Design Structure Matrix (DSM)

Level I	Level II	Index	Receiving Task	Validate Task	Plan Mission	Forward Task	Maintaining Time Sync	Managing Power	Managing Relative Position	Monitoring Performance	Updating Software	Configuring Camera Mode	Calibrating Camera	Capturing Image	Logging Imagery	Ingest Imagery	Perform Quality Check	Execute Algorithm	Generate IDs & Metadata	Manage On-Board Storage Cap.	Selecting Route Path	Establishing Inter-Satellite Link	Forwarding Metadata	Acknowledge Transmission Receipt	Verifying Data Integrity	Establish Ground Station Connection	Encrypt Metadata	Transmit Metadata
Mission Planning & Tasking	Recieving Task	01	■	f		f																i			f	i		
	Validate Task	02	i	■	f																							
	Plan Mission	03		i	■		i		f		f										f							
	Forward Task	04	i			■															i							
Health & Status Monitoring	Maintaining Time Sync	05		f			■											f									f	
	Managing Power	06						■	b			i	i	i				i										
	Managing Relative Position	07		i				b	■																			
	Monitoring Performance	08								■	f							i		i								
	Updating Software	09								i	■																	
Aquiring Data	Configuring Camera Mode	10		i			f					■	i	f														
	Calibrating Camera	11					f					f	■	f		f												
	Capturing Imagery	12					f					i	i	■	f	f												
	Logging Imagery	13					f							i	■	f		f										
Onboard Processing	Ingest Imagery	14												i	i	■	f	f										
	Perform Image Quality Check	15											i			i	■											
	Execute Algorithm	16					f		f							i		■	f	f								
	Generate IDs & Metadata	17					i											i	■	f			f					f
	Manage On-Board Storage Capacity	18								f								i	i	■								
Satellite Networking / Routing	Selecting Route Path	19		i																	■	f	f	i	i	f		
	Establishing Inter-Satellite Link	20	f				f														i	■	f		i			
	Forwarding Metadata	21																	i			i	■	b				f
	Acknowledge Transmission Receipt	22																			f		b	■	i			
	Verifying Data Integrity	23	i																		f	f		f	■			
Downlinking	Establishing Ground Station Connection	24	f																			i				■	i	
	Encrypt Metadata	25					i																			f	■	f
	Transmit Metadata	26																i						i			i	■