



GSFC Human Space Flight Documentation Status/Plan

04/19/12

Earl Daniel

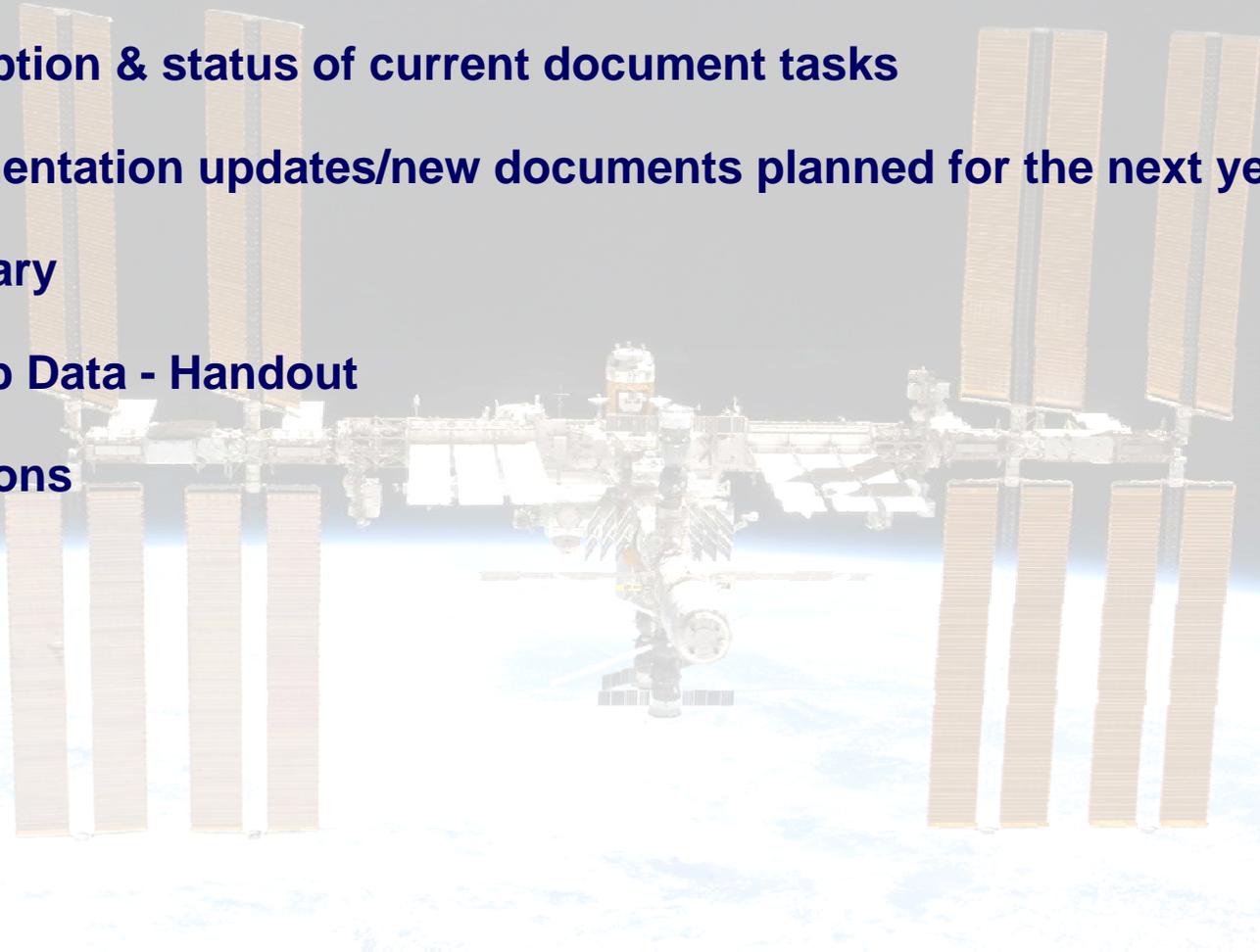




Agenda



- **Quick review of Types (levels) of Document Reviews**
- **Description & status of current document tasks**
- **Documentation updates/new documents planned for the next year**
- **Summary**
- **Backup Data - Handout**
- **Questions**





