



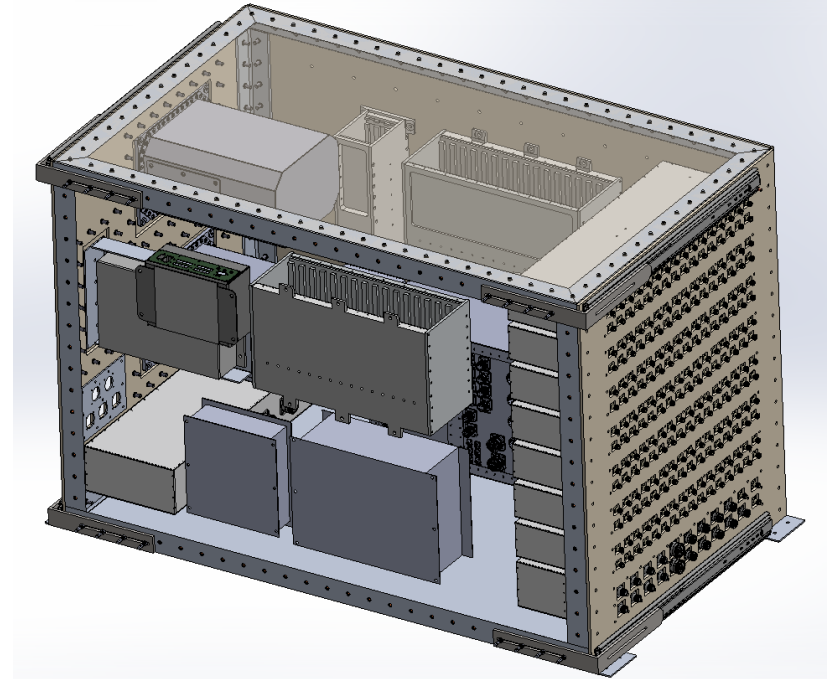
MIE & SIP Status

Bijan Chamanbahar

Current MIE Configuration

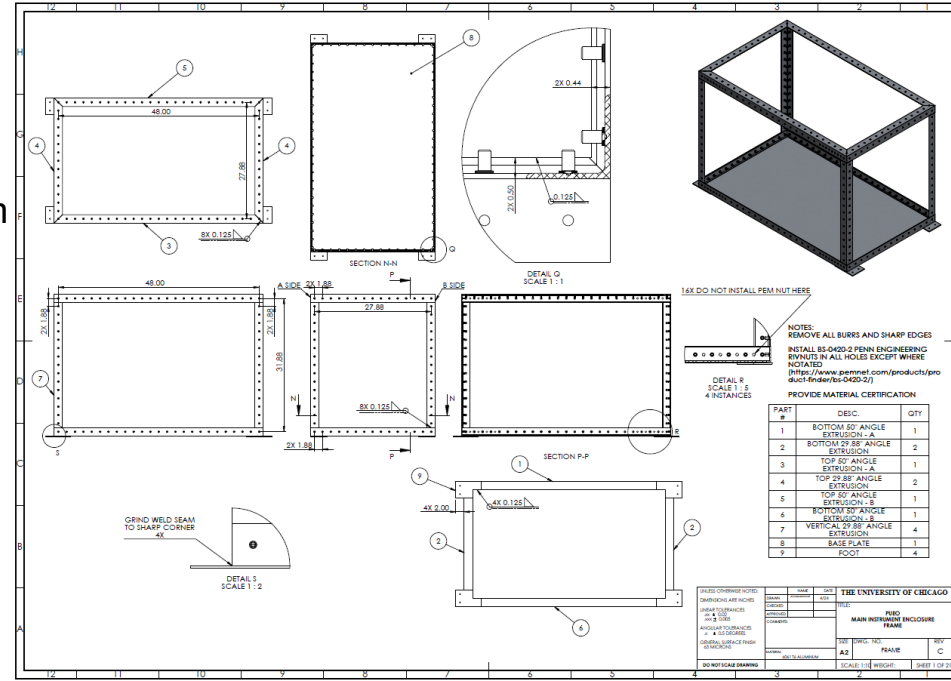
- Placements and features have been finalized
- Total weight is now 671 lbs

