Mission 7300 Payload

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HANDLE VIA BYEMAN
CONTROL SYSTEM ONLY

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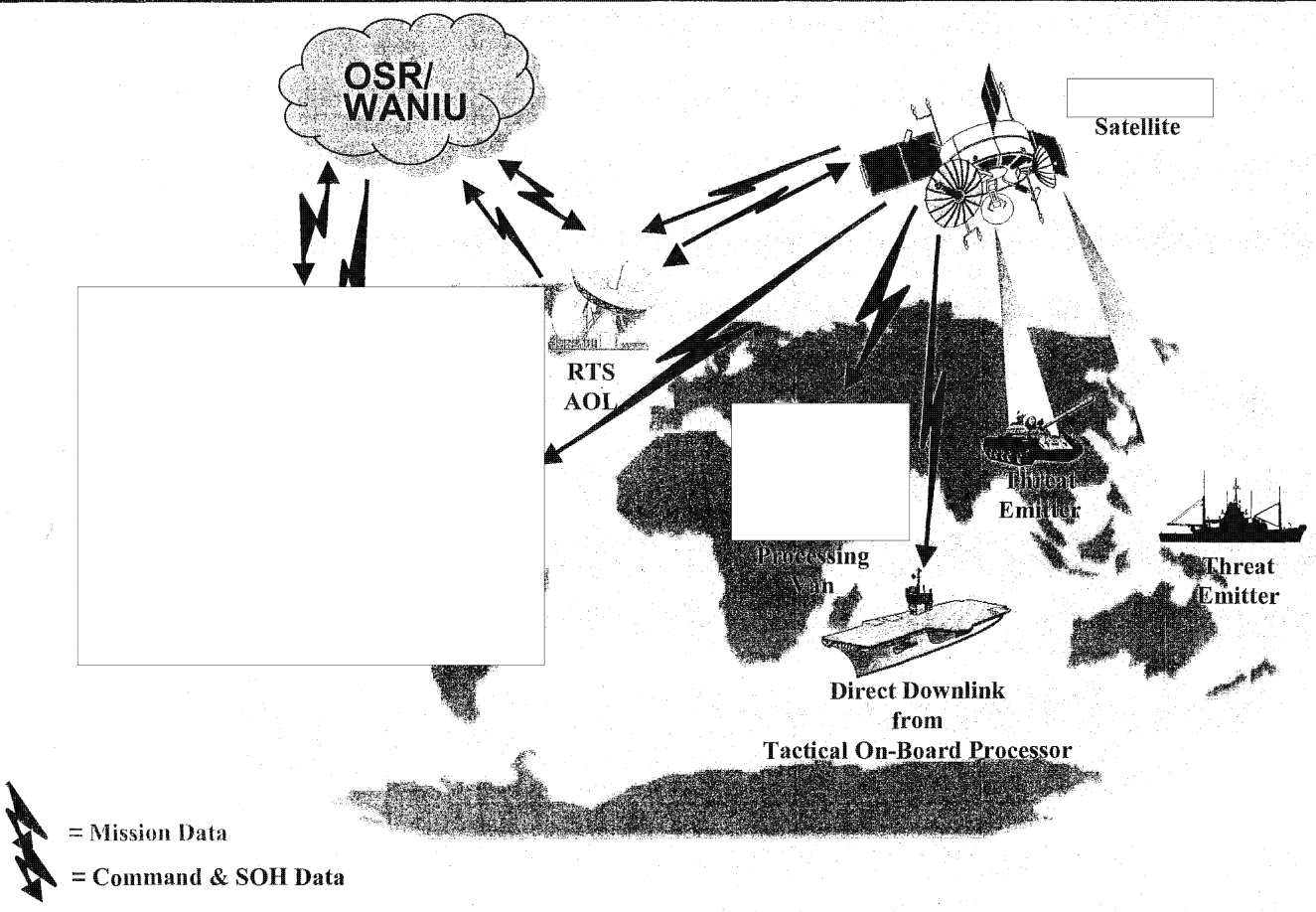
7300 Mission Operations



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Farrah Payload Key Functions

- Frequency Coverage
  - 1 to 18 GHz in 8 Bands (F5 0.8 to 18GHz in 9 Bands)
- Geolocation Mission
  - Pulsed and CW Emitters
- Omni Mission
  - Pulsed and CW Emitters
- Technical Intelligence Mission
  - Directed search using handovers from search receivers
  - Pulse and CW Processing
  - Predetection outputs from Bandwidth Compressor or Spectrum Analysis Modes
- Polarization Analysis Mission (8 bands, 2 to 18 GHz)
  - Phase and Amplitude Measurements- Pulse and CW
  - Directed search using Handovers
- [redacted] 25X1
- [redacted]