GSFC HSF Documentation Reviews



- **Team Review (1st)**
 - Cover e-mail from Book Mgr/SMM requesting review – sent to GSFC Team only
 - Electronic copy of new or updated document attached
 - Review Form attached
 - Reviewer requested to send review comments back to Book Mgr.
- **General Review (2nd)**
 - Cover e-mail from Book Mgr/SMM – sent to Integrated Network
 - Electronic copy of new or updated document attached
 - Review Form attached
 - Reviewer requested to send review comments back to Book Mgr.
 - Questions about review process should be directed to the Book Mgr.





GSFC HSF Documentation Reviews



- **CCB Review – Approval (3rd)**
 - **Cover e-mail from Documentation Specialist for Networks Integration Management Office (NIMO) – sent to Integrated Network – (Request approval for document you reviewed in General Review)**
 - **Electronic copy of new or updated document NOT attached**
 - **Review Form NOT attached**
 - **Reviewer requested to log on to GSFC Next Generation Integrated Network (NGIN) on-line database and enter review comments and/or concurrence**
 - **This is basically an approval cycle prior to publishing**
 - **To open an NGIN account, call Bryan Sizemore 301-286-4090 or contact him by e-mail (Bryan.Sizemore@nasa.gov)**
 - **For questions about GSFC Code 450.1 Configuration Control Board (CCB) review/approval process, contact NIMO Chief Scott Greatorex at 301-286-6354 (scott.a.greatorex@nasa.gov) or ASRC Documentation Specialist Steven B. Testoff at 301-286-6538 (steven.b.testoff@nasa.gov)**





GSFC HSF Documentation Status



- **Documents published since the last Network Support Group (NSG) (October 20, 2011)**
 - **Freeze Exemption Request (FER) Form**
 - Form updated to remove Space Shuttle (STS), include International Space Station (ISS), Visiting Vehicles (VV), and Robotics, and add NIM in approval box. This form is available (with instructions) via NGIN. Examples of the revised form are included in the handout (backup data) and in the current update to the Configuration Management freeze plan
 - **Tracking and Data Relay Satellite System (TDRSS) Network Operations Support Plan (TNOSP) for the International Space Station (ISS) [ISS TNOSP for short], 450-TNOSP-ISS, Rev1**
 - This Revision incorporates changes such as the following: delete coverage of AFSCN RTS support, include WSC Test and Scheduling and notification procedure, and add new voice loops ISS TN COORD 2 and ISS SITE COORD 2 (TEST), removes Space Shuttle references where applicable, changes description of construction details to specify that the ISS is now completely assembled, and changes Wallops to WGS in lieu of WPS





GSFC HSF Documentation Status (cont'd)



- Documents published since the last NSG (October 19, 2011) (cont'd)
 - ISS TNOSP, SpaceX Dragon Annex; 450-TNOSP-ISS, Dragon Annex, Revision 1, DCN 001
 - This DCN included updates to figures for the Integrated Communications Overview (1-6) and the Dragon S/C Communications Links (6-1), updated the e-mail addresses in table 8-1, added coverage of the new 8 Kbps data rate, updated control numbers for referenced documents, updated the television operations description, and updated the description of the Demo 2 flight objectives
 - ISS TNOSP, Automated Transfer Vehicle Annex; 450-TNOSP-ISS, ATV Annex, Revision 1, **Working Copy**
 - This **Working Copy** was authorized to cover changes in the equipment description through the launch period, or until the formal document is published. This document included updates to specify the next mission is ATV-3, add new figures to show cut-away views of the ATV and antenna locations on the S/C, update the discussion on C-band Radar support to specify contingency support, update the communications overview diagram, add Communications Service Office (CSO) as appropriate, and update description of NISN support, update voice callsign table, update FDF support description, and add new Overview diagram of MCC-H to ATV-CC Interface