Part Name	Mass (lbs)	Qty	Total Mass
Frame	19.95	1	19.95
Rad Panel	62.5	2	125
RF Panel	20	1	20
Outboard Panel	17.2	1	17.2
Base Panel	17.33	1	17.33
Top Panel	18.16	1	18.16
Grab and Gos	6.51	1	6.51
Handles	0.3	3	0.9
Reciever box	15	7	105
TURF	6.2	1	6.2
Large Reciever box	22	2	44
c-PCI-S	50	2	100
Power box	40	1	40
CPU Crate	10	1	10
Science Stack	6.375	1	6.375
Sun sensor/GNSS	10	1	7.5
SSD Mount	2.46	1	2.46
SSD box	7	1	7
Pals	16.3	2	32.6
Starlink PSU	5	1	5
Cables	80	1	80
			TOTAL MASS
			671.185



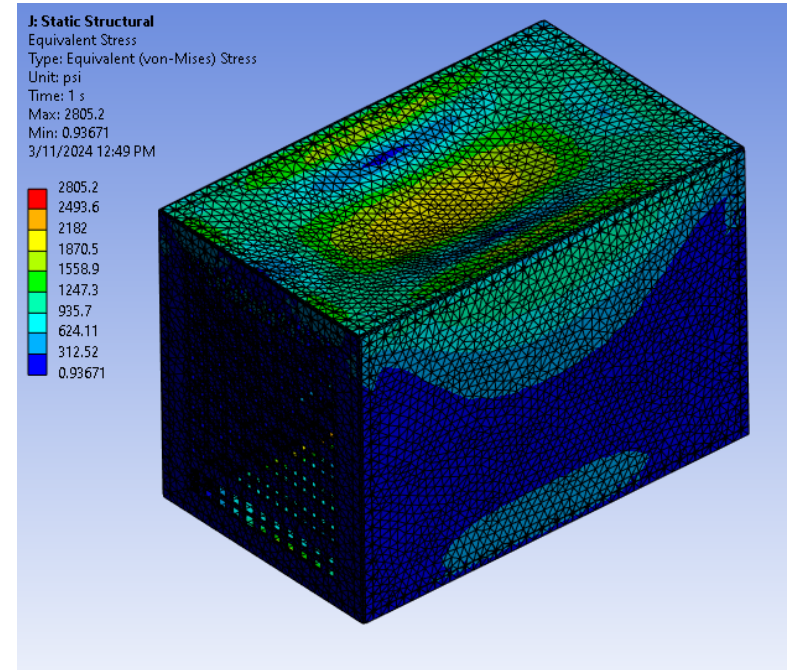
MIE Fabrication Status

- Currently in active correspondence with two shops for a quote
- Waiting to hear back from reliable plating for electroless nickel plating quote
- Changed material from magnesium to aluminum for a quicker lead time
- Once a quote has been received more accurate schedule adjustments can be made



