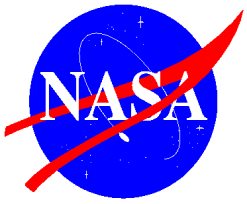


FPD-OI-FD01.5

May 29, 2001

George C. Marshall Space Flight Center
Marshall Space Flight Center, Alabama 35812

ORGANIZATIONAL INSTRUCTION

Flight Projects Directorate/Science Directorate

Resident Projects Office

FD01/SD10

Management Process

Baseline

APPROVAL

NAME	TITLE	ORG	DATE
Tom Erdman	Science Directorate Resident Office	SD10	
Emmett Crooks	Flight Project Directorate Resident Office Manager	FD01	
Robin Henderson	Microgravity Program Office Manager	SD10	
Jan Davis	Flight Project Directorate Manager	FD01	

- # General Information

1.1 Scope

This plan addresses the responsibilities, functions, organization, and MSFC Management System interfaces of the RO with FPD and SD.

1.2 Purpose

The purpose of this Organizational Work Instruction (OWI) is to describe the functions and responsibilities of the Marshall Space Flight Center (MSFC) Flight Project Directorate (FPD) Resident Office (RO) at Kennedy Space Center (KSC).

1.1 Applicability

This document applies to all RO personnel.

2.0 Applicable Documents List

Applicable documents are available to RO employees through the Internet from the KSC home page (http://www.ksc.nasa.gov) or inside MSFC (http://inside.MSFC.nasa.gov/index.html/). Employees should verify that they are working with the correct version before use.

Applicable Documents:

NPG 7120.5A
FPD-OI-FD01.1
FPD-OI-FD01.2
NPG 7120.1
KHB 1700.7
KHB 8040.4

3. Acronyms

As Built Configuration List	ABCL
Change Request	CR
Engineering Change Proposal	ECP
Field Engineering Change	FEC
Flight Project Directorate	FPD
Kennedy Space Center	KSC
Ground Operation Review	GOR
Ground Operation Working Group	GOWG
Interim Problem Report	IPR
Launch Commit Criteria	LCC
Material & Engineering Review Board	MERB
Microgravity Research Program Office	MRPO
Mobile Launch Platform	MLP
Multi-Payload Processing Facility	MPPF
Mission Processing Team	MPT
Material Review Board	MRB
Operational & Checkout	O&C
Orbiter Processing Facility	OPF
Organizational Work Instruction	OWI
Operation Maintenance Instruction	OMI
Operational Maintenance Requirements Specification	OMRS
Payload Developers	PD
Payload Ground Operations Contractor	PGOC
Payload Hazardous Servicing Facility	PHSF
Problem Report	PR
Resident Office	RO
Spacecraft Assembly and Encapsulation Facility	SAEF
Science Directorate	SD
Shuttle Landing Facility	SLF
Space Station Processing Facility	SSPF
Technical Interface Meeting	TIM
Unexplained Anomaly	UA
Vertical Processing Facility	VPF
Visitors Record Center	**VRC**

Marshall Space Flight Center Organizational Work Instruction FD01		
MPRPO KSC Resident Management Office OWI	**FPD-0I-FD01.5**	**Baseline**
	Date: 2/1/00	

4. Instructions

4.1 Contingency Planning

The RO supports MSFC payloads and KSC contingencies as required by the applicable project or program elements declaring the contingency. These contingency procedures include scrub turn around requirements, hurricane rollback, and ferrying orbiter back to KSC after an emergency landing, and day to day contingency trouble shooting plans.

4.2 Launch/Test Support

4.2.1 Payload/ISS Processing Support

Prior to hardware arrival RO provides assistance with requirements definition, hardware delivery, Launch Commit Criteria (LCC), Ground operation Working Group meetings (GOWG), Ground Operation Reviews (GOR) meetings, and scheduling as required. Once hardware arrives the RO represents the applicable project or program management during KSC hardware processing. The RO provides management and technical insight, influence and approval of applicable integration and testing operations at KSC including policy, planning, and problem resolution. RO also supports launch countdown and scrub turn around activites as required for MSFC projects or payloads.