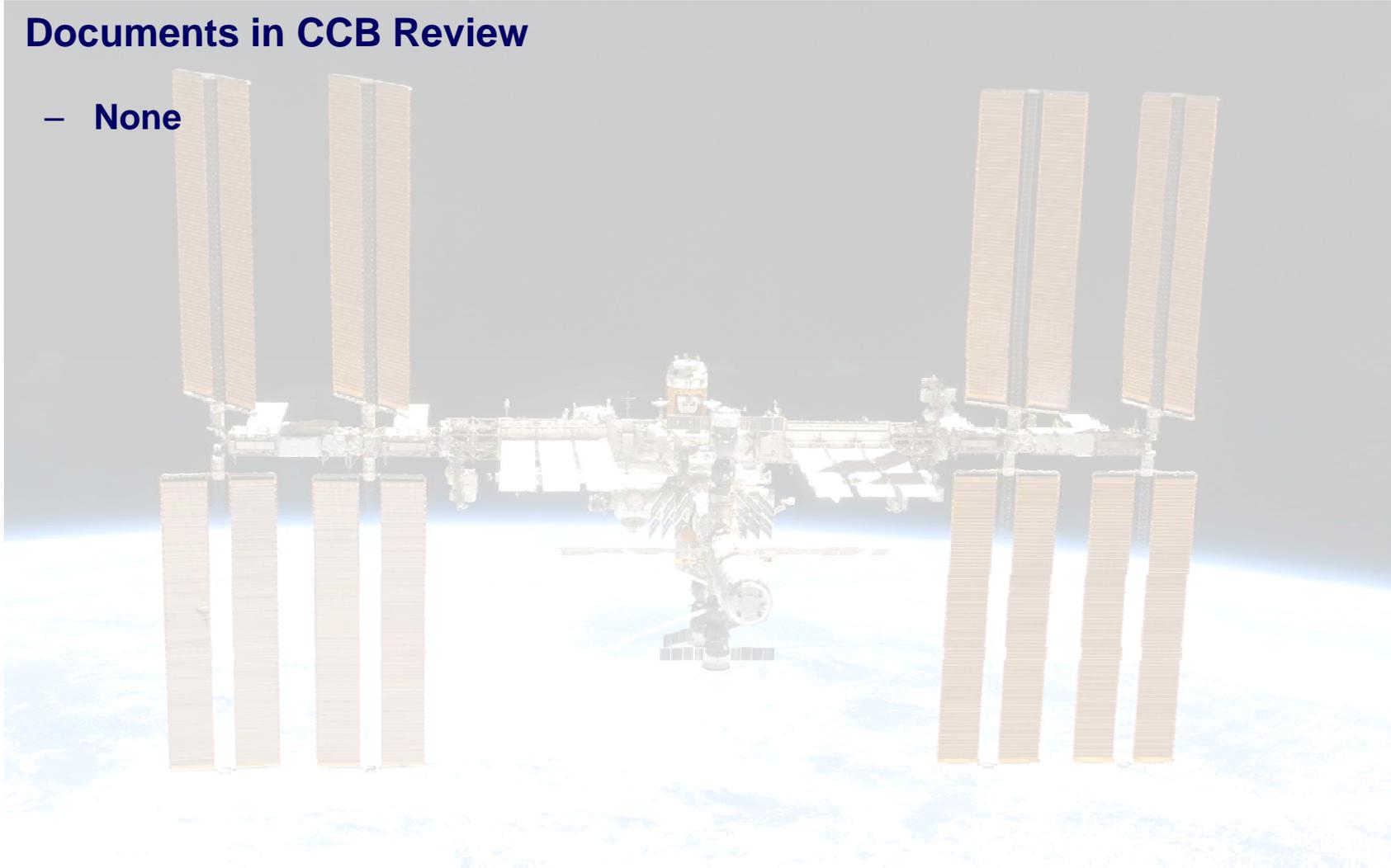


GSFC HSF Documentation Status (cont'd)



- **Documents in CCB Review**

- **None**





GSFC HSF Documentation Status (cont'd)



