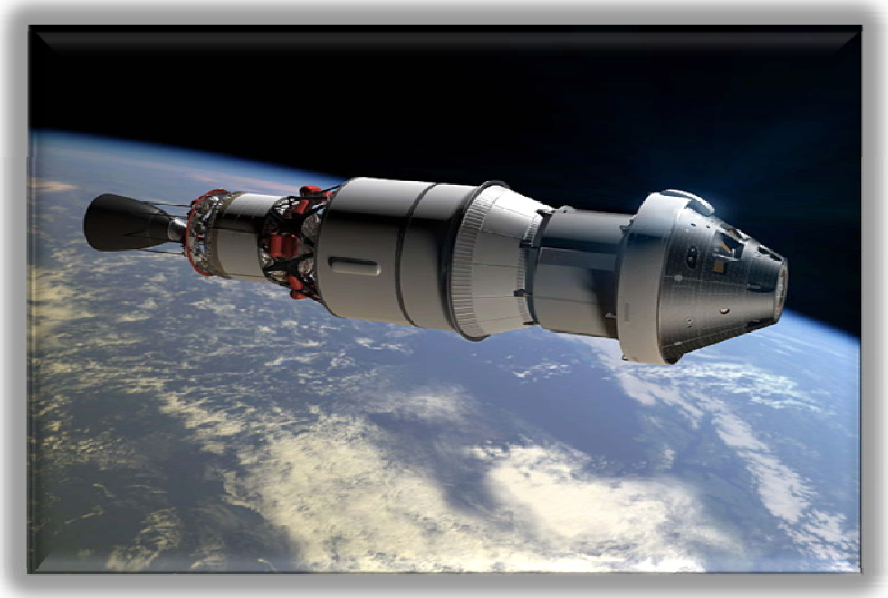
Exploration Flight Test (EFT-1) Database Working Group



04/16/12

M. Calhoun/GSFC

Agenda

- Support Identifier (Supiden)
  - Naming Convention Discussion
- Set-up Customer Database
- Set-up Service Specification Codes (SSC)
  - S-Band Single Access Forward (SSAF)/ S-Band Single Access Return (SSAR)/Track – Will be provided
- Reference Documentation
- Backup Slides

Support Identifier (Supiden)

- **Should the supiden series start with EFT-1 or with the EM Flights?**
  - **Series examples:**
    - **Space Transportation System (STS) was 2000 series**
      - **STS-133 (2135), STS-134 (2134), STS-135 (2135)**
    - **International Space Station (ISS)/Visiting Vehicles (VV) are in the 8000 series**
      - **ATV -3 (8003), SpaceX (8006), etc..,**
- **Supiden:**
    - **EFT-1**
    - **Launch Abort System (LAS)**
    - **Exploration Mission -1 (EM-1)**
    - **EM-2**

Customer Database Form

- Customer platform parameters must be specified before any other data can be specified
- Form to be populated:
  - Will be provided

Service Specification Code (SSC) Forms

- For each service type to be scheduled must have at least one SSC specified
  - SSAF
  - SSAR
  - Track
- Forms to be populated:
  - Will be provided

Reference Documentation

- Radio Frequency Interface Control Document (RFICD) Between the Orion-1 Flight Test (OFT-1) and the Space Network (SN) dated 05/13/11
- Multi-Purpose Crew Vehicle (MPCV)/EFT-1 Mission Support Requirements Document (MSRD) Rev A
- Space Network User's Guide (SNUG)

Backup Slides

Customer Database Form - example

Support Parameters for an SN Customer:

1. SIC (4-digit decimal) XXXX
2. Support Name (up to 24 characters) EFT-1
3. VIC (2-digit decimal) 01
4. VID (3-digit octal) 000
5. SIC Type (Normal Orbiting, PES, TDRS, Test) ... Normal Orbiting
6. Customer Class (Full or Baseline Support) ..... Full
7. PN Code for K-band (2-digit decimal) ..... N/A
8. PN Code for S-band (2-digit decimal) 25
9. Service Types (MAF, SSAR-N, etc.) ..... SSAF-N, SSAR-N
10. Min TSW Duration (DDD/HHMMSS) 000/000000
11. Max TSW Duration (DDD/HHMMSS) 001/000000
12. Default Freeze Interval (DDD/HHMMSS) 028/000000
13. Default Waitlist Expiration (DDD/HHMMSS) 000/000500
14. Minimum Gap Between Consecutive Events (DDD/HHMMSS; where 000/000000 means the events can overlap):
    - Between SA and SA Events 000/000000
    - Between MA and MA Events 000/000000
    - Between SA and MA Events 000/000000
    - Between MA and SA Events 000/000000
15. SUPIDEN's (ANNNNAA) ..... MXXXXMS, MxxxxEE, MxxxxSM
16. Valid TDRS Names for each SUPIDEN (AAA) ..... 171, TDW, TDE, TDS, 275
17. User ID's (AAAA) ..... Jxx
18. User Passwords for each User ID (AAAA) ISS7
19. If Customer Submits Scheduling Messages in TCP/IP Format, then:
    - a. Source IP Addresses .....
    - b. Logical Destination Names (<=16 char) to Receive USM's ..... Jxxx
    - c. Primary Logical Destination Name (<=16 char) to Receive SRM's ..... Jxx
20. If Customer Submits Scheduling Messages in 4800-Bit-Block Format, then:
    - a. User ID's to Receive USM's .....
    - b. Primary User ID to Receive SRM's .....
21. If Customer Submits Real-Time Messages in TCP/IP Format, then Source IP Addresses ....
22. User ID's for Submitting Real-Time Messages for each SUPIDEN
23. Primary User Password for Submitting Real-Time Messages for each SUPIDEN .....
24. Primary (Default) User ID to Receive Real-Time Messages for each SUPIDEN .....
25. FTP Login Name to Send Vectors (AAAAAAAA) ... (not applicable)
26. FTP Login Password to Send Vectors (8A) ..... (not applicable)
27. User ID's to Receive DQM UPD Packets .....
28. DQM Setups:

Setup……..	#1	#2	#3
SIC……..	xxxx	xxxx	xxxx
DSID (three-digit octal)…..	xxx	xxx	xxx
Data rate (bps)……..	xkbps	xxkbps	

Frame length (bits).....9952
Sync word length (bits).....32
Sync word bit pattern (hex)……...1A CF FC 1D
Sync strategy (NNNNN)……..01100

Customer Database Form - example

29. MDM Options:

Setup	#1	#2	#3
SIC	xxxx	xxxx	
Service Type	SSAF	SSAR	
Channel			
Modified Header	N	N	N
Input is Blocked	N	N	N
MDM Blocks Output	N	N	N
One Second Time-Out	N	N	N
Clock Tracking Required	Y	N	N
Clock Clamping Required	N	N	N
CAB Required	N	N	N
Time Tag Required	N	Y	N
Internal Clock	Y	N	N

30. SIC Priority .....
31. WSC DVC Value (0, 1, 2) .....
32. WSC TDF Value (Yes, No) ..... Y
33. UIFC ID's (AAA) J08 P53