4.2.2 Hardware Turnover

After the PD or hardware developer has completed off-line testing as required, the hardware is then ready to turn over to KSC for on-line processing. The RO will host the turnover meeting, and sign the appropriate turn over forms stating that the hardware is ready for KSC to begin on-line processing. **See Appendix A** for a list of items required in the Integration Data Package (IDP).

4.2.3 Quality Coverage

The resident office coordinates required QA coverage by KSC QA for payload processing/testing and supports payload compliance with all safety requirements that apply to off-line and on-line payload activities.

4.3 Flight and GSE Hardware and Software Engineering Support

4.3.1 Information Sources

RO personnel use the following sources as required to obtain information pertinent to payload integration, testing, launch processing schedules, status, policy changes, issues and events.

- Face-to-face consultation with NASA, Payload Ground Operations Contractor (PGOC), and Payload Developers (PD)
- Observation of hardware processing tasks/milestones
- Local area network- and web-based scheduling/status applications
- Online Payload Data Library
- Boeing Resident Office
- Mission Processing Team (MPT) meetings
- Ground Operations Working Group Meetings (GOWG)
- Special Technical Interface Meetings (TIM)
- Preship Reviews
- Pre-flight readiness reviews
- Various e-mails concerning specific issues
- Launch countdown activities at KSC Launch Control Center
- MERB Board Meetings
- Turnover Meetings
- Configuration Change Boards
- Program Requirements Control Boards
- Special issue meetings

4.3.4 Nonconformance Resolution Support

During payload processing each RO representative is responsible for notifying appropriate MSFC or Microgravity project offices of any nonconformance Problem Reports (PR) or Interim Problem Reports (IPR) that may have an impact on flight hardware and or the processing of the flight hardware at KSC. If the PR requires a MRB, UA, waiver, or FEC to close the PR, a RO signature is required prior to KSC closing the PR. The RO representative will coordinate with the proper project office prior to signing for the trouble shooting steps or final closure statement. See **Flow Diagram 1** for nonconformance Resolution Support Flow.

4.4 Operation and Maintenance Instruction (OMI) Development

RO will assist in OMI development for MSFC payloads or missions. RO will distribute OMI's to the proper project organization, PI's and PD's as required, and have final signature authority for MSFC projects. Prior to signing of the OMI for release the RO will coordinate with the appropriate MSFC office to ensure that the intent of MSFC Project requirements are met.

4.5 Change Evaluation

RO personnel review configuration change documentation for technical, schedule, and budgetary merit affecting any RO hardware. This activity encompasses change control boards (CCBs), material review boards (MRBs), Material and Engineering Review Board (MERB) field engineering changes (FECs), engineering change proposals (ECPs), modification kits, Operational Maintenance Requirements Specification (OMRS) waivers, and change requests (CRs).

4.6 Panel/Working Group Support

RO personnel participate on panels and working groups as required. Procedures are determined by the particular panel/working group charter.

4.7 Personnel Badging and Access Clearance

The RO processes requests for badging and access clearance for applicable MSFC or Microgravity personnel, MSFC contractors, customers, Payload Developers (PD), and Principle Investigators. See flow diagram #2.

4.8 Personnel Access Training

The RO coordinates the training requirements for personnel access to KSC work areas. See **flow diagram #3** for personnel access training flow diagram, and **Appendix B** for a list of training classes required to gain access to the different payload facilities.

4.9 Property Management

MSFC Property assigned to the RO is managed in accordance with MM 400.1, Property Management Manual. KSC property assigned to the RO is managed in accordance with NHB 4200, NASA Equipment Management Manual, as implemented by KSC NASA Equipment Management System Property Custodians Manual, KSC Supplement to NHB 4200.