- **Documents in General Review**

- **Very-High Frequency Voice Communications Support Annex to the ISS TNOSP, 450-TNOSP-ISS, VHF Annex, Revision 1**
 - This Revision includes changing Ground Network (GN) to Near Earth Network (NEN), where appropriate, delete old terms such as ICOM, add mention of new voice loop ISS SITE COORD 2, update the VHF station scheduling support discussion, remove ANTC data, add Network Manager to point of contact list, update contact phone numbers, add 20 degree AOS/LOS for WSC, update ISS Assembly illustration, update WGS, WSC, and DFRC station readiness tests, delete coverage of BCTC, update post-pass briefing, update list of test equipment, and revise VHF support summary form. Examples of the updated VHF-1 and VHF-2 forms are included in the annex and instructions on how to obtain electronic copies from NGIN. Copies of the revised forms are included in the handout backup material. (This is the Second General Review for this document. Rev 1 does not include new antenna)



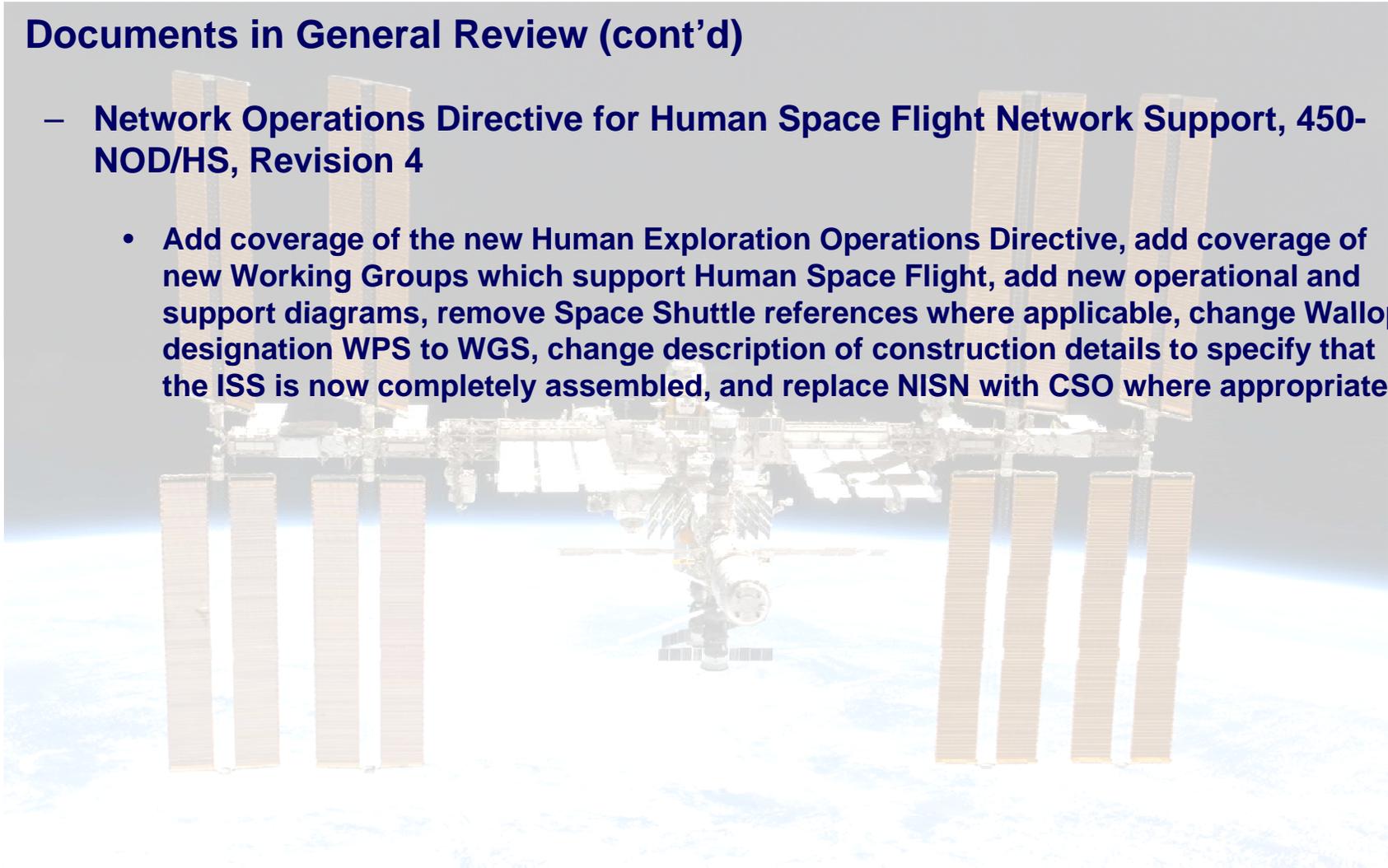
GSFC HSF Documentation Status (cont'd)



