



ARM Risk: 4303 - U.S. Human Spaceflight Launch Gap

Risk Detail Report

Open Date: 7/23/2007

Status as of: 3/19/2009

ECD: 3/30/2015

Risk Title: U.S. Human Spaceflight Launch Gap

Escalation Level: Top Directorate Risk

Owning WBS Element: Directorate Integration Office

Risk Status: Approved

Risk Owner: John Olson

Risk Statement: Given there will be a gap between the Space Shuttle Program and Initial Operations Capability (IOC) of the Constellation Program (CxP), there is a possibility of a negative impact to the successful implementation of the Constellation Program

Likelihood: 4

Safety: 2

Performance: 3

Schedule: 4

Cost: 5

Context: The Executive Branch directed the Agency to develop and launch the Crew Exploration Vehicle/Crew Launch Vehicle (CEV/CLV) no later than 2014 and the Legislative Branch directed the Agency to minimize the time between IOC and Shuttle retirement in order to retain competency in human spacecraft operations. However, the current CxP funding does not support a CEV/CLV development and launch timeline which minimizes GAP between programs. A gap between Shuttle retirement in 2010 and IOC in 2015 increases the opportunity to lose skills in launch processing and mission operations capability within the national aerospace community. In addition, the delay until 2015 or beyond places the US in a sole dependency for support to ISS on foreign launch service providers. Further, a gap between programs can result in loss of national interest in NASA.

Status:

2/2/2009 11:22:24AM - Awaiting new administrator and executive branch policy guidance before updating risk -- watch and mitigation activities. 02 Feb 2009. Dave Lengyel

12/15/2008 10:25:09AM - Conducted a ThinkTank review of watch items on Friday 12 December 2008. A follow-on session will be scheduled in early January 2009. Watch items include: Monitor extension of SSP manifest, Await interpretation and potential implementation of CxP Acceleration Team project, Industrial base viability and continue to evaluate critical supplier availability, Monitor new Administration review of current CxP ARES-1 /Orion approach, Monitor workforce stability through Shuttle of CxP transition, Monitor COTS D activities and successes, and so on. D. Lengyel - 15 Dec 2008.

9/19/2008 12:39:57PM - Risk transferred from CxSD to Transition per 18Sep08 RMWG action.



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5/5/2008 11:45:46AM - 5/5/08 - Risk statement updated to reflect potential consequences that could result from Shuttle/Constellation gap. Child candidate risks have been identified for each potential consequence and researching to see if risks all ready exist. CSD parent risk will remain a watch risk while children risks are mitigated.

12/3/2007 8:39:53AM - Risk reviewed at GSFC ESMD QPMR including likelihood of additional funding toward Constellation Goals from temporary upswell of congressional support. Management team decided any increase in CxP funding would likely offset cost threats and would not reduce the Human Launch Gap. Continue in Watch category.

8/8/2007 1:09:03PM - Changed Risk Status fom Candidate to Approved per 31July07 Top Risk Review

Handling Strategy: Watch

Mitigation Plan: ESMD/DIO will monitor related risks, risk drivers, activities, milestones, budget levels, international partners, and space policy to gage the trend of the human spaceflight gap in order to take advantage of opportunities to reduce the gap.

Fallback Plan: Dependence of foreign launch services (e.g. Russian Space Agency) for continued human spaceflight capabilities to ISS.



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ECD: 3/30/2015

Task ID	Task Description	Owner	Due Date	Comp. Date	Resulting L x C	Success Criteria
15602	Evaluate Opportunities in CxP Acceleration Team Report	John Olson	1/30/2009			
15611	Monitor Shuttle Extension Study	John Olson	5/29/2009			
15604	Monitor New Administration Review of Current CxP ARES-1 /Orion Approach	John Olson	6/30/2009			
15607	Monitor Potential EELV vs Ares Trades	John Olson	7/31/2009			
15608	Monitor EELV Human Rating Evolution and Maturity	John Olson	12/31/2009			
15606	Monitor COTS D Activities and Successes	John Olson	12/31/2009			
15615	Monitor SOMD Safety Risks Associated With Extended Shuttle Operations	John Olson	5/28/2010			
15609	Monitor Facility Handover/Turnover from Shuttle to CxP	John Olson	5/28/2010			
15601	Monitor SSP Manifest	John Olson	5/28/2010			
15616	Monitor ESAs Plans to Human Rate ATV for ISS Support	John Olson	12/31/2012			
15617	Monitor Key Risk Drivers for Development of Ares 1 and Orion to LEO.	John Olson	12/31/2012			
15612	Monitor Russian Spaceflight Capabilities, Costs/Contracts	John Olson	12/31/2014			
15605	Monitor Workforce Stability Through Shuttle of CxP Transition	John Olson	12/31/2014			
15610	Monitor French Ariane V and ATV, Japanese HTV and H-2B Integrated ISS Support Capability	John Olson	12/31/2014			



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15613	Watch Extension of the ISS	John Olson	12/31/2014			
15614	Monitor Privately Funded Commercial Spaceflight Developments	John Olson	12/31/2014			
15603	Monitor Industrial Base Viability	John Olson	12/31/2014			



ARM Risk: 5363 - Lack of an Agency capability to track and monitor the health of the NASA supplier base
Risk Detail Report

Open Date: 7/9/2008

Status as of: 3/19/2009

ECD:

<p>Risk Title: Lack of an Agency capability to track and monitor the health of the NASA supplier base</p> <p>Escalation Level: Undefined</p>	<p>Owning WBS Element: Transition</p> <p>Risk Status: Approved</p> <p>Risk Owner: Robert Soltess</p>
<p>Risk Statement: Given that a Supplier Base Management System is not in place; there is a risk that NASA will not be able to identify, track, monitor and mitigate the potential risk to the health of its supplier base.</p>	
<p>Likelihood: 4 Safety: 0 Performance: 3 Schedule: 5 Cost: 4</p>	
<p>Context: NASA does not currently understand the ability of the SSP supply base to continue to support CxP post SSP. The human spaceflight gap due to the transition from Shuttle to Constellation threatens the health of NASA's supplier base; any risk to the health of the supplier is a risk to NASA's ability to effectively execute the Constellation Program. NASA currently does not have an Agency-wide system for Supplier Base Management. This responsibility has historically been delegated to the Elements and to the prime contractors. Without an Agency-wide Supplier Base Management system NASA cannot systematically indentify risks to the viability of its supplier base during the Transition to Constellation. Risks to supplier base viability could have cost and schedule impacts on the Constellation Program.</p>	
<p>Status: Until now, NASA has delegated the primary responsibility of managing the supply base to each individual project element and to the prime contractors.</p> <p>3/17/2009 10:55:32AM - March 17 2009 Have taken delivery of the phase 1 software PrimeMap. Are currently testing the software and presenting it to other organizations including OSMA and DIO. Have integrated OSMA's SAS tool into PrimeMap. Also considering integrating PrimeMap with ARM and/or IRMA. In discussions with OSMA for them to use PrimeMap in their NASA Audit Management Process.</p> <p>3/3/2009 12:01:48PM - The contractor has been placed on contract and has delivered an initial beta version of the product. We are currently testing the beta version.</p> <p>1/13/2009 4:23:41PM - Money has been allocated and added to Futrons contract. Have been delayed by Contract Officers at JSC in getting the ACC, the contractor on contract with Futron. It should be any day now.</p>	



ARM Risk: 5363 - Lack of an Agency capability to track and monitor the health of the NASA supplier base
Risk Detail Report

Open Date: 7/9/2008

Status as of: 3/19/2009

ECD:

12/10/2008 1:58:27PM - Wed Dec 10, 2008 Ted Bujewski

Finalizing acquisition of mapping software through contractor. Released RFQ on Dec 10, 2008, Expect response by Dec 12, 2008. Completed data scrub of Ares 1 supplier list needed as input for mapping software. Expect contractor to begin work immediately following receipt of purchase order no later than Jan 1. Data loading should take no more than two weeks.

