

National Aeronautics and Space Administration



Goddard Communications Center (GCC)

S. Hoge
FDF Operations Director
GSFC
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fdf.gsfc.nasa.gov

Flight Dynamics Facility
NAVIGATION & MISSION DESIGN BRANCH
NASA GSFC



Goddard Communications Center



- GCC is NOT the network communications center managed by Code 700 at GSFC
- The GCC is a Communications hub at GSFC that provides
 - Distribution of briefing messages, ISI, NAMs to the NASA networks and missions
 - Acts as a conduit for Two Line Elements, B3 tracking, Break-up messages and other messages from USSTRATCOM for approved ODR customers
 - Some users receive real-time elset updates (i.e. for launches)
- Up through FY12, funding and management of the GCC was under the NASA Space Network (SN)
- Beginning in FY13 GCC will no longer be funded entirely by the NASA SN
 - Funding will need to come from users
 - Largest user of GCC is USSTRATCOM
 - Accounts for 95% of messages
 - FDF will be managing the GCC beginning in FY13

Product Breakout - USSTRATCOM



Data records are as of March 8, 2011		USSTRATCOM Products		
Products/Data	Final Destination	Approved ODRs	Yearly Average Of Data received	Percent of Total Messages
P-3 Airframe	Wallops	NA	78	0.0264239%
P-3 Airflow	Wallops	NA	60	0.0203261%
Aviation Safety	Wallops	NA	402	0.1361849%
Comnavairlant	Wallops	NA	61	0.0206649%
Comnavairwar	Wallops	NA	259	0.0877410%
Radiation Request	Wallops	NA	597	0.2022447%
Vacapes	Wallops	NA	117	0.0396359%
Sat Catalog	Space Track Web Site; GSFC Liaison	Yes	414	0.1402501%
Satellite Decay Messages	Space Track Web Site; GSFC Liaison, NASA/GSFC CA Team	Yes	826	0.2798226%
ILAA	Space Track Web Site; GSFC Liaison, GSFC FDF List, NOAA List, NASA Wallops, & other NASA organizations	NA	114	0.0386196%
ILAM	Space Track Web Site; GSFC Liaison, GSFC FDF List, NOAA List, NASA Wallops, & other NASA organizations	NA	112	0.0379421%
TIP	Space Track Web Site; NOAA, NASA HQs, NASA GSFC Code 570	Yes	659	0.2232483%
TLES	Space Track Web-site, GSFC/Liaison, , JPL, GSFC FDF, & other Individual projects through approved ODRs,	Yes	249,250	84.44%
NOAA, DMSP, etc. related TLES	NOAA	Yes	21,125	7.1564805%
ISS TLES	FDF	NA	4,542	1.5386856%
B3 Tracking Observations	JPL, GSFC FDF (gdro & ggfd)	Yes	1307	0.4427702%
Bevel/4 line elements	NOAA –Suitland Md., Kirtland, Maui & NASA/ GSFC	Yes	612	0.2073262%
Break-up Messages	NASA/GSFC CA Team	Yes	2	0.0006775%
Space Info	Space Info	NA	112	0.0379421%
Total USSTRAT messages			280,649	
Total comm center messages			295,187	

Product Breakout - NASA



Data records are as of March 16, 2011		NASA Products		
Products/Data	NASA Organization Product Owner /Originator	Final Destination	Yearly Average Of Data received	Percent of Total Messages
Orbital Elements (TDRS Messages)	GSFC/FDF	1CACS =(GSFC/GFDF, RUCEAW/1CACS-Cheyne Mt & other NASA) 22SOPS = (22SOPS Schriever AFB, IRO Onizuka MITs, Kirtland AF,& other NASA) MIT- 1CACS = (Boeing, BAH, NASA/GSFC) Orbital- NASA/GSFC	8,279	2.80%
ISIs for ISS	GSFC/NOM	Shuttle – Other Military facilities =(U.S army.mil , Patrick L, Kirtland, US Space Ops); NASA facilities =(WSC, KSC, GSFC ,JSC,MSFC);	93	0.03%
ISIs for other Projects	GSFC/NOM	ATLAS, Delta, FDF, specific missions as required	243	0.08%
Soyuz TLEs	GSFC/FDF	VHF sites	101	0.03%
TDRS TLEs	GSFC/FDF	USSTRATCOM , & NASA	470	0.16%
RFI	GSFC/SMM	Patrick AFB ,STRATCOM, Honolulu, Dept of State, National HQ'sFAA Wash DC, Dept of Commerce NTIA Wash DC, Ft Mead, NAVCEN Alexandria VA, US and NASA Wash	10	0.0034%
Briefing Messages	GSFC Mission NOMS	Schriever AFB, Patrick AFB, Navy.MIL, Vandenberg AFB, NASA/GSFC, WSC, ULA,, Honeywell & ITT	405	0.14%
OPN Messages	GSFC Mission NOMS	Schriever AFB, Patrick AFB, Navy.MIL, Vandenberg AFB, NASA/GSFC, WSC, ULA,, Honeywell & ITT	45	0.02%
IRVs	Wallops	AGO, MILa, Merritt island and wallops	4892	1.66%
		Total NASA Messages	14,538	
		Total Comm Center Messages	295,187	

Plan Forward



- Request for funding made to USSTRATCOM
 - Funding agreement complete by August

- New task for GCC support to begin October 1
 - Under the FDSS contract that supports the FDF
 - Transition status meetings with current GCC support contractor being held monthly

- Contingency plan if funding not forthcoming
 - GCC support terminated
 - Provide assistance to GCC customers to identify alternative means of getting information