- **Documents in General Review (cont'd)**

- **Network Operations Directive for Human Space Flight Network Support, 450-NOD/HS, Revision 4**

- **Add coverage of the new Human Exploration Operations Directive, add coverage of new Working Groups which support Human Space Flight, add new operational and support diagrams, remove Space Shuttle references where applicable, change Wallops designation WPS to WGS, change description of construction details to specify that the ISS is now completely assembled, and replace NISN with CSO where appropriate**





GSFC HSF Documentation Status (cont'd)



- **Documents in Local (Team) Review Cycle**
 - **ISS TNOSP, Cygnus Annex; 450-TNOSP-ISS, Cygnus Annex, Original**
 - Current operations support requirements for new commercial resupply Visiting Vehicle spacecraft from Orbital Sciences Corporation (OSC) for SN and NEN elements. The initial demonstration mission will occur under the Commercial Orbital Transportation Services Project. The remaining 8 pressurized cargo missions will be under the CRS Project. The vehicles will be launched from a Taurus Launch Vehicle from Wallops, and return to destructive re-entry over the Pacific Ocean
 - **ISS TNOSP, H-II Transfer Vehicle Annex; 450-TNOSP-ISS, HTV Annex, Revision 1**
 - Revision 1 to this annex incorporates such changes as: reorganize sections closer to NIMO NOSP Template, delete references to the ISS NPRD, update control numbers of referenced documents, add new Communications Overview diagram, more detailed SN support discussion to section 6, update NISN section to discuss CSO, add tables of voice and data circuits, add discussion of undocked operations, add BCC, add radar contingency call up discussion, and add new appendix with referenced documents and related web sites





GSFC HSF Documentation Status (cont'd)



- **Documents in Local (Team) Review Cycle**
 - **ISS TNOSP, Automated Transfer Vehicle Annex; 450-TNOSP-ISS, ATV Annex, Revision 1**
 - Changes include: specify next mission as ATV-3, add new figures to show cut-a-way view of ATV and locations of antennas on the S/C, update the discussion on C-band Radar support to specify contingency support, update the communications overview diagram, add Communications Service Office (CSO) as appropriate, update FDF support description, and add new Overview diagram of MCC-H to ATV-CC interface
 - **Configuration Management Freeze Policy for the Integrated Networks and Supporting Elements, 450-CMFP-HSF/ELV Revision 1**
 - Revision 1 changes the control number to reflect new collective title for robotics and expendable launch vehicles , adds a new flow diagram to support the process discussion, removes Space Shuttle data where appropriate, adds an overview diagram for typical mission communications, adds the new FER form with instructions on how to get it and how to use it, and adds NASA and contractor POC data. See handout for examples of updated FER form



GSFC HSF Documentation Status (cont'd)



- **Document updates on hold (or not started)**
 - **Network Interface Procedures for Test/Simulation Coordination and Scheduling, 450-PROC-Test/Sim, Original (rewrite of STDN No. 508.27)**
 - **M&O Manual for the ISS/Soyuz VHF A/G Communications Systems at WSC and WFF, ME-19402, Revision 1**
 - **Abbreviations/Acronyms List, 450-LIST-Abbrev/Acrnym, Revision 1**
 - **Network Operations Support Plan for the Orion Multi-purpose Crew Vehicle/Exploration Flight Test-1, Original, 450-NOSP-MPCV/EFT-1**
 - **Network Integration Center Interface Procedures, DCN 001 to Rev 1, 450-PROC-NIC**
 - **Network Integration Center Standard Operating Procedures, DCN 001 to Rev 2, 450-SOP-NIC**
 - **GSFC HSF Contingency Action Plan, DCN 001 to Original, 450-CAP-GSFC-HSF**