10/30/2008 8:36:27AM - Acquire initial data from SSP and CxP. Have initial data from SSP. CxP will not provide supplier data. Mitigation step not completed moving on in process without CxP data.

8/12/2008 11:13:33AM - Risk Risk Status Changed.

Handling Strategy: Mitigate

Mitigation Plan: Put a Supplier Base Management System in place, including appropriate software tools. Develop an organizational structure and processes for gathering and inputting data into the tool and for analyzing and acting on that data.

Fallback Plan: -Use SMRT document process

- Use CRM across Programs
- Use 'Prime Supplier' tool



ARM Risk: 5363 - Lack of an Agency capability to track and monitor the health of the NASA supplier base

Risk Detail Report

Open Date: 7/9/2008

Status as of: 3/19/2009

ECD:

Task ID	Task Description	Owner	Due Date	Comp. Date	Resulting L x C	Success Criteria
12649	Define requirements	Robert Soltess	9/30/2008	9/ 1/2008	4 x 5 - Red	
12650	Acquire data	Robert Soltess	9/30/2008	9/25/2008	4 x 5 - Red	
12651	Funding	Robert Soltess	9/30/2008	9/19/2008	4 x 5 - Red	
12652	Phase I developmnet	Robert Soltess	1/30/2009	2/19/2009	4 x 5 - Red	
12653	Phase I testing	Robert Soltess	2/15/2009		3 x 5 - Red	
12699	Process and organizational structure	Robert Soltess	2/16/2009		2 x 4 - Yellow	
12698	Present software and concept	Robert Soltess	2/20/2009		2 x 4 - Yellow	
12656	External Audit	Robert Soltess	3/06/2009		2 x 2 - Green	
12701	Document approval	Robert Soltess	3/31/2009		2 x 2 - Green	
12700	Supplier Base Management Program Plan	Robert Soltess	5/16/2009		2 x 2 - Green	



ARM Risk: 5365 - Unfunded Gaps in Critical Capabilities

Risk Detail Report

Open Date: 7/14/2008

Status as of: 3/19/2009

ECD:

Risk Title: Unfunded Gaps in Critical Capabilities		Owning WBS Element: iTransition		
Escalation Level: Top Directorate Risk		Risk Status: Approved		
		Risk Owner: Rich Wickman		
Risk Statement: Given that there will be a time delay between the SSP last need date and identification of firm CxP or other program requirements for some critical capabilities needed by CxP or other programs; there is a possibility that the physical condition and/or the human skills necessary to operate and maintain these facilities will degrade before a firm decision on future use can be determined, thereby requiring extensive repair and refurbishment at a later date as well as re-establishment of the human skills necessary to operate and maintain them. Depending upon the facility and the length of the period of indecision, this could generate the need for large capital expenditures and cause lengthy program/project delays.				
Likelihood: 3	Safety: 2	Performance: 5	Schedule: 5	Cost: 5
Context: It is very likely that the MOST critical facilities currently used by SSP and expected to be used by CxP WILL be identified. For these facilities, it will be essential to develop an appropriate maintenance/mothball strategy and to identify the critical human resources necessary to restore the facility to operating status in a timely manner. It is moderately likely that some facilities which will be needed will NOT be identified and that resources to support some of the critical facilities will not be available. For these facilities, it will be desirable to develop a less aggressive, but still appropriate maintenance/mothball strategy and human resources plan in order to restore the facility to operating status in a reasonably timely manner.				
Status: Incorporates changes recommended by Frank Bellinger. Not a FERPD risk (SCAP or iTransition). Facility aspect of this risk covered in Risk 5381.				
12/15/2008 8:52:09AM - OI approved this risk and made this a TDR on 12-15-08				
Handling Strategy: Mitigate				
Mitigation Plan: Develop a tiered plan which incorporates the probability that a facility will be needed with the costs of maintaining. Address the human resource requirements related to specific facilities by examining the various personnel and community of practice databases in the context of specific facilities. This type of activity has been contemplated by some within NASA HQ, but has not been fully explored.				



ARM Risk: 5365 - Unfunded Gaps in Critical Capabilities

Risk Detail Report

Open Date: 7/14/2008

Status as of: 3/19/2009

ECD:

Fallback Plan:

Task ID	Task Description	Owner	Due Date	Comp. Date	Resulting L x C	Success Criteria
12681	ERIC Reviews	Rich Wickman	10/31/2008	10/31/2008	3 x 5 - Red	
16148	Develop comprehensive list of Shuttle facilities	Rich Wickman	1/30/2009	1/30/2009	3 x 5 - Red	
12682	HSFC Capabilities II Gap Resolution	Rich Wickman	5/01/2009		3 x 5 - Red	
12683	Reach consensus of facility funding business models	Rich Wickman	8/31/2009		2 x 3 - Yellow	



ARM Risk: 5368 - Orbiter Placement Decision

Risk Detail Report

Open Date: 7/14/2008

Status as of: 3/19/2009

ECD:

Risk Title: Orbiter Placement Decision		Owning WBS Element: iTransition		
Escalation Level: Top Directorate Risk		Risk Status: Approved		
		Risk Owner: Rich Wickman		
Risk Statement: Given that the retired Space Shuttle Orbiters will become available for placement within or external to NASA, interest in these rare artifacts is exceedingly high, and Orbiter placement decisions will be subject to scrutiny by Congress and the American public; there is a possibility that NASA's placement decisions may be challenged and the Agency may suffer negative repercussions including possible budgetary earmarks from conflicts or challenges that may arise.				
Likelihood: 4	Safety: 1	Performance: 4	Schedule: 1	Cost: 5
Context: NASA will retire the Space Shuttle Program (SSP) by 2010. NASA Transition and Retirement necessitates the disposition of all SSP assets no longer required by NASA, including the Space Shuttle Orbiters themselves. While NASA's first priority is flying out the remaining Shuttle missions safely, because of the quantity, complexity, and dispersion of SSP assets, successful Transition and Retirement requires careful planning now, particularly in light of the increasing interest expressed by U.S. educational institutions, science museums and other organizations in acquiring major Space Shuttle assets, including the Orbiters themselves. NASA has already received multiple expressions of interest from the museum and educational outreach community for acquiring an Orbiter once these assets are no longer needed by NASA. In the current climate, NASA may be perceived to be making placement and final disposition decisions for the Orbiters and other major SSP assets without using a rigorous, objective evaluation process. In addition, the scope and depth of the interest in acquiring an Orbiter is largely unknown at this time, but appears to be escalating over time.				
Status: Related to EMDs #5329 CRM Impacts Scoped to Transition				
9/15/2008 9:33:57AM - Risk approved by Board				
Handling Strategy: Mitigate				



ARM Risk: 5368 - Orbiter Placement Decision

Risk Detail Report

Open Date: 7/14/2008

Status as of: 3/19/2009

ECD:

Mitigation Plan: 1) Establish Assessment Panel

2) Develop placement criteria

3) Issue RFI

4) Develop recommendations

Fallback Plan:

Task ID	Task Description	Owner	Due Date	Comp. Date	Resulting L x C	Success Criteria
12622	Issue RFI	Rich Wickman	11/30/2008	12/17/2008	3 x 5 - Red	Agency selects next step (e.g., RFP or budget request).
16149	Recommendation based on RFI responses	Rich Wickman	4/15/2009		3 x 5 - Red	
12621	Develop Placement Criteria	Rich Wickman	4/30/2009		3 x 5 - Red	
12620	Establish Assessment Panel	Richard Wickman	6/30/2009		3 x 5 - Red	
12623	Develop Recommendations	Rich Wickman	12/31/2009		2 x 5 - Yellow	



