



Readiness for STS-130:

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- **Team Readiness**
 - Complete, both ascent and analysis teams ready
- **Facility Readiness**
 - Complete
- **Radar Readiness**
 - NDR-C1 – GREEN
 - NDR-X3 - GREEN
 - NDR-X4 - GREEN



STS-130 SSP Flight Readiness Review Flight Software Summary



STS-130 FLIGHT SOFTWARE SUMMARY

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- **Third flight of PASS and BFS Operational Increment 34 (OI-34) and MEDS Multifunction Display Unit Function (MDUF) VI 6.00**
 - No logic changes from the STS-129 software system

- **First flight of MEDS Integrated Display Processor (IDP) VI 7.01**
 - Minor update corrected a condition (DR 121432) that could result in an IDP Halt in an unlikely operator error scenario where specific types of invalid data are broadcast on a DK bus

- **Fourth flight of MAGRS-3S Link 613-9966-008 GPS FSW**
 - No changes from STS-129 software



FSW READINESS SUMMARY

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- **Integrated Avionics Verification (IAV) is complete**
 - A total of 16 cases were executed and analyzed in support of STS-130
 - Included testing of full flight system (PASS/BFS STS-130/OI-34 with flight-specific I-Loads; MEDS VI 7.01/6.00 (IDP/MDUF); MAGRS-3S Link 8; and SSME AD08/DA05 software)

- **SAIL facility will be in a condition of readiness for mission support**

- **Formal Software Readiness Review (SRR) was conducted on 12/17/09**
 - No known constraints

- **With the completion of planned open work, FSW will be ready to support STS-130 launch**





LAUNCH ON NEED STATUS

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- In the event of call-up, the STS-131 flight software products would be flown on OV-103
 - OI-34 STS-131 Base Load and associated products
 - Flight specific I-Load patches for STS-131 (full payload bay)
 - OI-34 compatible MEDS IDP and MDUF software (VI 7.01/6.00)
 - MAGRS-3S Link 8
- Completion of the development and verification of flight-specific FSW products for STS-131 will be performed in time to support the 03/18/10 target launch date
- Formal Software Readiness Review to be conducted after call-up



STS-130 FLIGHT SOFTWARE FLIGHT READINESS STATEMENT

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Full compliance with SPOC Flight Software CoFR requirements is documented in the STS-130 Software Readiness Review packages along with signed readiness statements and identification of open work.

Pending completion of standard open work and identified non-standard open work, Flight Software is ready to support flight.

Original signed by Patti A. French 01/08/10

Patti A. French **Date**
Associate Program Manager
USA Flight Software





STS-130 SSP Flight Readiness Review PGSC



Pre-decisional. Internal Use Only.



Pre-decisional. Internal Use Only.

Payload and General Support Computer Readiness – STS-130

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Hardware and Software Summary

- STS-130 will be the seventeenth flight of the IBM ThinkPad A31p PGSC
 - **Six PGSC units** - None currently planned for ISS transfer
 - **New Software** – None
 - **Eleventh flight of the A31p Docking Station** (OCA and WinDecom)
 - **Ninth flight of Netgear Wireless Access Point.**
 - Note: No network issues observed during STS-129

IFA Summary

- OCA 48 Mbps High Data Rate initial failure (recovered for Late Inspection with backup cable)
 - **Primary cause was failed OCA cable**
 - Cable repaired (but not planned for flight manifest)
 - Broken Wire\Photos provided to RITF for analysis.
 - CR submitted for post-installation (in-vehicle) testing of OCA cable
 - DTV-MUX misconfiguration reoccurred – (enhanced training efforts undertaken)

PGSC Milestones

SAIL Testing	Bench Review	Cable Testing Late Update Disk	Launch
▼	▼	▽	↑
12/04	1/08	~1/25	2/07





STS-129 Non Standard Open Work	Presenter MS/Travis Robinson	
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	ECD
Systems Safety	
-Disposition of CR S050425JU, IMPS-01, Contamination in the Integrated MPS	01/22/10
-Disposition of CR S050425JU, IMPS-05, MPS H2 System Over Pressurization	01/22/10
-Disposition of CR S050425JV, IDBR-01, Ascent Debris Impact to SSV	01/22/10



Alternate/Dissenting Opinions	Presenter MS/Travis Robinson	
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- **Alternate/dissenting opinions were actively solicited at the SE&I STS-130 Pre-FRR.**
 - No dissenting opinions were identified.





CoFR Endorsement

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The Space Shuttle Program, Systems Engineering and Integration Office's Flight Preparation Process Plan, documented in NSTS 08117, Requirements and Procedures for Certification of Flight Readiness have been satisfied. Required products and other responsibilities identified in NSTS 08117, paragraph 8.5.12 and Appendix M, have been or will be scheduled for completion. All technical functions and responsibilities are ready and the Systems Engineering and Integration Office is prepared to sign the Certificate of Flight Readiness for STS-130, pending completion of open work.

/s/Donald S. Noah

Donald S. Noah
 Manager Systems Engineering and Integration Office



LON Status

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- SE&I has identified no technical or schedule constraints to the support of LON requirements for STS-130 using the SSP baseline "Fly the Next Flight" approach