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Mission 7300 On-Orbit Spacecraft

	Farrah I	Farrah II
Status	Transpond Only	Transpond Only
Launch	11 May 82	25 June 84
Altitude	383 nm	
Inclination	96 deg	
Receivers	Direction Finding (Pulse & CW) Omni (Pulse & CW) Technical Intelligence (TI)	
Frequencies	2 –18 GHz	
Daily Tasking	130 min	50 min

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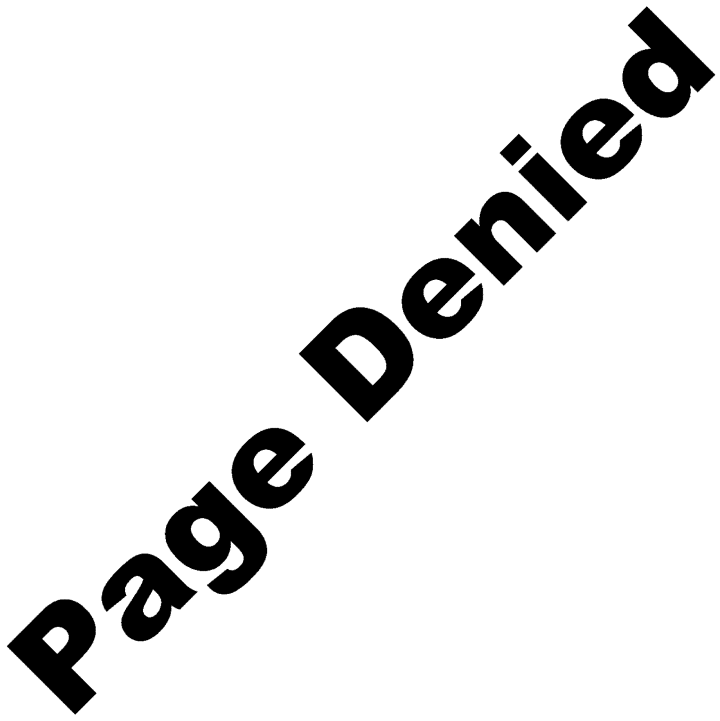

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Missions Matched to Receivers

	Missions				
Receivers	General Search	Direct Search	Mainbeam Technical Indulgence	COMINT Mapping/ Tip Off	
DF Pulse	X	X			
DF CW	X	X		X	
CR (F5)	X	X		X	
Omni Pulse	X		X		
Omni CW	X		X		
PA Pulse/CW		X	X		
TI Pulse/CW		X	X		
WDR (F5)		X	X		
Pulse/CW					
	X	X		X	

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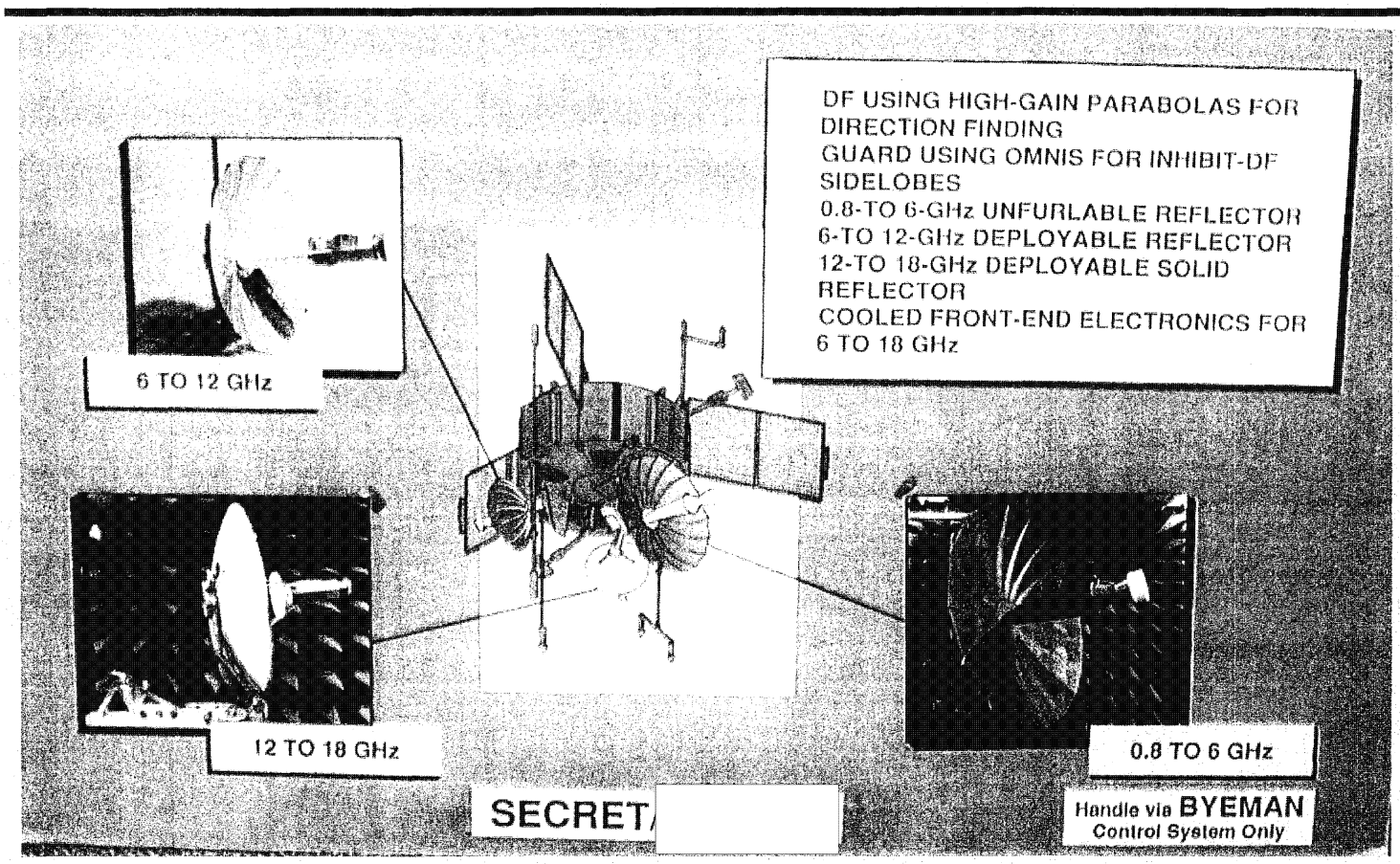
DF/Guard Antennas