ARM Risk: 5369 - Increased Processing Costs and Decreased Revenues for Shuttle-related Property Due to Export Control Risk Detail Report

Open Date: 7/14/2008

Status as of: 3/19/2009

ECD:

Risk Title: Increased Processing Costs and Decreased Revenues for Shuttle-related Property Due to Export Control Regulations (ITAR)	Owning WBS Element: iTransition			
Escalation Level: None	Risk Status: Approved Risk Owner: Rich Wickman			
Risk Statement: Given that export control regulations, as interpreted by the NASA Office of External relations, classify most SSP property, including ground infrastructure, hardware and systems, as governed by International Traffic in Arms Regulations (ITAR) requirements, categories 4 and 15; there is a possibility that NASA may not have adequate resources to process the volume and surge of property requiring ITAR scrutiny and experience significant delay in disposition of SSP property and in the FY 2008 – FY 2014 timeframe.				
Likelihood: 4	Safety: 1	Performance: 4	Schedule: 4	Cost: 4
Context: Section 38 of the Arms Export Control Act (22 USC 2778) authorizes the President to control the export and import of defense articles and defense services. ITAR Categories IV and XV, “Launch Vehicles, Guided Missiles, Ballistic Missiles, Rockets, Torpedoes, Bombs and Mines,” and “Spacecraft Systems and Associated Equipment,” respectively, apply to all shuttle components, hardware, systems and subsystems, as well as associated ground components and systems. These ITAR requirements levy an additional workload and resources on the SSP program and on I & A to identify and tag, and track all pieces of shuttle-related property				
Status: 9/15/2008 9:34:29AM - Risk approved by Board.				
Handling Strategy: Mitigate				
Mitigation Plan: Perform certain preliminary relatively low-cost planning steps to identify and scope the ITAR requirements as they apply specifically to classes of shuttle property. Develop a property disposition plan to specifically address ITAR considerations, in consultation with the NASA export control, shuttle and infrastructure communities.				
Fallback Plan:				



ARM Risk: 5369 - Increased Processing Costs and Decreased Revenues for Shuttle-related Property Due to Export Control Risk Detail Report

Open Date: 7/14/2008

Status as of: 3/19/2009

ECD:

Task ID	Task Description	Owner	Due Date	Comp. Date	Resulting L x C	Success Criteria
12624	Interact with the following NASA internal communities: Export Control, Logistics, and shuttle and exploration program and project managers. on requirements, definitions, and scope of property and work.	Richard Wickman	5/08/2008	5/ 8/2008	4 x 4 - Red	OI and Centers Ops are comfortable with T&R budget for institutional workload
12625	Develop PPBE 2010 estimate for making export control determinations.	Richard Wickman	7/31/2008	9/15/2008	4 x 4 - Red	
15106	KSC Property Disposition Kaizen	Susan Kinney	12/04/2008	12/ 4/2008	4 x 3 - Yellow	
15107	JSC Property Disposition Kaizen	Susan Kinney	12/11/2008	12/11/2008	4 x 3 - Yellow	
12626	Develop NASA destruction guidance and procedures vetted with stakeholders.	Richard Wickman	3/31/2009		3 x 3 - Yellow	
12631	Budget for remaining institutional workload post-2010	Rich Wickman	1/01/2010		1 x 2 - Green	



ARM Risk: 5366 - Lack of Coordinated Outreach Planning and Communication for Artifacts
Risk Detail Report

Open Date: 7/14/2008

Status as of: 3/19/2009

ECD:

Risk Title: Lack of Coordinated Outreach Planning and Communication for Artifacts	Owning WBS Element: iTransition			
Escalation Level: None	Risk Status: Approved Risk Owner: Rich Wickman			
Risk Statement: Given that NASA currently has an indeterminate number of SSP artifacts with potentially more being identified after Program fly-out; there is a possibility that NASA will not have adequately informed the public about the availability of the artifacts and communicated the process by which organizations or individuals might acquire specific artifacts for personal or professional use.				
Likelihood: 4	Safety: 1	Performance: 4	Schedule: 3	Cost: 1
Context: Although the Agency has procedures for disposition of historic artifacts, those procedures are time-consuming and difficult to apply in the case of Space Shuttle Program T&R due to the vast number of items to be dispositioned over a relative compressed timeframe. Clear guidance and a standard process is required to identify potential artifacts, make artifact determinations, advertise artifact availability to eligible recipients, make placement decisions, and transfer the artifacts. The Agency will be subject to public criticism and increased oversight if a clear, open, and transparent process for artifact identification and disposition is established.				
Status: 9/15/2008 9:32:36AM - Risk Risk Status Changed.				
Handling Strategy: Mitigate				
Mitigation Plan: 1) Establish Agency SSP Artifacts Working Group 2) Identify Potential Agency Artifacts from TPA 3) Prescreening Agency Artifacts for Donation to Eligible Institutions				
Fallback Plan:				



ARM Risk: 5366 - Lack of Coordinated Outreach Planning and Communication for Artifacts

Risk Detail Report

Open Date: 7/14/2008

Status as of: 3/19/2009

ECD:

Task ID	Task Description	Owner	Due Date	Comp. Date	Resulting L x C	Success Criteria
12615	Establish Agency SSP Artifacts Working Group	Richard Wickman	7/31/2008	8/11/2008	4 x 4 - Red	
12616	Identify Potential Agency Artifacts from TPA	Rich Wickman	3/03/2009		3 x 3 - Yellow	
12617	Prescreen Agency Artifacts for Donation to Eligible Institutions	Rich Wickman	9/30/2009		2 x 2 - Green	



ARM Risk: 5373 - Cost/Capacity for Disposition Surge- Personal Property Risk Detail Report

Open Date: 7/14/2008

Status as of: 3/19/2009

ECD:

Risk Title: Cost/Capacity for Disposition Surge- Personal Property				Owning WBS Element: iTransition		
Escalation Level: None				Risk Status: Approved		
				Risk Owner: Rich Wickman		
Risk Statement: Given that there are a large number of Space Shuttle Program personal property assets that require disposition over a relatively short time-frame; there is a possibility that the cost of disposition is grossly under- or over-estimated and not enough resources are devoted to the task.						
Likelihood: 5		Safety: 1	Performance: 3		Schedule: 3	Cost: 4
Context: Due to the large number (over one million line items) and location (many in contractor possession) of component parts, as well as the uncertainties associated with cost reimbursements, the exact cost of disposition of Shuttle components is difficult, if not impossible, to determine. The vast quantity of personal property items, all needing disposition over a fairly short period of time, will over-burden the current systems that are in place.						
Status:						
9/15/2008 9:36:10AM - Risk approved by Board.						
Handling Strategy: Mitigate						
Mitigation Plan: As cost estimation refinements are made, costs will be adjusted accordingly in the Plan.						
Fallback Plan:						
Task ID	Task Description	Owner	Due Date	Comp. Date	Resulting L x C	Success Criteria
12630	Refine Cost Estimations	Rich Wickman	4/30/2009		2 x 2 - Green	
12631	Budget for remaining institutional workload post-2010	Rich Wickman	1/01/2010		1 x 2 - Green	OI and Centers Ops are comfortable with T&R budget for institutional workload



ARM Risk: 5374 - CxP Validation of SSP Property Transfer Estimate

Risk Detail Report

Open Date: 7/14/2008

Status as of: 3/19/2009

ECD:

