

Software Quality Flight Operations Review (FOR) Checklist

Date(s) of Assessment: _____ Project: _____

Assessor(s): _____ Review Examined: _____

		Y, N, NA	F, O	Comments #
REVIEW PREPARATION				
1	Have standards been identified to clearly define the review process?			
2	Were guidelines used to prepare for the review?			
3	Has the project submitted any request for deviations or waivers to the defined process?			
4	Have entrance and exit criteria been established for the review?			
5	Was an agenda prepared and distributed in advance of the review?			
6	Was the review package provided with ample time to review?			
7	Were the appropriate stakeholders in Attendance?			
REVIEW CONTENT				
8	Were the goals of the review and any review prerequisites provided?			
9	Was the review process addressed, including the method for capturing Requests for Action (RFAs), risks, or issues?			
10	Was an overview of the software project/system provided (e.g., mission goals, key functionality, operational characteristics)?			
11	Was the Organization/Work Breakdown Structure (WBS)/Project relationship presented?			

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12	Was status given on action items from the Mission Operations Review (MOR)?			
13	Was status included on action items from all previous software reviews?			
14	Is IV & V status provided?			
15	Were the pertinent stakeholders involved in approval of the review material?			
16	Were security issues presented?			
17	Were safety issues presented?			
18	Are there any new requirements or changes in plans since the Mission Operations Review (MOR)?			
19	Was status of the mission planning and scheduling tool provided?			
20	Were plans for personnel location for Launch & Early Orbit (L&EO) and Instrument Operations Center (IOC) provided (i.e., project office, operations & spacecraft subsystem expert personnel)?			
21	Were significant L&EO milestones identified?			
22	Were any significant L&EO operations changes made since MOR?			
23	Is a summary of the network compatibility test results provided in the review material?			
24	Was remaining work identified with a plan to accomplish (i.e., tests, simulations)?			
25	Is a summary of the final orbital operations plans included in the review material?			
26	Was real-time health and safety monitoring and safe mode operations statused?			
27	Were contingency procedures identified?			

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Y=Yes, N=No, NA=Not Applicable, F=Finding, O=Observation)

For more information, please visit the NASA GSFC Software Assurance Website, at <http://sw-assurance.gsfc.nasa.gov>.

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28	Is the compatibility of the flight components with ground support equipment and the ground network presented?			
29	Was status of development and verification/validation provided?			
30	Are any compatibility issues concerning operations, mission or flight systems presented?			
31	Did the project provide an assessment of criticality of open problems?			
32	Has the Flight Software Maintenance approach been identified and formalized?			
CONFIGURATION MANAGEMENT				
33	Is there evidence that the software is under configuration management (CM) control and change procedures are being implemented as specified in the CM Plan?			
34	Are there any outstanding configuration management (CM) issues?			
SOFTWARE QUALITY				
35	Is there evidence that software quality procedures are being implemented as specified in the software quality (SQ) Plan?			
36	Are there any outstanding software quality issues?			
RISKS, ISSUES, RFAs				
37	Are technical risks, mitigation plans, and issues documented with plans for tracking and closure?			

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SOFTWARE DOCUMENTATION STATUS				
38	Does the review package include software documentation as specified in the project plan? (Sample of possible documents) <ul style="list-style-type: none"> • Ground Req. Document • SC to Ground ICD • Mission Readiness Test Plan • L&EO Mgmt Plan • Spacecraft Launch Commit Criteria • Ground System Launch Commit Criteria • Mission Rehearsal Plan • SC Interface & Mission Test Plan • Orbital Activation Plan • Command & Telemetry Handbook • Checkout Plan 			
POST REVIEW ACTIVITIES				
39	At the conclusion of the review is a technical understanding reached on the validity and degree completeness of the Flight Operations Review?			
40	Did all designated parties concur in the acceptability of the Flight Operations Review?			
41	Are there any risks, issues, or request for actions (RFAs) that require follow-up?			
42	Is there a process in place for reviewing and tracking the closure of risks, issues, or RFAs?			
43	Have all artifacts been placed under formal configuration control (e.g., review packages)?			

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44	Were Lessons Learned addressed and captured?			

REFERENCE ITEMS/DOCUMENTS

GSFC System Review Office Design Review Guidelines

Review Definition – This review emphasizes the final orbital operations plans, as well as the compatibility of the flight components with ground support equipment and the ground system. The plans for final end-to-end testing and simulations will be reviewed. The results of previous testing will be included (i.e., discrepancy summary, network compatibility assessment, training status, etc.). The final launch, orbital operations, and checkout plans will be presented.

