NASA MSFC Mission Operations Laboratory

Introduction to Ground Data Service Support

First Contact Package









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- Use POIC Website.

Where Does POIC Fit?

Payload Developers and Principal Investigators

- Defines standard ground support service needs as defined in SSP 50305 POIC Capabilities Document
- Defines ground system operating locations
- Defines unique ground support needs

ISS Research Integration Office (OZ)

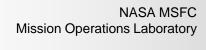
- Development of the Payload Integration Agreement (PIA) Letter's Ground Data Service Section
- Negotiates funding for non-standard unique ground support requirements

Ground Support Requirements Team and POIC Customer Service Team

- Coordinate PIA assessments
- Coordinate detailed support services via GDS Blankbook
- Integrates GDS requirements for implementation, test, and certification
- One stop POC for PD/PI for GDS requirements (all mission phases)

POIC Ground Support Operations

- Monitors and configures GDS in support of all customer provided service.
- Troubleshoots and restores service as required.
- Help Desk Support.
- POIC Service Training















Ground Data Service Support

- Who is involved in the process?
 - The HOSC Ground Data Services (GDS) Customer Service Team (CST)
 - The Payload Integration Manager (PIM)
 - The PD/PI
- Documentation:
 - Payload Integration Agreement (PIA) Letter Ground Data Services Section
 - SSP 50305, POIC Capabilities Document
- What is required:
 - Identification of all operating locations
 - Identification of all operating location points-of-contact
 - Identification of general GDS needs
 - ▲ Telemetry/Command

 - → Video
 - → etc.
 - Unique GDS requirements









Ground Support Requirements Team (GSRT)

- Who is involved in the process?
 - The Payload Integration Manager (PIM)
 - The PD/PI
- Documentation:
 - Payload Integration Agreement (PIA) Letter Ground Data Services Section Letter
- What is required:
 - Identification of all operating locations
 - Identification of video, voice, telemetry, and command services
 - Identification of unique GDS needs
- Results:
 - Concurs with standard GDS requests in PIA Letter.
 - Provide cost and schedule impacts to OZ for reconciliation of unique requirements.
 - Documents support commitment in the ISS Program Requirements Document (PRD)











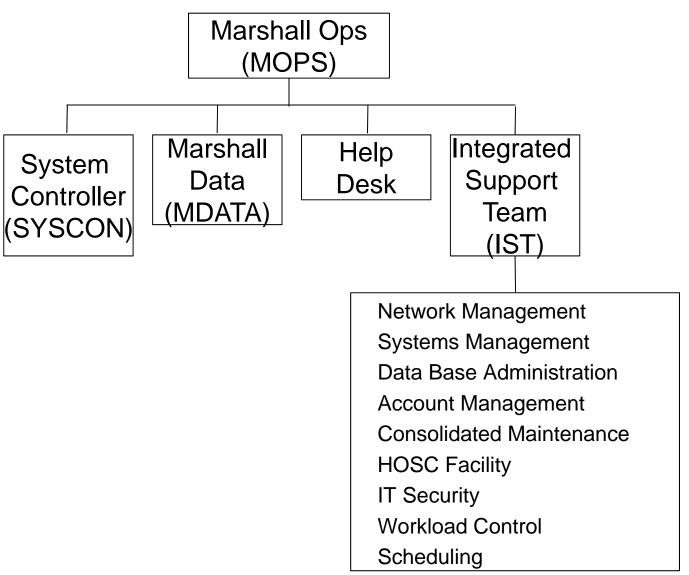
HOSC Customer Service Team (CST)

- The HOSC Customer Service Team is responsible for support the development of your ground data service (GDS) needs
 - Provides detailed explanation of the Payload Operations Integration Center's (POIC) ground services.

 - Command
 - ▲ Telemetry
 - ▲ Information Management Services (PIMS/OCRs).
 - → Payload Planning services (User ISS resource requirements, Data flow plans, etc.)
 - Works with the customer to provide a "best fit" set of POIC ground support services that satisfy the customer's ground operations concept.
 - Assist the customer with documenting their GDS needs in the appropriate Program Level and POIC requirement documents.
 - ▲ Payload Integration Agreement (PIA) Letter
 - ▲ Ground Data Service Blank Book
 - Provides cost impacts to optional services or other unique customer GDS needs.
 - Coordinates the creation and integration of all the customer GDS needs with customer's host support facilities.
 - Ensures Payload Operations team training on POIC GDS.
- Provides a POIC single point-of-contact for GDS needs for the full life cycle of the experiment's operations.
 - Pre-mission (flight readiness)
 - Mission (GDS need changes)
 - Post-mission (access to stored data service)