Risk Title: CxP Validation of SSP Property Transfer Estimate	Owning WBS Element: iTransition			
Escalation Level: None	Risk Status: Approved			
	Risk Owner: Rich Wickman			
Risk Statement: Given that there are a large number of SSP personal property assets that require disposition over a relatively short time-frame, and CxP development and operations plans are not fully defined; there is a possibility that estimates of the amount of SSP property to be transferred to CxP are overstated and the T&R budget will be insufficient to accommodate actual property disposal workload and costs in the year of execution.				
Likelihood: 3	Safety: 1	Performance: 4	Schedule: 1	Cost: 5
Context: CxP's current focus is on Orion and Ares I design and development and defining its long-term facilities requirements. Although some effort has been put into defining CxP requirements for personal property, CxP has relied primarily on SSP knowledge of what SSP personal property should be transferred to CxP. The number of line items to be transferred from SSP to CxP has increased from approximately 342,000 line items (PPBE 2009 estimate) to approximately 490,000 line items (PPBE 2010 estimate), a 49 percent increase. The T&R budget will be based in part on these assumptions. It is less costly to transfer items between NASA programs than to excess them through the property disposition process. Any items that do not transfer to CxP will ultimately need to be disposed, but the T&R budget may be insufficient to support that additional workload.				
Status: 9/15/2008 9:36:40AM - Risk approved by Board				
Handling Strategy: Mitigate				
Mitigation Plan: As property transfer estimates are refined, T&R property disposition costs will be adjusted accordingly in the Plan.				
Fallback Plan:				



ARM Risk: 5374 - CxP Validation of SSP Property Transfer Estimate

Risk Detail Report

Open Date: 7/14/2008

Status as of: 3/19/2009

ECD:

Task ID	Task Description	Owner	Due Date	Comp. Date	Resulting L x C	Success Criteria
12632	Complete Transition Property Assessment (TPA)	Rich Wickman	1/31/2009		3 x 3 - Yellow	
12633	Validate TPA Transfer Estimates	Rich Wickman	3/31/2009		3 x 2 - Green	



ARM Risk: 3340 - Space Shuttle Program Personal Property Disposition Planning Risk Detail Report

Open Date: 3/15/2007

Status as of: 3/19/2009

ECD:

Risk Title: Space Shuttle Program Personal Property Disposition Planning

Escalation Level: Top Directorate Risk

Owning WBS Element: iTransition

Risk Status: Approved

Risk Owner: Rich Wickman

Risk Statement: Given that the Space Shuttle Program (SSP) fly-out will be completed in 2010, there is a significant amount of SSP personal property that will require disposition, much of the property will not be available for disposition until after the program concludes, and personnel familiar with the property's use and characteristics will begin moving to other positions after 2010; there is a possibility that required resources may not be available to properly and safely dispose of remaining personal property; higher costs may be incurred as disposition occurs in a condensed period of time, NASA may fail to fully comply with regulatory and legal requirements for personal property disposition, property with possible historic value may be inadvertently disposed of, and improper storage or disposition of hazardous materials and waste may occur.

Likelihood: 5

Safety: 2

Performance: 3

Schedule: 3

Cost: 4

Context: Personal property disposition poses a huge challenge to Space Shuttle Program Transition and Retirement due to the large quantity (over one million line items) and multiple locations (NASA-held on-site, contractor-held on-site, and contractor-held off-site) of property requiring disposal, lack of detailed information about the property (salient characteristics required for proper disposition), as well as the compressed time period over which the property must be disposed.

Status:

6/2/2008 8:19:39AM - approved by I&A RMB

Handling Strategy: Mitigate



ARM Risk: 3340 - Space Shuttle Program Personal Property Disposition Planning Risk Detail Report

Open Date: 3/15/2007

Status as of: 3/19/2009

ECD:

Mitigation Plan: 1. Establish iJICB and iTCB and develop a high-level Property Disposition Plan to oversee and manage property transition efforts and progress.
 2. Coordinate with Constellation Program to validate personal property transfers.
 3. Prescreen as much property as possible to determine whether a NASA, Federal or donation use exists prior to its actual availability.
 4. Establish an Agency Space Shuttle Program Artifacts Working Group to validate artifacts, develop artifacts placement criteria, review prescreening results and make artifact placement decisions, and periodically report results to the iTCB and Agency Artifacts Committee.

Fallback Plan: Dispose of property over longer period of time after completion of program and assess costs associated with the process over remaining agency programs.

Task ID	Task Description	Owner	Due Date	Comp. Date	Resulting L x C	Success Criteria
12610	Develop Property Disposition Plan	Diana Hoyt	8/31/2008	11/17/2008	3 x 3 - Yellow	Property Disposition Plan accepted by appropriate Transition Management Boards (JICB, TCB, iJICB and iTCB).
12551	Establish an Agency Space Shuttle Program Artifacts Working Group	Rich Wickman	9/30/2008	8/11/2008	3 x 3 - Yellow	The Agency Space Shuttle Program Artifacts Working Group completes placement determinations for all artifacts subjected to prescreening process.
12550	Coordinate property transfer estimate with Constellation Program.	Rich Wickman	3/31/2009	1/15/2009	3 x 3 - Yellow	Transfer estimate used as basis for PPBE 2011 planning.
5272	Prescreening of unrequired NASA property.	Rich Wickman	7/31/2009		3 x 3 - Yellow	Predecisional placement determinations made for all requested artifacts.
5280	Identify property to become available at program close	Mike Showers	3/03/2010		2 x 2 - Green	



ARM Risk: 5367 - Difficulty Identifying Historically Relevant Personal Property Risk Detail Report

Open Date: 7/14/2008

Status as of: 3/19/2009

ECD:

Risk Title: Difficulty Identifying Historically Relevant Personal Property	Owning WBS Element: iTransition			
Escalation Level: None	Risk Status: Approved			
	Risk Owner: Rich Wickman			
Risk Statement: Given that NASA has numerous artifacts with a wide variety of historic, scientific, and sometimes military applications that are important to preserve for both NASA's and the nation's interests; there is a possibility that poor records management could result in items being improperly identified/categorized and that some or all information associated with certain items might be lost, confused or altered.				
Likelihood: 4	Safety: 1	Performance: 3	Schedule: 1	Cost: 3
Context: Many of NASA's artifacts and facilities served unique functions as part of the Space Shuttle Program. Many of these items do not have a detailed history attached to the item. For example, the bolts that help hold the orbiters together may not have historical tags identifying which have been flown, which flights they were used on, and anything of note associated with their use. Given the potential large number of artifacts NASA must disposition at the end of the Shuttle Program, this information needs to be documented and maintained with the items in question.				
Status: 9/15/2008 9:33:10AM - Risk approved by Board				
Handling Strategy: Mitigate				
Mitigation Plan: Work with the NASA records management and history personnel to develop a simple and effective method for ensuring the significant properties of any artifact or property are preserved. Include experts from museums like the National Air and Space Museum or the Smithsonian Institute as a whole to help ensure the appropriate information is preserved.				
Fallback Plan:				



ARM Risk: 5367 - Difficulty Identifying Historically Relevant Personal Property Risk Detail Report

Open Date: 7/14/2008

Status as of: 3/19/2009

ECD:

Task ID	Task Description	Owner	Due Date	Comp. Date	Resulting L x C	Success Criteria
12618	Partner with records management and history personnel	Diana Hoyt	1/01/2010		3 x 2 - Green	
12619	Partner with historical preservation personnel	Diana Hoyt	1/01/2010		2 x 2 - Green	



ARM Risk: 5372 - Lack of Standardized Planning Process and Definition of Terms Risk Detail Report