GSFC HSF Documentation Plan



- **Updates for the next fiscal Year**
 - **The following table lists the documents identified for updating during the next fiscal year based on priority, funding, and resources available. The up-coming review cycle is stressed, and the projected final completion date is provided. Also provided are the names of the subject matter expert assigned to each document (SMM) and the Book Manager responsible for coordination of the task**
 - **Additional backup data is provided in the hand out that includes a list of all documentation identified as Human Space Flight related, new and revised forms mentioned in this presentation, and example flow diagrams of GSFC documentation efforts and statistics**



GSFC HSF Documentation Plan (cont'd)



Document	Edition	Current Task			Remarks Book Mgr./Ops Specialist
		Start Review	Due Back	Planned Completion Date	
ISS TNOSP, ATV Annex, 450-TNOSP-ISS, ATV Annex Orig Revision 1	Jun01, 2007 T	Apr 9, 2012	May 4, 2012	Aug 3, 2012	E. Daniel/T. Russell
VHF Voice Communications Support Annex to the ISS TNOSP , 450-TNOSP-ISS, VHF Annex, Original, DCN 1 Revision 1	Sep 01, 2006 Feb 01, 2009 G	Mar 30, 2012	May 04, 2012	Jun 29, 2012	E. Daniel/K. Riley/F. Pifer
ISSTNOSP Cygnus Annex, 450-TNOSP-ISS, Cygnus Annex Original	 T	Apr91, 2012	May 4, 2012	Aug 3, 2012	E. Daniel/E. Clark
ISSTNOSP HTV Annex, 450-TNOSP-ISS, HTV Annex, Original DCN 001	Nov 01, 2011 T	Mar 19, 2012	Apr 30, 2012	Jul 31, 2012	E. Daniel/M. Calhoun
CMFP for the Integrated Network & Supporting Elements, 450-CMFP-HSF/REMS New	 T	Mar 26, 2012	Apr 27, 2012	Jul 6, 2012	E. Daniel/F. Pifer
Notes: T = GSFC HSF Team Review G = General Review Cycle C = GSFC 450.1 CCB Review ss = Supersedes Red = current effort					





GSFC HSF Documentation Plan (cont'd)



Document	Edition	Current Task			Remarks Book Mgr./Ops Specialist
		Start Review	Due Back	Planned Completion Date	
Network Operations Directorate for HSF Network Support, 450-NOD/HS, Rev 3 Revision 4	Dec 18, 2009 G	Jan 10, 2012	Apr 30, 2012	Jun 16, 2012	E. Daniel/R. Marriott
Tasks on Hold 450-PROC-NIC 450-NOSP-MPCV/EFT-1					To be scheduled
ME-19402 450-SOP-NIC					
450-PROC-Network/T-S 450-CAP-GSFC-HSF					
450-Abbrev/Acronym					
Notes: T = GSFC HSF Team Review G = General <i>Review Cycle</i> C = GSFC 450.1 CCB Review ss = Supersedes Red = current effort					





GSFC HSF Documentation Status/Plan Summary



- Presenting review dates to the network in this forum allows each element advance notice of projected document review work load and expected turnaround dates for each document during the next 12 months
- To meet projected completion dates, it will be very important to receive all suggested updates and review comments by due dates/input cutoff dates
- Tasks currently on hold, or already identified for Shuttle removal updates will be worked in between higher priority tasks as time permits
- Each document has an assigned book manager who will collect all suggested updates and review comments, coordinate incorporation of all comments, resolve any conflicts, and ready each document for Team, General, and CCB reviews (as applicable)
- The technical accuracy of each document will be ensured by an assigned subject matter expert SMM from the GSFC HSF Team
- Earl Daniel is responsible for the coordination of all GSFC HSF Documentation efforts, contact information as follows