5.0 Notes

N/A

6.0 Safety Precautions and Warning Notes

N/A

7.0 Appendices, Data, Reports and Forms

Appendix A list of Items for the KSC Integration Data Package
Appendix B Training classes required for unescorted access to KSC Payload Facilities

8.0 Quality Records

None

9.0 Tools, Equipment, and Materials

N/A

10.0 Personnel Qualification, Training and Certification

All employees are considered fully qualified to perform their assigned functions and no specific additional training for job performance or skill certification has been identified.

An employee shall be considered qualified to fill his/her initial position when the individual is hired and successfully completes the three-month probationary period.

When an employee is reassigned, transferred or competitively promoted to another position, the KSAOC job description for that position shall establish the employee's qualifications for that position.

11.0 Flow Diagram

Diagram #1 Nonconformance Resolution Support Flow
Diagram #2 Personnel Badging and Access Clearance
Diagram #3 Personnel Access Training

Appendix A. List of Items for the KSC Integration Data Package (IDP),

1. Title page identifying hardware being delivered and signed by Payload Developer and Mission Manager if required.
2. Table of contents of the IDP
3. Copy of the shipping document showing the how the hardware arrived at KSC and a KSC Form 1149 transferring the hardware over to KSC.
4. Note/Comments that the PD wants to make sure KSC is aware of, such as specific constraints on orientation or operation.
5. Copies of any waivers and deviations that may affect KSC integration.
6. List of shortages, hardware or software that is required for integration but not being turn over at this time.
7. A copy of all open discrepancy reports and any closed discrepancy reports that may affect KSC integration.
8. A list of any deferred work that should have been completed by the PD prior to turnover.
9. A copy of the ABCL which describes the hardware at the top assembly level, and any PD drawings required for KSC integration.
10. Limited operating Life items which may require documenting the number of times the item has been used or any time critical items.
11. Information on any pyrotechnics installed in the hardware.
12. A list of all non-flight items with location and quantity installed on the hardware at turnover.
13. Any proof load diagrams or calibration data on any GSE that may require proof loading or calibration at KSC.
14. Operating test procedures developed by the PD.
15. Cleanliness Certification
16. All open items from the Phase III ground safety review. All of these items must be closed out prior to KSC operations or a letter identifying all hazardous conditions during the KSC integration.
17. Weight and center of gravity.

Diagram #1. Nonconformance Resolution Support Flow Diagram.