Open Date: 7/14/2008

Status as of: 3/19/2009

ECD:

Risk Title: Lack of Standardized Planning Process and Definition of Terms	Owning WBS Element: iTransition			
Escalation Level: None	Risk Status: Approved			
	Risk Owner: Rich Wickman			
Risk Statement: Given that there is a lack of standardization and a common definition of terms (e.g., “artifact”, “facility”, process for making export control determinations, etc.); there is a possibility that coordination of the infrastructure transition planning activities across the Agency will be disjointed and ineffective, leading to duplication of effort, increased costs, and suboptimal transition and disposition of SSP infrastructure assets.				
Likelihood: 3	Safety: 1	Performance: 2	Schedule: 3	Cost: 2
Context: Since NASA has never performed Transition activities on this scale, terms that were previously adequate and readily understandable may no longer be applicable to these activities. For example, the term “artifact” was generally thought to be well defined yet the term is subject to varied interpretations across the Agency. Due to the quantity potential Space Shuttle program artifacts and the number of organizations involved, the process for identifying potential artifacts and making artifact determinations is not well understood.				
Status: 9/15/2008 9:35:33AM - Risk approved by Board				
Handling Strategy: Mitigate				
Mitigation Plan: The Plan will include definitions, references, and standards necessary for disposition of assets.				
Fallback Plan:				



ARM Risk: 5372 - Lack of Standardized Planning Process and Definition of Terms

Risk Detail Report

Open Date: 7/14/2008

Status as of: 3/19/2009

ECD:

Task ID	Task Description	Owner	Due Date	Comp. Date	Resulting L x C	Success Criteria
12629	Review existing Transition Documentation and develop standard descriptions and definitions for commonly referenced terms	Rich Wickman	1/31/2009		2 x 2 - Green	
12627	Develop an Infrastructure Transition Implementation Plan to address those issues.	Rich Wickman	3/31/2009		2 x 3 - Yellow	



CxP Risk: 2315 Detail Report

Open Date: 08/20/2007

Status as of: March 19, 2009

ECD:

Title: Preservation and Storage of Shuttle Hardware for Constellation		Status: Open	Escalation: None	Timeframe: Mid	Risk Source:				
Statement: Given the fact that shuttle flight hardware to be used by Constellation Program may not be preserved and protected properly to support manifest; there is a possibility that flight worthy hardware will be costly to program if not preserved and stored properly.									
Context: SRB Project has a plan to put flight hardware in minimum condition for storage through 2010. Any remaining structures not in storage condition at that time shall be preserved by Constellation Program. Long term preservation (5-10 years) would require a high degree of preservation to maintain flight status. SRB Project is actively seeking storage solution for all flight structures designated for Constellation.									
Risk Owner (RO): Nguyen, Bao	Phone No. 321.861.3602	WBS: GO_LXV_LV		Likelihood	X	Safety	Performance	Schedule	Cost
Flights Affected:		Team Affected: T_and_E_Facilities, GO_LXV_LV		4		1	4	5	2
Mitigation Cost (\$M)									
Phase	High	Most Likely	Low	Budget Committed (\$M)		Total Threat (\$M)			
IOC	0	0	0	0		0			
CxLEO OPS	0	0	0	0		0			
HLR	0	0	0	0		0			
Post HLR	0	0	0	0		0			
Other	0	0	0	0		0			
Cost Breakdown:									
Closure/Acceptance Criteria:									
Closure/Acceptance Rationale:									
Current Status: 2/18/2009									
MSFC has been given the go ahead for HG-S and HG-O mods for temp storage during Shuttle fly out. MSFC is funding the project and expected KSC GO to pick up the O&M cost post 2010. KSC GO has not complete evaluation of long term storage at this time. Level II (Linda Ham) has been involved and may elevate this risk to									



CxP Risk: 2315 Detail Report

Open Date: 08/20/2007

Status as of: March 19, 2009

ECD:

Project Risk (from Candidate).

1/15/2009

No new storage status to report. Still working with CCAF and KSC on HG-S and HG-O usage.

9/23/2008

Continuing to work possibilities of using Hangar S and Hangar O on the Capeside. Evaluating maintenance costs and sizing of the various facility options.

8/18/2008

LX-V is working with MSFC RMO, MSFC Ares, KSC PH and LX to coordinate requirements and needs. Short term storage of structures in HG-O is main focus at this time. Long term acquisition of HG-S is still in work.

7/17/2008

Sue Gaines and Melodie Jackson from LX are now involved with facilities and transition activities. Hangar O is still being pursuit for short term storage of outdoor structures. KSC has not considered HG-O as long term solution at this time. HG-S is.

6/20/2008

Actively pursuing Hangar S and Hangar O for storage solutions. Early indications from CCAF is that neither hangar would be available for Constellation use. MSFC and KSC will continue to work together for short and long term solutions.

5/19/2008

Commercial buildings are too costly to be considered at this time. AF Hangar O and Hangar S are being solicited for temporary storage thru 2010. Even if successful with HG-O and HG-S, long term storage until Ares V is still needed.

4/22/2008



CxP Risk: 2315 Detail Report

Open Date: 08/20/2007

Status as of: March 19, 2009

ECD:

No new status to report.

2/13/2008

(cont.)

Request for storage space from Space Florida

- A meeting between NASA, USA and Space Florida was conducted on Dec 17th to talk availability of space at the RLV hangar through 2010.
 - As a result, a request has been submitted thru USA Procurement office to receive an official quote for the cost and space available. Date has been extended to Feb 15 at the request of the SFA.
 - SFA has received USA request for quote, Preliminary proposal is in-work.
 - Face to face negotiation on lease cost, schedule and space allocation will be led by program office and closely coordinated with the MSFC project and business office.
 - A Pro-e Model of the floor plan of the RLV has been developed by engineering to assist in space utilization requirements.
 - Goal is to move necessary hardware into hangar prior to 08 hurricane season.
-

2/13/2008

Indoor storage space is required for major structures (Aft Skirts, Fwd Skirt, Frustums and ETA Rings) in order to comply with hurricane preparedness, environmental degradation and long term storage requirements per 10PLN-0191.

•Options Available:

(1) Commercial warehousing option ROM for \$310K per yr for 5 yrs.

(2) Request for storage space from Air Force. –Request denied, Letter pending.

(3) Modify ARF Logistics Building for limited number of structures: Current SSP Inventory requires space.

–Facilities management has reviewed the ARF warehouse and has identified hardware no longer required. Program has scrapped the facility hardware through the excess program. PM has identified additional electrical and mechanical flight hardware that is no longer required to support SSP. The hardware list has been presented to the Transition Team for review prior to scrap/excess. No space is currently available in the ARF warehouse for structures.

(cont.)

1/11/2008

LX-V reviewed document 10PLN-0191 Rev Basic (SRB Preservation Plan for Postflight Hardware) from USA SRB Element and has no comments at this time. This is a Level V document and will be worked up the management level. Dates TBD.

Storage status: Storage space is required for major structures (Aft Skirts, Fwd Skirts, Frustums and ETA Rings) flown for their last shuttle mission per 10PLN-0191.

• Option Available:



CxP Risk: 2315 Detail Report

Open Date: 08/20/2007

Status as of: March 19, 2009

ECD:

- (1) Commercial warehousing option ROM for \$310,000 per yr for 5 yrs.
 - (2) Modify ARF Logistics building for limited number of structures
 - (3) NASA request for storage space from Air Force
- A meeting between NASA, USA and Florida Space Authority was conducted on Dec 17th to talk availability of space at the RLV Hangar though 2010.
 - Requisition for quote is being submitted thru USA Procurement to receive an official quote for the cost and space available. ECD Feb 2008.
 - Goal is to move necessary hardware into Hangar prior to '08 Hurricane season.
-

11/26/2007

Received 10PLN-0191 Rev Basic (SRB Preservation Plan for Postflight Hardware) from USA SRB Element. The plan has been approved at Level V (USA SRBE) late October. It will be presented to Levels IV/III (currently planned as a joint board) within the next couple of weeks. Since the draft was reviewed and coordinated with MSFC Project and Engineering representatives earlier in the process, it is anticipated that it will be approved with little or no change.

