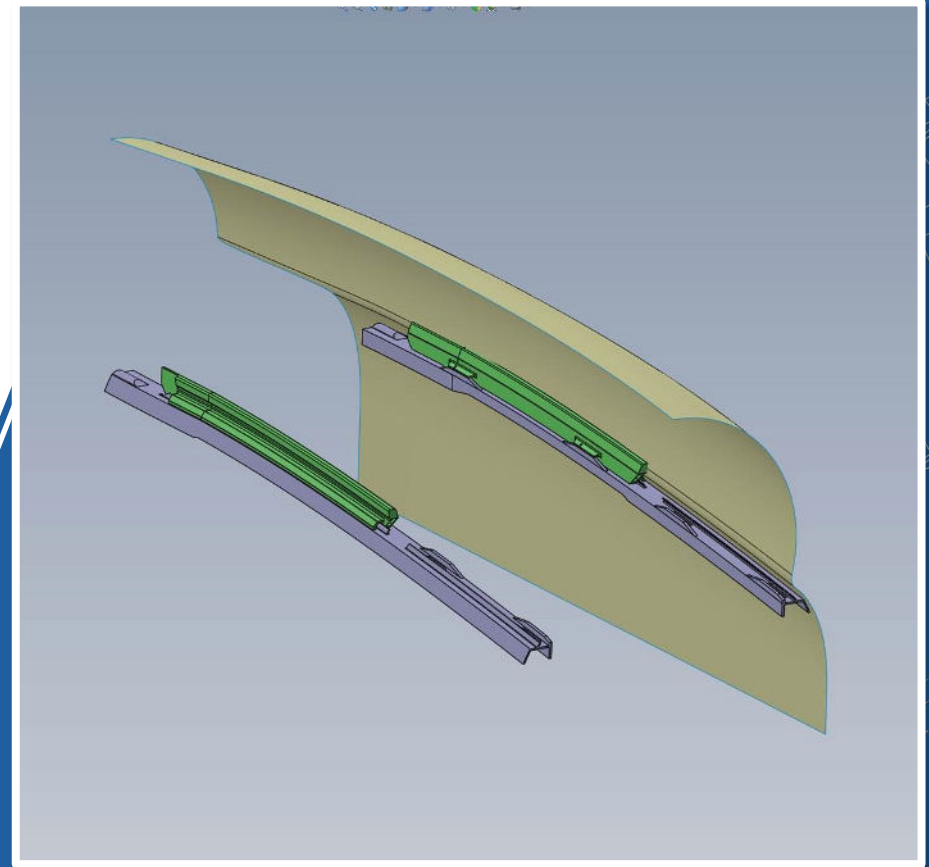
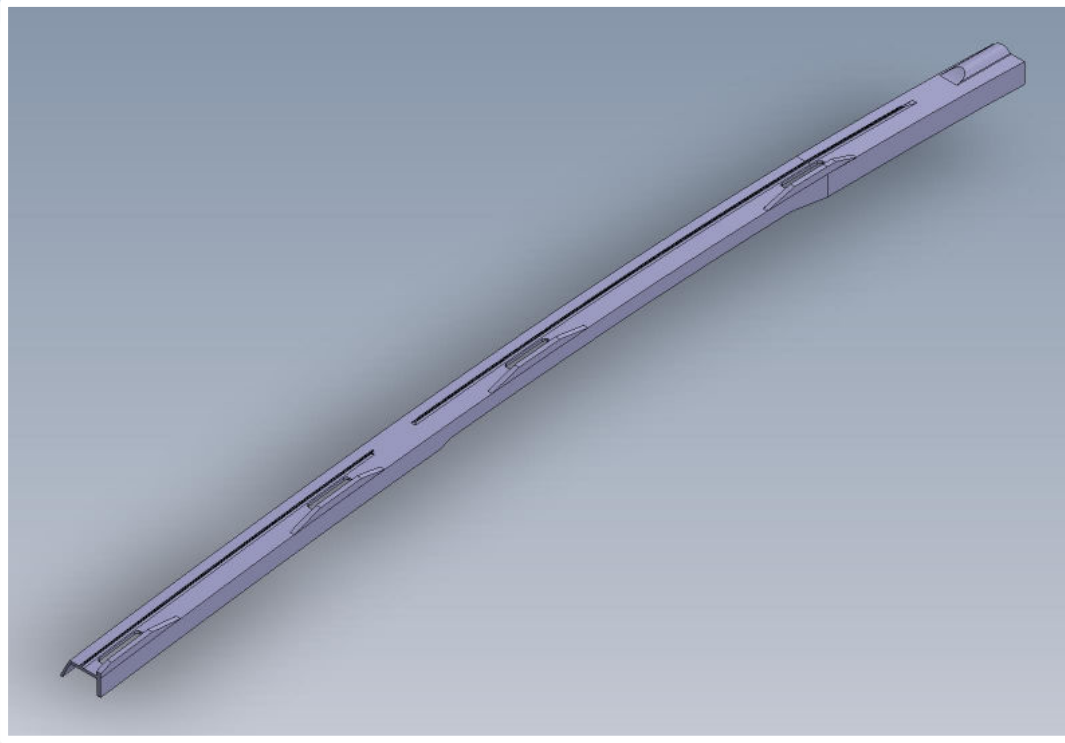
Data is collected in 3D Surface Software.