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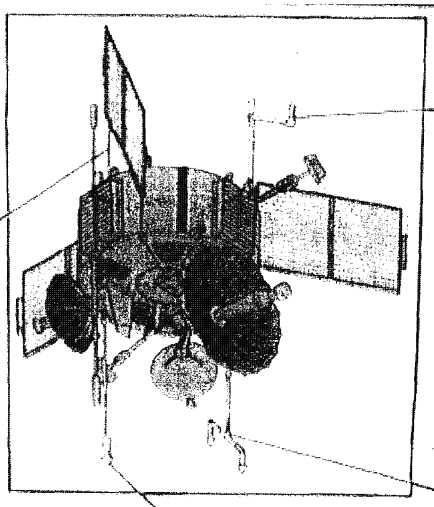
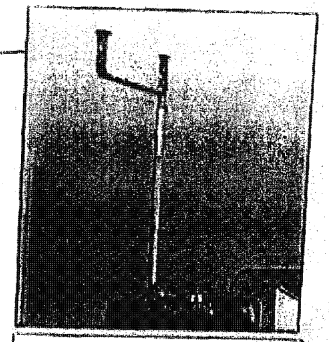
Omni/C3 Antennas

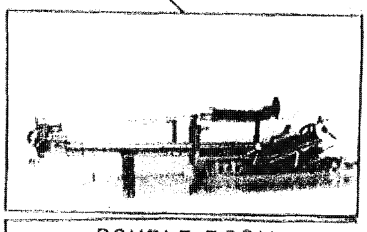


SINGLE BOOM
12-TO 18-GHz / SGLS
COLLECT C³



SINGLE BOOM
0.8 TO 6 GHz / 6 TO 12 GHz

- BROAD BEAMWIDTH OMNIS FOR DF SIDELOBE SUPPRESSION
- SINGLE AND DOUBLE BOOM ASSEMBLIES
- COOLED FRONT-END ELECTRONICS FOR 6 TO 18 GHz



DOUBLE BOOM
12-TO 18-GHz / SGLS
COLLECT C³

DOUBLE BOOM
0.8 TO 6 GHz / 6 TO 12 GHz

Handle via **BYEMAN**
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7300 Payload Group

By [redacted] 25X1

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7300 Payload Group

- Operational Support
- Payload Support
  - Anomaly Resolution
  - Analyze Health of On-board Tape Recorders
  - Performs Health Checks by analyzing On-board Test Signal Generator (TSG) data
- Calibration Group

  Note: Analyses of Cal and TSG data detects anomalies with known signals before analyst detect them with environmental data.
- [redacted] 25X1
- COMINT Recognizer (CR)

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7300 Payload Labs

- Payload Lab
  - EM Payload Panel
  - Analog Station
  - TI Analog Station
- [redacted] Lab
- CROSS Lab (COMINT Recognizer)

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