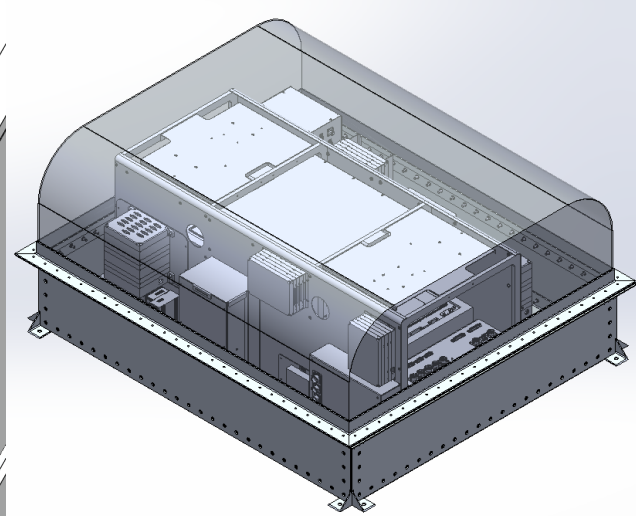
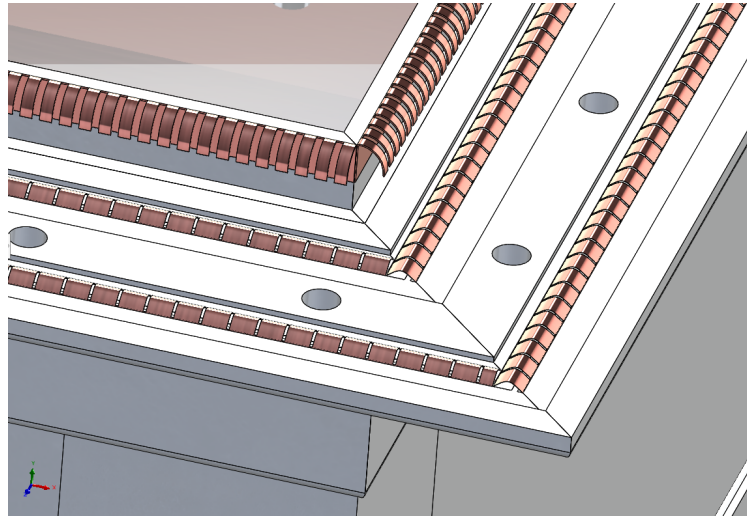
MIE Next steps

- Continue communication with shops to expedite manufacturing
- Re-run analysis with updated materials
- Draft cable routing for assembly assistance and cable lengths
- Testing and assembly
- Ship to palestine



Current SIP Configuration

- All dimensions are kept similar to original SIP
- Utilizes flange + fingerstock for RF sealing
- Current weight: 119lbs (Frame only)