From Scanned part to 3D Surface Model



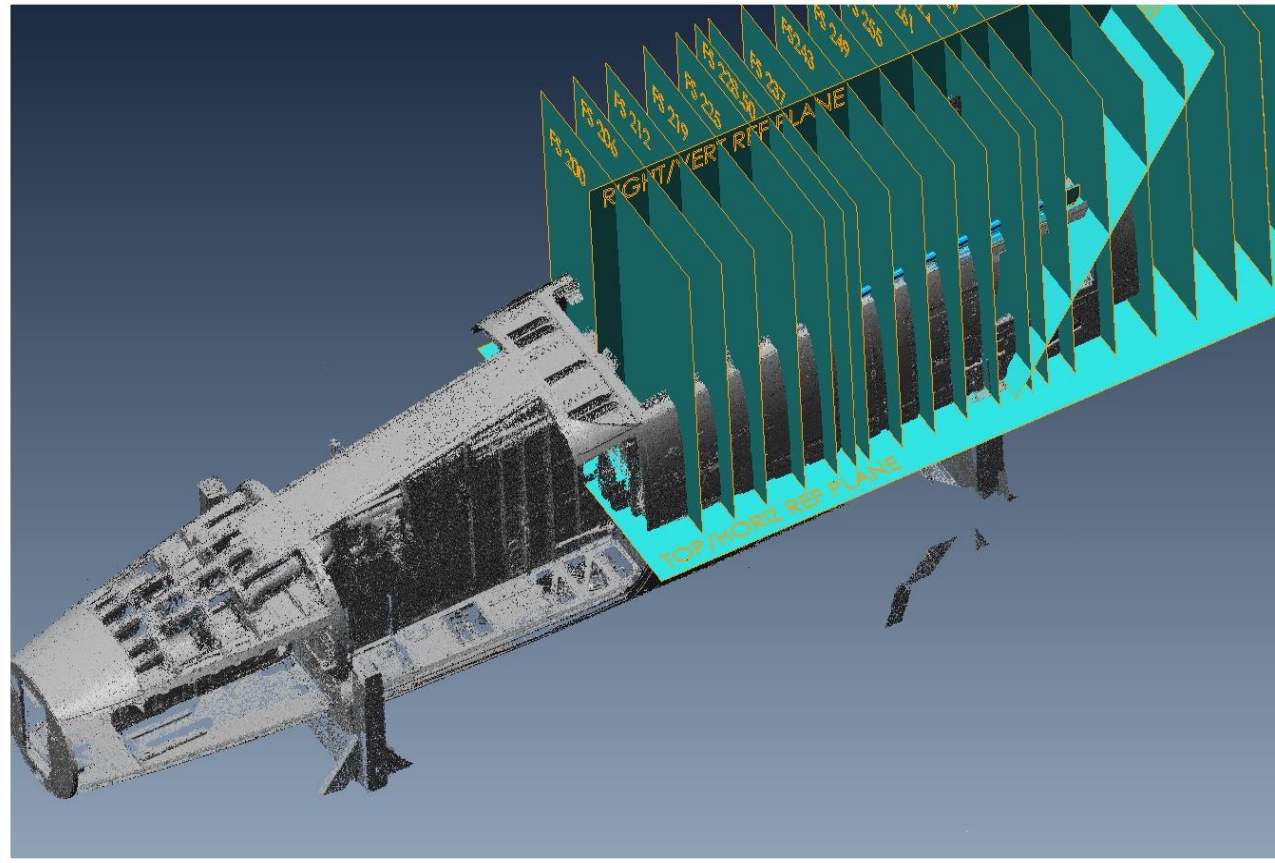
Upper Cockpit Longerons modeled in CAD are positioned 'as installed into F-5 airframe



Upper Cockpit Longerons modeled in CAD are positioned 'as installed into F-5 airframe



With fuselage stations identified.



Video Projection directly on to the work area



All of the Work Instructions are displayed on the aircraft aero-structure, eliminating the need to refer to Work Cards, T.O.s etc.





The COC F-5 Team - www.coc-aerospace.com



EXPERIENCE - OVER 5 DECADES YEARS SUPPORTING LEGACY AIRCRAFT
CUSTOMER SERVICE - OVER 50 YEARS SUPPORTING THE SAME CUSTOMERS
TRUST - ABOVE ALL, WE ALWAYS DO THE RIGHT THING