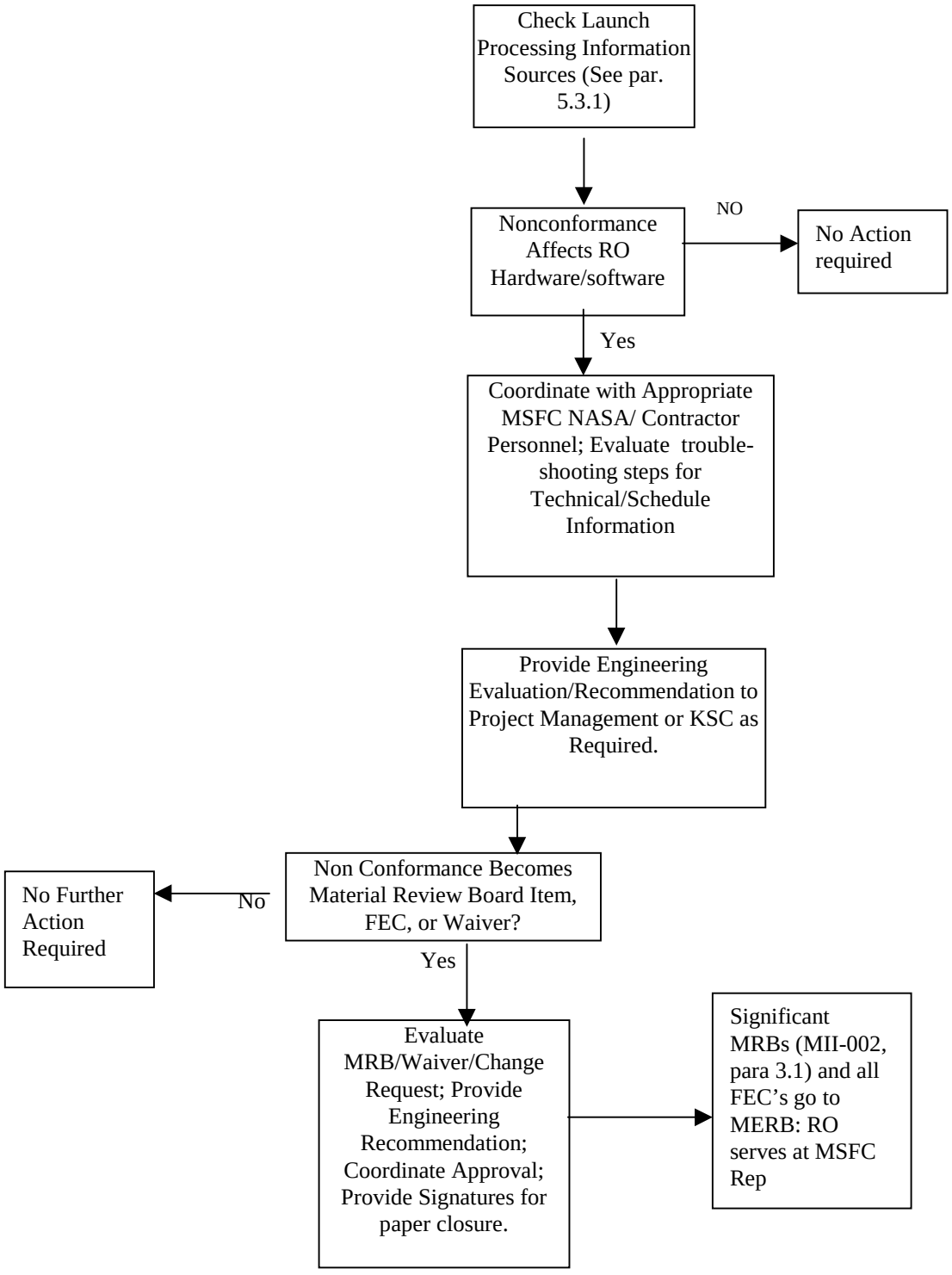
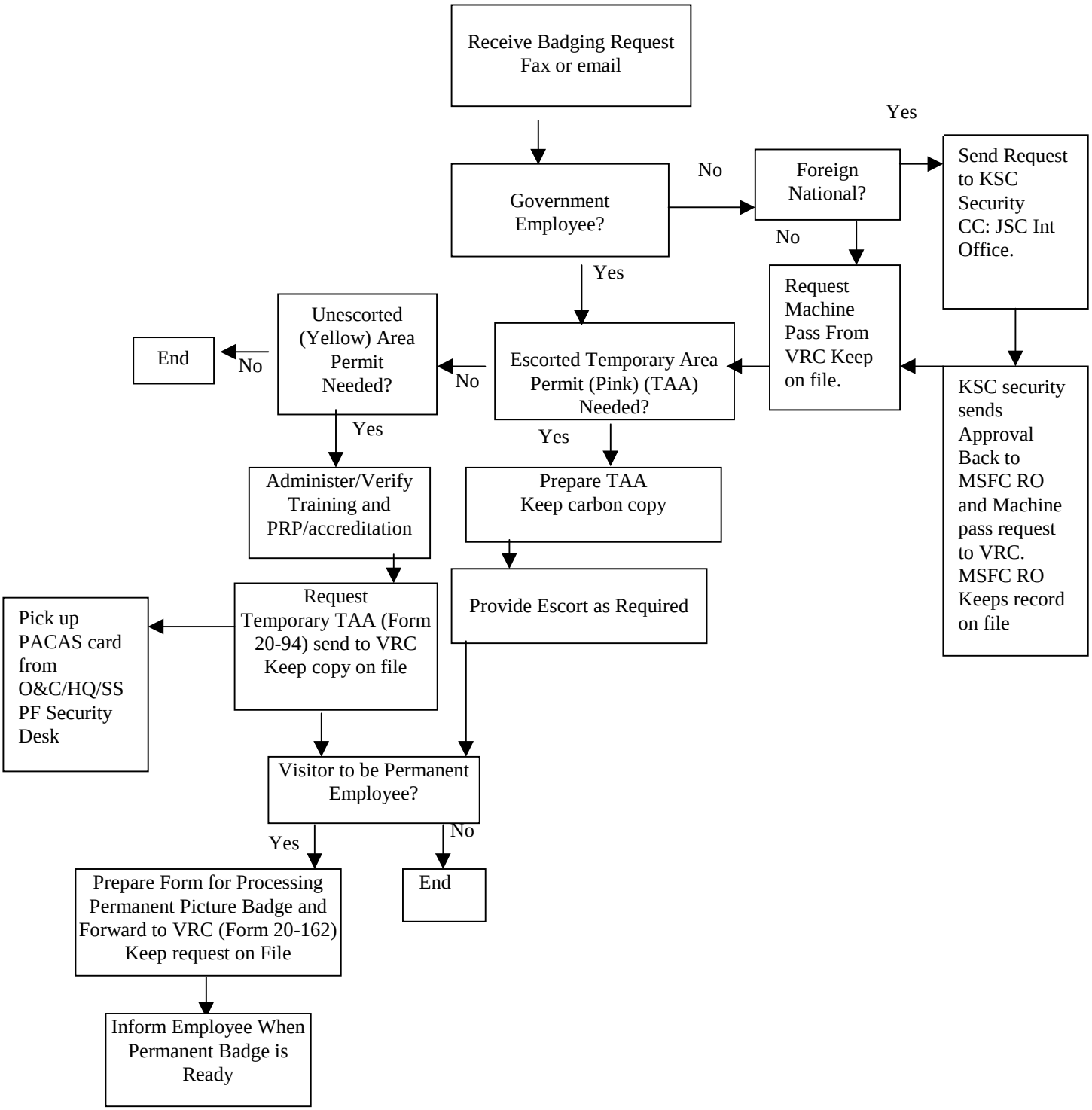