Earl.daniel.contractor@exelisinc.com

Phone: 301-823-2560 • Fax: 301-823-2501 • Cell: 443-883-6194





Documentation (cont'd)

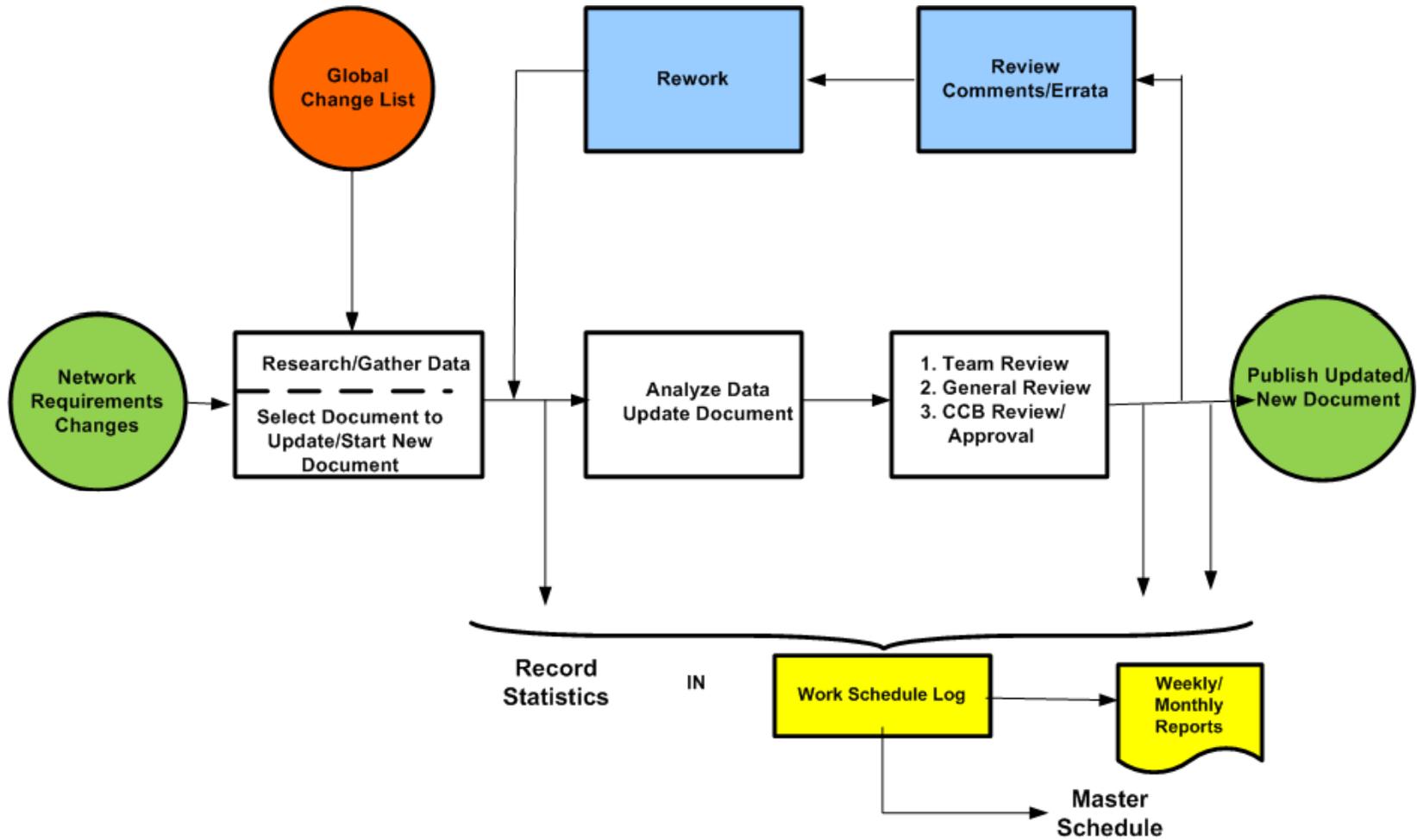


Figure 1. Documentation Update Effort Workflow





Documentation (cont'd)