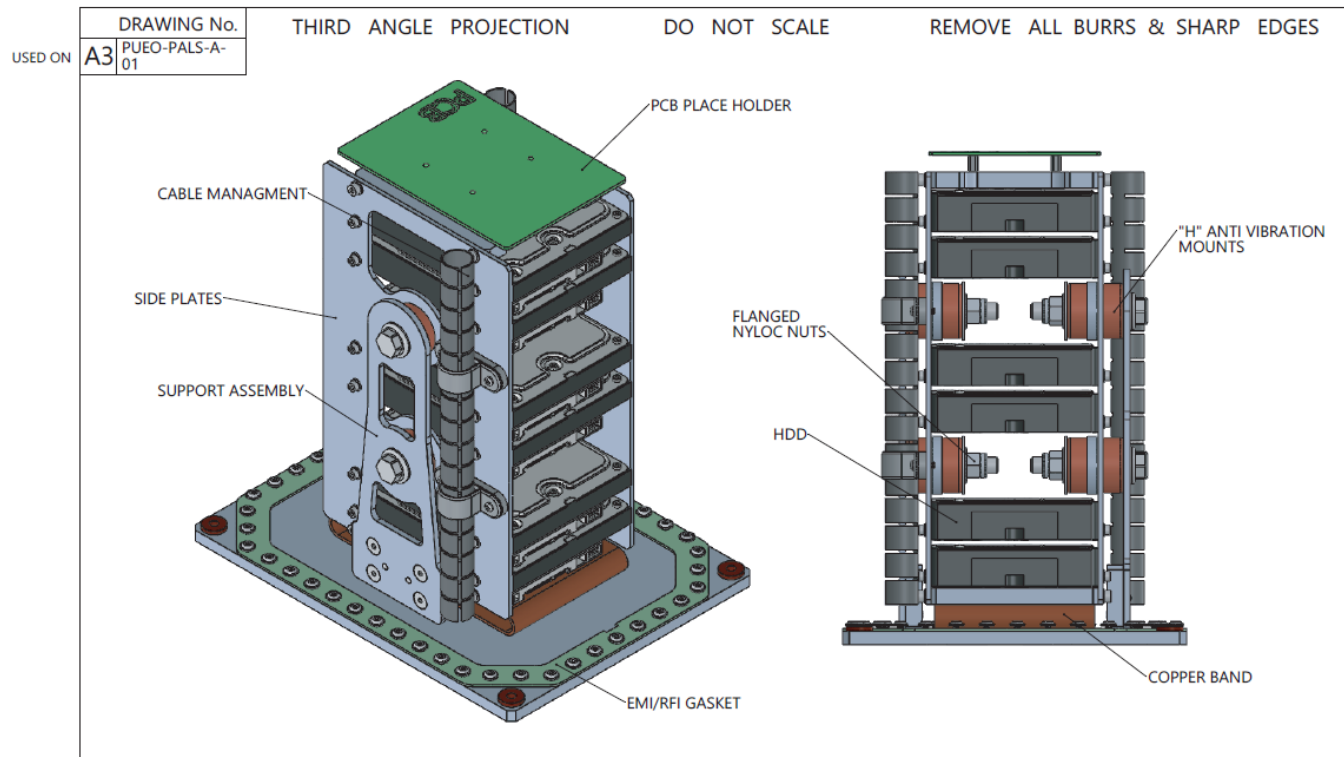




SIP Next Steps

- Add receiver boxes and cutouts to assembly
- Finalize weights
- Run analysis and validation (CSBF involvement?)
- Draft drawings and start manufacture

PALS: HDD storage box



Weight:

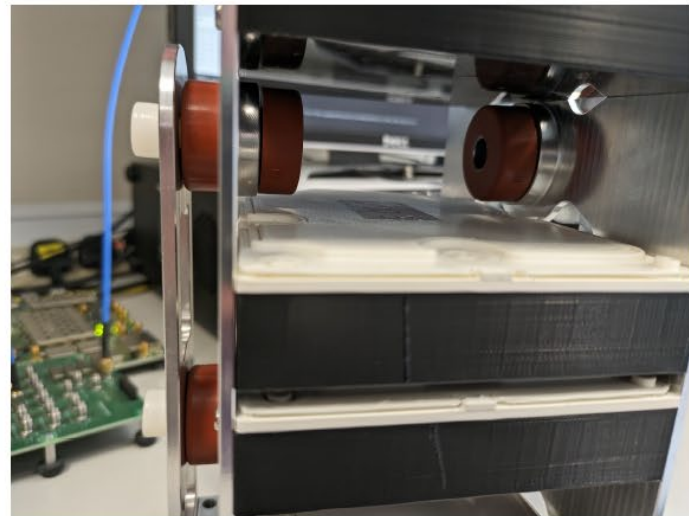
- 7.38 kg / 16.27 lbs with 6 HDDs
- 3.36 kgs / 7.41 lbs without HDDs

Outstanding questions:

1. PCB design
2. Cable and feedthrough selection
3. Location of patch panel on PALS box (top or side?)

Currently in production

ISSUE P1	SHEET 5 OF 5	PROTECTIVE FINISH N/A	MATERIAL & SPECIFICATION N/A	TOLERANCES X = ± 0.5 XX = ± 0.1 XXX = ± 0.02 SURFACE FINISH MACHINED FACES Ra 3.2 ANGULAR ±1°		UNIVERSITY COLLEGE LONDON DEPARTMENT OF PHYSICS & ASTRONOMY	
	DATE 18 April 2024	DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE STATED		SCALE 1:5	TITLE : PALS ENCLOSURE OVERVIEW	DRAWING No. A3 PUEO-PALS-A-01	
DRAWN & DESIGNED BY CONNOR GODDEN & HARRY BARNETT							



Vacuum tests down to 1.5 mbar carried out for:

- anti vibration mounts (shown above)
- and HDD