Diagram #2. Personnel Badging and Access Clearance Flow Diagram.



Appendix B. Training Classes Required For Unescorted Access to KSC Payload Facilities.

OIS-D (for CITE, integ. testing, launch)	OC320MDA	Class	2 hrs.
<u>Unescorted access to: SSPF, PHSF, VPF, CRF</u>			
ELSA	QG07CKSC	Class	30 m.
Gen. Processing Safety	QG109KSC	Video	30 min
Industrial Area Safety.	QF28XKSC	Video	1.5 hrs
Anhydrous Ammonia Hazard Awareness (SSPF only)	QG223KSC	Class	45 min.
<u>Unescorted access to: LC-39 Area (SLF, OPF, VAB, PAD (not PCR))</u>			
ELSA	QG07CKSC	Class	30 m.
Gen. Processing Safety	QG109KSC	Video	30 min
LC-39 Area Familiarization	QF39XKSC	Video	1.5 hrs
<u>For working at the OPF/PAD</u>			
How Clean is Clean	QS-205-LSK	Video	42 mn.
FOD Prevention	QS-210-LSK Rev	Video	12 mn.
Space Shuttle Safety	QG150KSC	Video	25 mn.
Fall Protection for P/L Customers	QG271MDA	Class	2 hrs.

Diagram 3. Personnel Access Training Flow Diagram.