Ground System Overview

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Overview Outline

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Key Goals

Deliver reliable GRB alerts rapidly to the community

- ❑ Initial locations will be delivered within seconds of the burst
- ❑ Improved locations will be delivered within 100 seconds

Deliver GRB Data rapidly to the community in standard (FITS) formats

Systematically observe GRB afterglows

- ❑ Revise observing timeline based on burst characteristics
- ❑ Community will participate in the scientific examination of each afterglow

Maintain health & safety of the spacecraft and instruments

Provide tools for the scientific analysis of Swift data

Parts of the Ground System

System	Provider	Role	Comments
MOC	PSU	Operate the observatory; science planning	
Ground stations	ASI & USN	Communications with observatory	USN only during 1st month
TDRSS/DAS	NASA	"instant" messaging	
GCN	NASA	Distribution of messages	Existing system
SDC	NASA	Science data processing; quick-look data	
SSC	NASA	User support	
HEASARC UKSSDC ISAC-ASDC	NASA UL ASI	Data & software archive and distribution	

Architecture
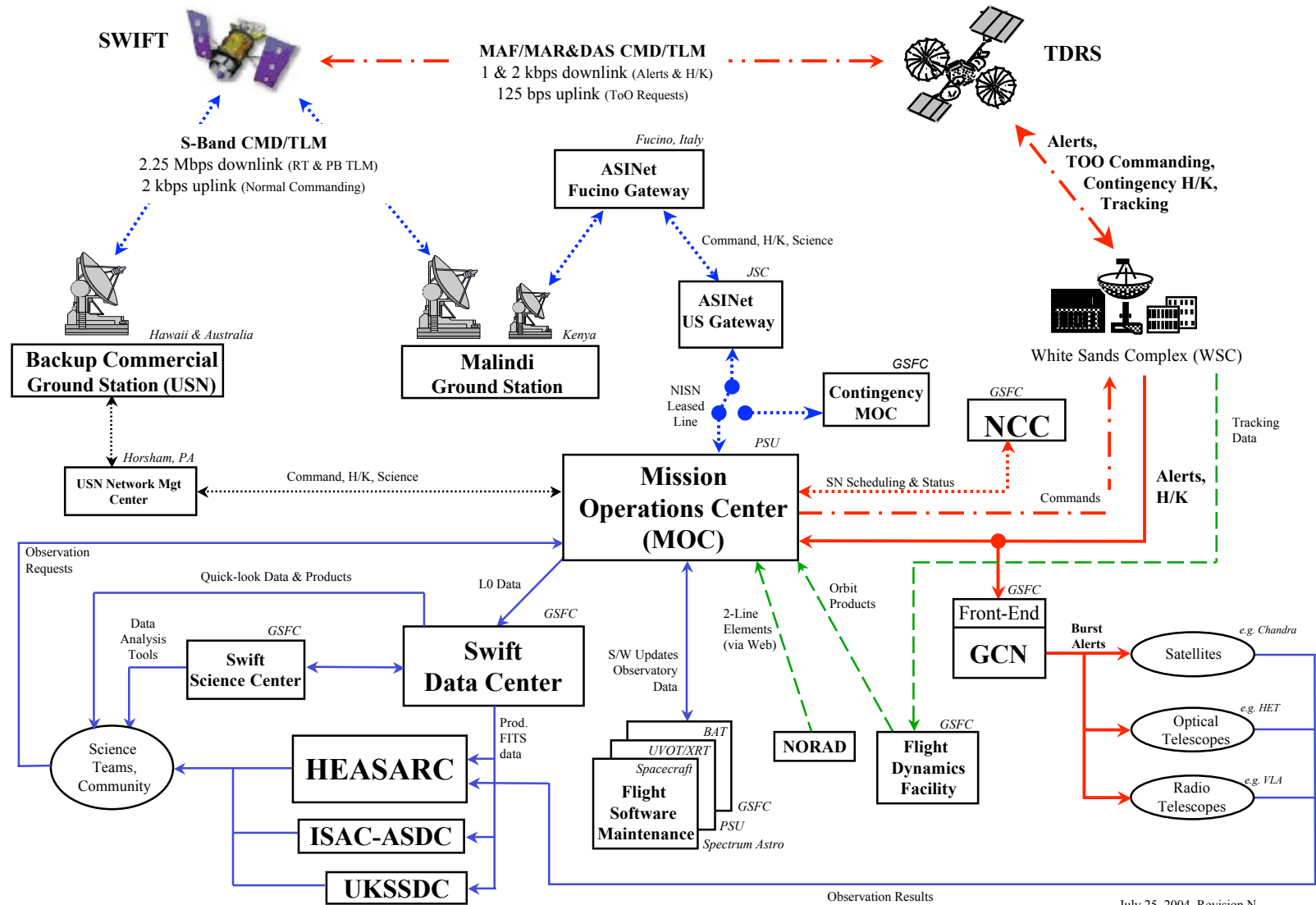
Contact Points

The following contact points should be used to contact the elements of the Swift ground system.

- ❑ swift.gsfc.nasa.gov
    - Science analysis
    - Science data processing
    - Science results
    - Responding to NRAs
- ❑ PSU URL #1 (TBD)
    - Requesting new science observations (Targets of Opportunity)
- ❑ PSU URL #2 (TBD)
    - Planned observations with Swift for next ~7 days

Current Status

All the facilities and data connections are ready to support the mission.

Flight operations team is ready.

Science analysis software is nearing completion.

❑ Additional details will be provided in following talks.

Data distribution process will be ready for launch.

Ground system is looking forward to next month's launch.