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POIC Ground Operations Support Team



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Ground Operations Support Team

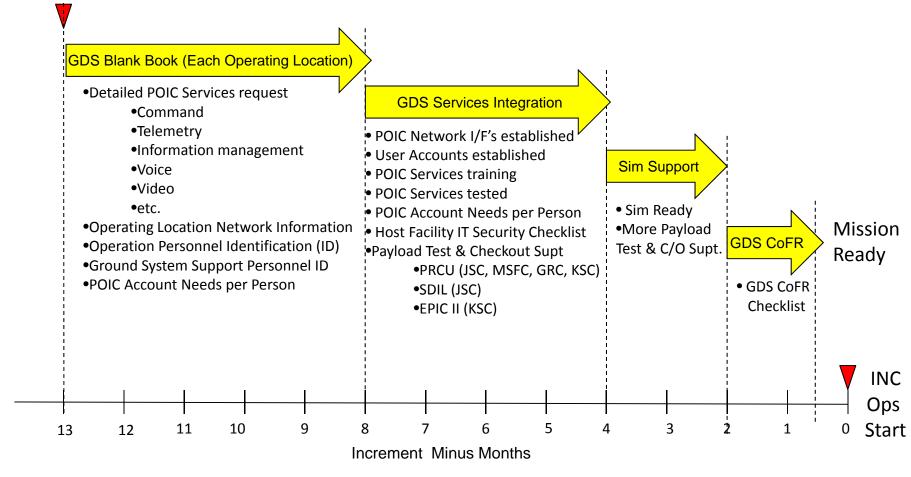
- Marshall Ops (MOPS)
 - Management of ground operation support to ensure all service are operating per identified service agreements.
 - Manages the GDS Call for Flight Readiness (CoFR) activities.
- Systems Controller (SYSCON)
 - Real time configuration and control of POIC GDS computer services to include troubleshooting and restoration of services as required for all mission, simulation, and test activities
- Marshall Data (MDATA)
 - Real time configuration and control of POIC data, voice, and video distribution services to include troubleshooting and restoration of services as required for all mission, simulation, and test activities.
- Help Desk
 - Provides customer support for customer POIC to user systems interface problems.

GDS Integration Timeline

Signed PIA Letter Ground Data Services

NOTE:

PIA Identified Optional Services support template varies based on complexity of need.













GDS CoFR Package

- GDS CoFR Checklist Package distributed to all payload operating locations by the POIC Increment Operations Lead.
 - Package identifies services requiring CoFR
 - Package identified CoFR testing certification methodology
- POIC provides access to services 24 x 7 to support CoFR activity.
- Each operating location certifies GDS services by signing CoFR checklist.

PD Team Responsibilities

- Support to GDS HOSC Customer Service Team Rep to identify ground support service needs and GDS Blank Book completion for each ground operations location.
- GDS Support from payload's host operating location(s):
 - Network management
 - Systems management
 - Security
 - Ground services testing
- Support GDS CoFR activity from each supported operating locations.
- Notify POIC of any ground support or payload operations personnel changes









Contact Information

- Ground Systems Requirements Team (GSRT)
 - Philip Cauthen 256-544-4204 philip.cauthen@nasa.gov
- POIC Customer Service Team
 - Nick Bornas 256-544-5235 <u>nick.bornas@nasa.gov</u>
 - Dennis Botts 256-544-9363 <u>dennis.botts@nasa.gov</u>
 - Chris Reid 256-544-6880 christopher.g.reid@nasa.gov
 - Karl Roth 256-544-3539 karl.roth@nasa.gov
- POIC Ground OperationsLeads (Marshall Ops)
 - Hal Greenlee 256.544.6140 hal.greenlee@nasa.gov
 - Neal Mahone 256-544-2157 neal.mahone@nasa.gov
 - Gary Dempsey 256.544.5113 gary.l.dempsey@nasa.gov
- POIC Help Desk: 256-544-5066



Useful Website

- **HOSC Administrative Portal**
- https://mgssp.hadm.msfc.nasa.gov
 - Requires HOSC Account to access (standard service to all payload ops and support personnel as requested through the GDS Blank Book.
 - Access to POIC Services client applications
 - **▲** VPN
 - ▲ Remote IVoDS
 - ▲ EHS Web
 - **▲** TReK
 - **▲** EPC
 - Network Configuration requirements in support of POIC services
 - POIC service training materials
 - GDS Documentation
 - Integrated Schedules
 - HOSC Resource Schedules
 - HOSC Problem Reports.