LX-V will review and comment as required.

10/11/2007

Update Task Descriptions.

9/25/2007

Added tasks to mitigation plan.

8/21/2007

Long term storage would be required for major structures when they went thru the preservation process to include aft skirts, forward skirts, frustums, and ETA rings.

Long term storage evaluation included on-site (KSC/CCAFS) and off-site (Port Canaveral or local community). Concerns for off-site storage include security, access and transportation across public roadways.

Arrangement for short term storage at the SLF warehouse completed. CCAFS hangars under discussions.



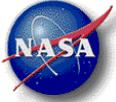
CxP Risk: 2315 Detail Report

Open Date: 08/20/2007

Status as of: March 19, 2009

ECD:

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CxP Risk: 2315 Detail Report

Open Date: 08/20/2007

Status as of: March 19, 2009

ECD:

Cost Summary

Phase	FY	Hi Mit. (\$M)	Most Like. Mit. (\$M)	Lo Mit. (\$M)	Budget Committed (\$M)	Comments
IOC						
IOC Total		0	0	0	0	
CxLEO OPS						
CxLEO OPS Total		0	0	0	0	
HLR						
HLR Total		0	0	0	0	
Post HLR						
Post HLR Total		0	0	0	0	
Other						
Other Total		0	0	0	0	

Totals (\$M)	0	0	0	0
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CxP Risk: 2315 Detail Report

Open Date: 08/20/2007

Status as of: March 19, 2009

ECD:

Mitigation Summary

Mitigation Plan Overview: Provide protective storage of flight hardware and put them on preservation/inspection plan so that they can maintain their flight-condition status.

Fallback Plan Overview:

Task No.	Task Description	WBS	Individual	ECD	ACD	Resulting Magnitude	Success Criteria
						L x C	
1	Arrangement for short term storage at the SLF warehouse completed.	GO_LXV_LV	NGUYEBT	6/1/2007	7/1/2007	0 x 0	Two forward skirts and two aft skirts are currently in storage at SLF.
2	LX-V to review 10PLN-0191 Preservation Plan and provide comments to USA SRBE	GO_LXV_LV	NGUYEBT	11/30/2007	12/14/2007	0 x 0	No comments provided at this time
3	CCAFS hangars and offsite facilities are under discussions.	GO_LXV_LV	NGUYEBT	9/1/2008		0 x 0	Move necessary hardware into Hangar/Storage facilities prior to '08 Hurricane season



CxP Risk: 2315 Detail Report

Open Date: 08/20/2007

Status as of: March 19, 2009

ECD:

Safety Information

Safety Assessor:	S&MA Escalation:	S&MA Risk Score:	Ready for Review:
Safety Risk?			
Rationale:			
Agree With Risk Characterization?			
Risk Characterization Rationale:			
Agree With Risk Mitigation Plan?			
Risk Mitigation Plan Rationale:			
Has Coordination With Risk Owner Started?			
Risk Owner Coordination Status:			



CxP Risk: 2430 Detail Report

Open Date: 09/17/2007

Status as of: March 19, 2009

ECD: 06/16/2010

Title: Space Station Processing Facility (SSPF) Funding Risk		Status: Open	Escalation: None	Timeframe: Mid	Risk Source: GO PPBE				
Statement: Given the Orion ground processing requirements no longer include use of the SSPF,; there is a possibility that 50% of the projected SSPF Operations & Maintenance costs are unfunded from FY11 through FY20, resulting in the risk that the Constellation Program may need to assume additional SSPF O&M funding during FY11-FY20 to ensure SSPF availability for planned Lunar Lander ground processing.									
Context: Prior to the approval of CR000150 (which moved all Orion offline processing out of the SSPF, to the MPPF), the SSPFO&M funding profile for FY11-20 was: 1) ISS for 50% FY11 through FY16, 2) CxP Lander for 50% from FY17 through FY20, and 3) CxP Orion for the remaining 50% from FY11 through FY20. Due to approval of CR000150, the projected portion of the SSPF O&M funding attributable to Orion is no longer available for SSPF O&M funding. The source of the funding to fill this budget gap has not yet been identified.									
Risk Owner (RO): Quinn, Shawn	Phone No. 321-867-4721	WBS: GO_LX_FP		Likelihood	X	Safety	Performance	Schedule	Cost
Flights Affected:		Team Affected: T_and_E_Facilities, GO		4		0	0	0	4
Mitigation Cost (\$M)									
Phase	High	Most Likely	Low	Budget Committed (\$M)		Total Threat (\$M)			
IOC	0	0	0	0		0			
CxLEO OPS	0	0	0	0		0			
HLR	0	9.78949	0	0		9.78949			
Post HLR	0	14.22934	0	0		14.22934			
Other	0	0	0	0		0			
Cost Breakdown: proposed level 2; used facility realignment numbers for 1/2 of SSPF									
Closure/Acceptance Criteria: SSPF funding source(s) identification/commitment for FY11-FY20.									
Closure/Acceptance Rationale: Identification of a funding source for the current SSPF O&M budget gap will ensure the facility will be available for planned Altair ground processing.									
Current Status: 1/9/2009									



CxP Risk: 2430 Detail Report

Open Date: 09/17/2007

Status as of: March 19, 2009

ECD: 06/16/2010

Per CxP direction all cost threats are rated at level III and will be evaluated by CxP before moving to a higher cost threat level.

10/16/2008

Updated mitigation plans. Continued with HLR SRR planning. Future use of SSPF with respect to Altair ground processing, Altair final assembly, and LSS ground processing will be addressed in a trade study supporting GO preparations for HLR SRR.

9/2/2008

Updated mitigation plans

7/18/2008

7-18-2008: Updated mitigation plan expected closure dates.

4/3/2008

Cost threat identified in PPBE 2008 submit as a cost threat. Risk 2430 has been updated with the latest financial data submitted through the UB Business Office. PPBE direction was to not pursue the decision package as part of the 08 PPBE, but to continue working the identified funding shortfall as a risk/cost threat. Various strategies are in work to find a customer/funding source.

11/19/2007

changed threat level from I to II, should have always been level II

9/17/2007

CR 150 was approved by program



CxP Risk: 2430 Detail Report

Open Date: 09/17/2007

Status as of: March 19, 2009

ECD: 06/16/2010



CxP Risk: 2430 Detail Report

Open Date: 09/17/2007

Status as of: March 19, 2009

ECD: 06/16/2010

Cost Summary

Phase	FY	Hi Mit. (\$M)	Most Like. Mit. (\$M)	Lo Mit. (\$M)	Budget Committed (\$M)	Comments
IOC						
	FY13	0	0	0	0	0
IOC Total		0	0	0	0	
CxLEO OPS						
CxLEO OPS Total		0	0	0	0	
HLR						
	FY17	0	2.326	0	0	
	FY18	0	2.405	0	0	
	FY19	0	2.48699	0	0	
	FY20	0	2.5715	0	0	
HLR Total		0	9.78949	0	0	
Post HLR						
	FY21	0	2.65898	0	0	
	FY22	0	2.749	0	0	
	FY23	0	2.84286	0	0	
	FY24	0	2.9395	0	0	
	FY25	0	3.039	0	0	
Post HLR Total		0	14.22934	0	0	
Other						
Other		0	0	0	0	



CxP Risk: 2430 Detail Report

Open Date: 09/17/2007

Status as of: March 19, 2009

ECD: 06/16/2010

Total						
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Totals (\$M)	0	24.018	0	0
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CxP Risk: 2430 Detail Report

Open Date: 09/17/2007

Status as of: March 19, 2009

ECD: 06/16/2010

Mitigation Summary

Mitigation Plan Overview: The Human Lunar Return (HLR) SRR is planned for 6/2010. Determination of the trade studies and project interdependencies required to be understood and worked to support the HLR SRR is in work. Definition of planned SSPF use by Constellation projects must be considered as part of HLR SRR planning.

