ACCLIP 2021 Overall Layout

Payload Bay:
Forward Transition – MMS electronics
Pallet 1 (P301) – SP2, UTLS-AMP
Pallet 2 (NOAA) – LIF SO2, LIF NO
Pallet 3 (P304) – COMA, ChiWIS
Pallet 4 (P305) – WAS, ChiWIS (Overhang)
Aft Transition –

As of 6/24/21
MMS (Nose and FWD Transition)

- Same configuration as MACPEX
- PI: Paul Bui
- TP-FRP 734

Probe moved to camera window
MMS 4-probes
Data System
INS: LN100g & CMIGIT
Forward transition area
Inside nose, right side
Probes
Transducers & Sensors
Left inside nose: transducer
PALMS (Nose)

- Similar configuration to MACPEX
- PI: Gregg Schill
- Temp EWOs 19-001007 Part 1 and 2
- TP-FRP 745
UTLS-AMP (Pallet 1)

- Similar configuration to MACPEX
- PI: Luke Ziemba
- Temp EWOs 19-001005 Part 1 and 2
  - Sheet metal required to modify payload plate to permit installation of air scoop
- TP-FRP 822

Figure 1: WB-57 pallet installation layout for ACCLIP mission. NMASS (rack, bottom), UHSAS (rack, top), pumps (rack, rear), and PNI (below pallet), view looking aft.
SP-2 (Pallet 1)

- Similar configuration to MACPEX
- PI: Joshua Schwarz
- Fabrication EWO 34-000693
  - Inlet Reinforcement
- Change EWO 16-002208
  - Cut Inlet Mounting Hole and Add Reinforcement
- TP-FRP 741
NO-LIF (Pallet 2)

- New Instrument
- PI: Drew Rollins
- Temp EWOs 19-001002 Part 1 and 2
- TP-FRP 820
SO2-LIF (Pallet 2)

- Similar configuration to POSIDON
- PI: Drew Rollins
- Temp EWOs 19-001002 Part 1 and 2
- TP-FRP 795
COMA (Pallet 3)

- New Instrument
- PI: James Podolske
- Fabrication EWO 34-000686
  - Inlet Mounting Plate
- Change EWO 16-002210
  - Adding a stringer to the pallet along inlet opening
- Temp EWOs 19-001006 Part 1 and 2
  - Match drill rails on rack to pallet
  - Match drill inlet plate to pallet
- TP-FRP 821
ChiWIS (Pallet 3, overhangs Pallet 4)

- New Instrument
- PI: Liz Moyer
- Fabrication EWO 34-000685
  - Mounting Rails
- Change EWO 16-002209
  - Reinforce existing inlet mount on aft transition RH side
- Temp EWOs 19-001008 Part 1 and 2
- TP-FRP 819
WAS (Pallet 4)

- Similar configuration to POSIDON
- PI: Elliott Atlas
- TP-FRP 797
DLH (LH Spearpod + Hatch)

- Similar configuration to POSIDON with a new target location below the Superpod
- PI: Glenn Diskin
- TP-FRP 748
ISAF (LH Superpod Forebody)

- New Instrument
- PI: Tom Hanisco
- Fabrication EWO 34-000692
  - Mounting Rack
- Temp EWOs 19-001009 Part 1 and 2
- TP-FRP 818

ISAF payload layout. Superpod rack shown in red, superpod structural elements in yellow. Aircraft fore is to the left. Mounting brackets for scrubber and pump control box are not shown.
UAS O3 (LH Superpod Pylon)

- Similar configuration to POSIDON but installed in a new location
- PI: Troy Thornberry
- Temp EWOs 19-001010 Part 1 and 2
- TP-FRP 742

Figure 2. A photo of the NOAA UASO3 instrument (without its enclosure) showing a: fans; b: heaters; c: catalytic scrubber; d: flow control valve; e: sample flow sensor; f: sample line; g: exhaust line; h: optics housing and optical cells.
Roscoe (RH Superpod Forebody + Pylon)

- New Instrument
- PI: Andrew Kupchock
- Temp EWOs 19-001000 Part 1 and 2
  - Match Drill Required for Data System Plate to Superpod Pylon FWD Mounting Area
- TP-FRP 817

**Figure 1.2:** The Roscoe instrument in ER-2 configuration. On the left, the gold frame is the ER-2 interface rack, the orange insulated box houses the instrument, and mounted behind the box on the rack, is the laser power supply box. The data system is pictured in the photo to the right mounted to a plate in the midbody of the ER-2 superpod.
Aircraft Configuration

- Fabrication EWO 34-000679
  - Cables
- Change EWO 16-002205 Part 1 and 2
  - Install Ethernet wiring for KVM on the left and right wings
  - NOTE: Only part 1 is required for the mission. Part 2 can be accomplished when convenient for maintenance.
- Change EWO 16-002207
  - Install coax cables for time code generator and INMARSAT Systems
- Temporary EWO 19-001003 Part 1 and 2
  - Initial Configuration for ACCLIP
  - Removal of initial configuration
- TP-FRP 705 INMARSAT Install