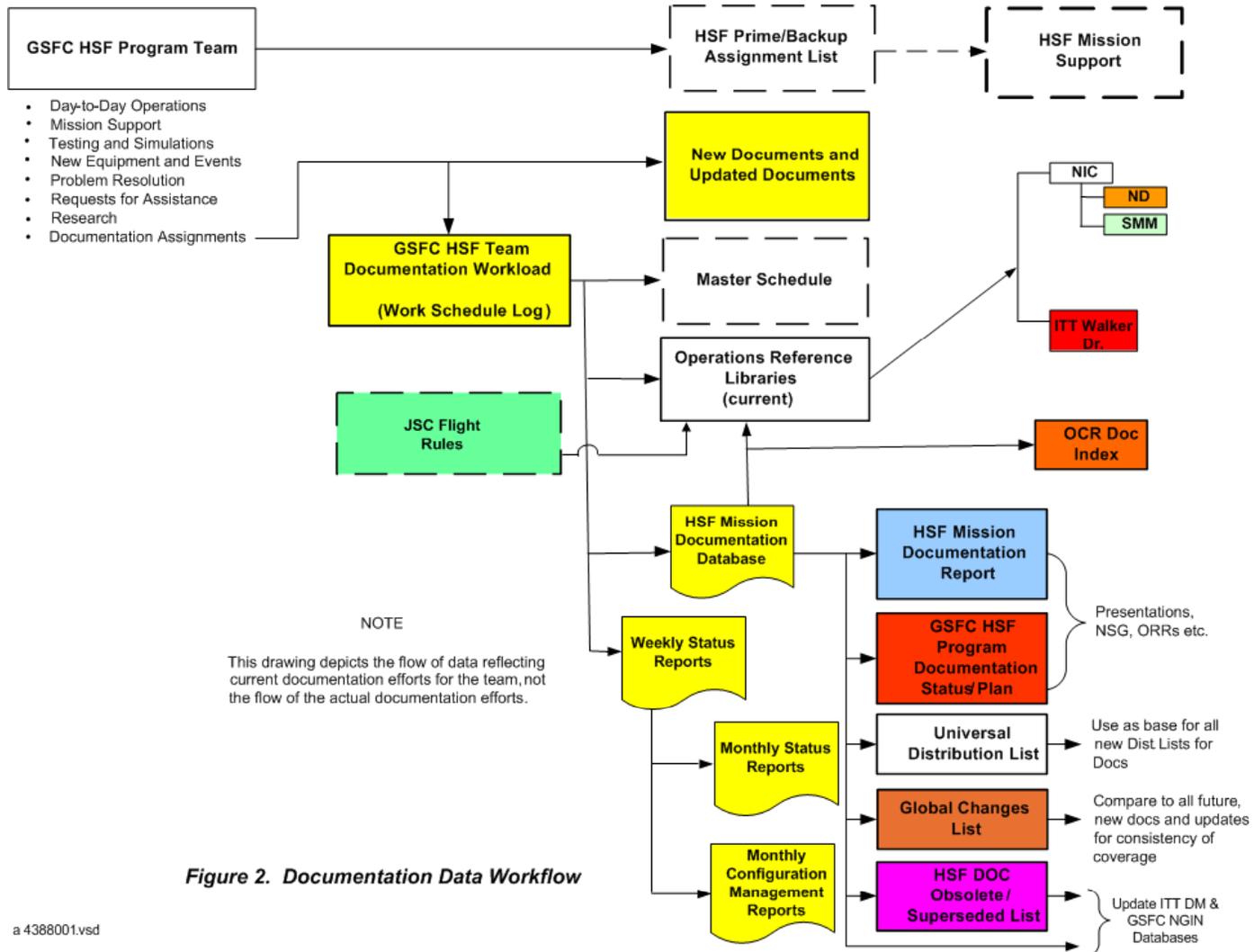


Figure 2. Documentation Data Workflow

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Questions/Requests