This risk was identified during the CR000150 approval process for visibility. An integrated trade study will be conducted to determine facility requirements for Altair Ground Processing, Altair Manufacturing and LSS Ground Processing. The results of this trade study will be used to determine revised spacecraft processing facility requirements for HLR.

Fallback Plan Overview:

Task No.	Task Description	WBS	Individual	ECD	ACD	Resulting Magnitude	Success Criteria
						L x C	
1	Establish GO Lunar Planning Team	GO	quinns	10/1/2008	8/26/2008	4 x 4 red	
2	Produce Level III GO HLR schedule to define required trade studies and dependencies between GO and other Level III projects (Note: This schedule will be used to further define mitigation steps).	GO_LX_F P	quinns	10/1/2008	9/25/2008	4 x 4 red	Draft roadmap schedule complete
3	Continue to get feedback from UB Business Office as to any impact possible SSPF O&M contractual changes may have on cost threat	GO_LX_F P	quinns	2/1/2009		4 x 3 yellow	



CxP Risk: 2430 Detail Report

Open Date: 09/17/2007

Status as of: March 19, 2009

ECD: 06/16/2010

Safety Information

Safety Assessor:	S&MA Escalation:	S&MA Risk Score:	Ready for Review:
Safety Risk?			
Rationale:			
Agree With Risk Characterization?			
Risk Characterization Rationale:			
Agree With Risk Mitigation Plan?			
Risk Mitigation Plan Rationale:			
Has Coordination With Risk Owner Started?			
Risk Owner Coordination Status:			



CxP Risk: 3174 Detail Report

Open Date: 04/10/2008

Status as of: March 19, 2009

ECD: 03/01/2009

Title: Michoud Assembly Facility (MAF) Transition		Status: Open	Escalation: TDR	Timeframe: None	Risk Source:				
<p>Statement: Given the required transition from the Space Shuttle Program to the Constellation Program (CxP);, there is a possibility that MaF may not be fully funded or utilized. If there are insufficient projects and external customers to fund the facility overhead including Construction of Facilities (CoF) maintenance and facility utilization, CxP may be required to fund this overhead to meet CxP projects' requirements at MaF. MaF Manufacturing Support and Facility Operations Contract (MSFOC) award is expected in December 2008. After contract award is complete, more accurate funding requirements will be available. In early spring 2009, CxP will negotiate funding source with SOMD.</p>									
<p>Context: As the SSP winds down and the CxP ramps up, three issues have arisen at the MAF: 1) After FY10, CoF level maintenance is no longer being funded by the SSP. The CxP has not set aside funds to undertake these large-scale maintenance projects. 2) MAF utilization costs are in flux as management and operation of the MAF transitions to a new business model under the auspices of the soon-to-be-formed MAF Directorate at the MSFC. 3) Coordination of Multi program schedules could impact SSP and CxP production schedules and costs.</p>									
Risk Owner (RO): Ham, Linda	Phone No. 281-483-6881	WBS: Facility_and_Asset_Intg		Likelihood	X	Safety	Performance	Schedule	Cost
Flights Affected:		Team Affected: Facility_and_Asset_Intg		4		0	1	5	4
Mitigation Cost (\$M)									
Phase	High	Most Likely	Low	Budget Committed (\$M)		Total Threat (\$M)			
IOC	295.6	283.6	197.4	0		283.6			
CxLEO OPS	229.5	229.5	229.5	0		229.5			
HLR	229.5	229.5	229.5	0		229.5			
Post HLR	0	0	0	0		0			
Other	0	0	0	0		0			
<p>Cost Breakdown: Evaluate CoF maintenance in terms of what can be done now vs. later. Determine funding source (Constellation, Shuttle, MSFC).</p>									
<p>Closure/Acceptance Criteria:</p>									



CxP Risk: 3174 Detail Report

Open Date: 04/10/2008

Status as of: March 19, 2009

ECD: 03/01/2009

Closure/Acceptance Rationale:

Current Status: 2/19/2009

MSFOC award date slipped to March 2009

12/4/2008

MSFOC award date slipped to January 2009

10/15/2008

Reassigned ownership of risk to Linda Ham. Reviewed risk, made changes to risk statement, context, costs and mitigation due to new information that was received.

7/15/2008

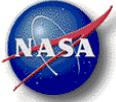
reviewed and adjusted Mitigation steps. Reviewed cost impacts.

5/7/2008

accepted as a top directorate risk at the ESMD risk review held on May 7, 2008.

4/10/2008

rolled the three T&E MAF risks into one risk to be a proposed Top Directorate risk. Modified Risk Statement, Context, Mitigation and Cost values for this risk.



CxP Risk: 3174 Detail Report

Open Date: 04/10/2008

Status as of: March 19, 2009

ECD: 03/01/2009

Cost Summary

Phase	FY	Hi Mit. (\$M)	Most Like. Mit. (\$M)	Lo Mit. (\$M)	Budget Committed (\$M)	Comments
IOC						
	FY08	12	0	2	0	
	FY11	51.9	51.9	51.9	0	
	FY12	70.2	70.2	43.6	0	
	FY13	79.8	79.8	52.9	0	
	FY14	81.7	81.7	47	0	
IOC Total		295.6	283.6	197.4	0	
CxLEO OPS						
	FY15	34.5	34.5	34.5	0	
	FY16	36	36	36	0	
	FY17	37.5	37.5	37.5	0	
	FY18	39	39	39	0	
	FY19	40.5	40.5	40.5	0	
	FY20	42	42	42	0	
CxLEO OPS Total		229.5	229.5	229.5	0	
HLR						
	FY15	34.5	34.5	34.5	0	
	FY16	36	36	36	0	
	FY17	37.5	37.5	37.5	0	
	FY18	39	39	39	0	



CxP Risk: 3174 Detail Report

Open Date: 04/10/2008

Status as of: March 19, 2009

ECD: 03/01/2009

	FY19	40.5	40.5	40.5	0	
	FY20	42	42	42	0	
HLR Total		229.5	229.5	229.5	0	
Post HLR						
Post HLR Total		0	0	0	0	
Other						
Other Total		0	0	0	0	

Totals (\$M)		754.6	742.6	656.4	0	
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CxP Risk: 3174 Detail Report

Open Date: 04/10/2008

Status as of: March 19, 2009

ECD: 03/01/2009

Mitigation Summary

Mitigation Plan Overview: Obtain a comprehensive list of major near and long term CoF maintenance tasks. Determine associated costs and schedule sensitivity. Identify shared institutional costs and determine allocation.

Determine appropriate funding source. Coordinate with MAF Transition Team to assure Constellation Program priorities are met.

Fallback Plan Overview:

Task No.	Task Description	WBS	Individual	ECD	ACD	Resulting Magnitude	Success Criteria
						L x C	
1	Begin participation in MAF Transition Team Meetings (Transition schedule)	Test_and_Evaluation	dfender	10/15/2007	10/15/2007	4 x 5 red	Participation in meetings established
2	Get updated list of CoF maintenance tasks and cost estimates. (maintenance)	Test_and_Evaluation	dfender	9/14/2007	12/14/2007	4 x 5 red	Detailed list of needed facility CoF projects and justification
3	Presented upper stage MAF requirements to CxAMP and Program Manager. (Transition schedule)	Test_and_Evaluation	dfender	1/25/2008	1/25/2008	4 x 5 red	CxAMP made recommendation on plan for Upper Stage and external tank conflict (MDF)



CxP Risk: 3174 Detail Report

Open Date: 04/10/2008

Status as of: March 19, 2009

ECD: 03/01/2009

4	Establish regular communication w/MAF Transition Team (Utilization)	Test_and_Evaluation	dfender	2/11/2008	2/11/2008	4 x 5 red	Communication established
5	Determine schedule sensitivity and cross reference with Constellation needs . MAF site survey. (maintenance)	Test_and_Evaluation	dfender	2/28/2008	4/2/2008	3 x 5 red	Concurrence from Cx Projects that the facility CoF tasks are required
6	Establish a MAF transition POC to CxAMP. (Transition schedule)	Test_and_Evaluation	dfender	2/28/2008	4/8/2008	3 x 5 red	MAF transition POC identified
7	Establish a T&E POC on the MAF I&O (Integrations and Operations) board. (Transition schedule)	Test_and_Evaluation	dfender	3/15/2008	4/8/2008	3 x 5 red	T&E POC identified (TFA Deputy)
8	Seek funding source(s) for MAF utilization and maintenance (cxCB, JICB, SCAP)	Test_and_Evaluation	ktemplin	6/16/2008	6/16/2008	3 x 5 red	Funding source(s) identified. In FY09 SOMD to provide \$7.9M, \$3M carried by CxP risk. In FY10 SOMD to provide \$7.5M
9	Funding Plan established	Test_and_Evaluation	ktemplin	7/9/2008	7/9/2008	3 x 5 red	Funds commitments made
10	MAF transition team to present MAF operations plan to CxAMP and establish working process with CxP to address priority conflicts (Transition schedule/Maintenance/Utilization)	Facility_and_Asset_Intg	ktemplin	9/26/2008	8/1/2008	3 x 5 red	Present negotiated process at CxAMP to show reduction in current cost for operations



CxP Risk: 3174 Detail Report

Open Date: 04/10/2008

Status as of: March 19, 2009

ECD: 03/01/2009

11	Ares and Orion provide OTI FAI their building requirements (Utilization)	Facility_and Asset_1 ntg	ktemplin	12/10/2008	9/8/2008	3 x 5 red	Facility requirements defined through ERIC
12	Determine key project (Ares, Orion, SSP) requirements milestones and schedule flexibility. (Transition schedule / Utilization)	Facility_and Asset_1 ntg	ktemplin	12/15/2008	12/10/2008	3 x 5 red	MAF floor space presented to CxP and SSP
13	Update cost projections based on MSFOC predictions	Facility_and Asset_1 ntg	ljham	4/30/2009		3 x 5 red	understanding of costs
14	Negotiate funding source with SOMD	Facility_and Asset_1 ntg	ljham	5/31/2009		3 x 3 yellow	SOMD/ESMD/CxP agree to funding source



CxP Risk: 3174 Detail Report

Open Date: 04/10/2008

Status as of: March 19, 2009

ECD: 03/01/2009

Safety Information

Safety Assessor:	S&MA Escalation:	S&MA Risk Score:	Ready for Review:
Safety Risk?			
Rationale:			
Agree With Risk Characterization?			
Risk Characterization Rationale:			
Agree With Risk Mitigation Plan?			
Risk Mitigation Plan Rationale:			
Has Coordination With Risk Owner Started?			
Risk Owner Coordination Status:			



CxP Risk: 1178 Detail Report Parent to 1184, 1181, 2325

Open Date: 08/23/2006

Status as of: March 19, 2009

ECD: 09/30/2010

Title: Turnover of Launch Site Processing Assets to Support GOP		Status: Open	Escalation: TDR	Timeframe: Far	Risk Source:				
Statement: Given the history of Space Shuttle Program manifest changes; there is a possibility that Launch Processing assets turnover delays could result in Constellation Ground Operations inability to meet current baseline project milestones.									
Context: This risk has been updated to capture an overarching risk addressing the potential SSP manifest decisions that may result in delayed asset transition and Constellation Ground Operations project baseline milestone impacts.									
Risk Owner (RO): Jackson, Melodie	Phone No. 321-867-6026	WBS: GO_LX_I_OI		Likelihood	X	Safety	Performance	Schedule	Cost
Flights Affected:		Team Affected: GO, T_and_E_Facilities		4		0	0	4	3
Mitigation Cost (\$M)									
Phase	High	Most Likely	Low	Budget Committed (\$M)		Total Threat (\$M)			
IOC	0	0	0	0		0			
CxLEO OPS	0	0	0	0		0			
HLR	0	0	0	0		0			
Post HLR	0	0	0	0		0			
Other	0	0	0	0		0			
Cost Breakdown:									
Closure/Acceptance Criteria: Assets have been transferred and/or the plan and schedules are fixed and no longer subject to change.									
Closure/Acceptance Rationale: No threat that an asset will not be available when needed by CxP									
Current Status: 2/04/2009									
Agency made decision to turnover HB 3 to Cx in Jan 2010 (at JPRCB on Jan 26).									
Decision to turnover Pad B has moved out to April 1st and has allowed some Ares 1X work to commence while the Shuttle Program decides on single pad or dual pad									



CxP Risk: 1178 Detail Report Parent to 1184, 1181, 2325

Open Date: 08/23/2006

Status as of: March 19, 2009

ECD: 09/30/2010

for HST LON.

1/16/2009

Hubble Space Telescope repair mission (STS-125) launch date has slipped and is now 5/12/09. This impacts the availability of VAB HB 3 and Pad B to support Ares I-X. Shuttle analyzing single string Pad LON support to free up assets earlier. Decision to occur in mid Jan 09. Current GOP need dates are: HB-3 Jan. 20, Pad B Feb. 12 and MLP-1 Feb. 17.

12/8/2008

Hubble Space Telescope repair mission (STS-125) launch date has slipped and is now 5/12/09. This impacts the availability of VAB HB 3 and Pad B to support Ares I-X. Shuttle analyzing single string Pad LON support to free up assets earlier. Decision to occur in mid Jan 09. Current GOP need dates are: HB-3 Jan. 20, Pad B Feb. 12 and MLP-1 Feb. 17.

11/12/2008

Hubble Space Telescope repair mission (STS-125) launch date has slipped and is now TBD. Once decision is made; asset turnover to Cx can be assessed

10/03/2008

Hubble Space Telescope repair mission (STS-125) slip will cause delays of asset turnover to support Ares I-X and Ares I-Y. Impacts are currently being assessed by GOP for VAB HB, Pad B and MLP-1 transition.

9/24/2008

Shuttle Life Extension Manifest Options Study being reviewed. KSC and CxP Program Management have been briefed on initial results. Both options allow post Ares I-X turnover of HB3, but could result in late turnover of Pad A for Areas V. Final decision expected May 09.

8/14/08. The Pad B project team continues is working with USA, JBOSC, and Indyne to develop a maintenance plan and cost estimate for Pad B maintenance post SSP. Preliminary MLP-1 end state assessments have been completed.



CxP Risk: 1178 Detail Report Parent to 1184, 1181, 2325

Open Date: 08/23/2006

Status as of: March 19, 2009

ECD: 09/30/2010

7/8/2008

The Pad B project team is working with USA, JBOSC, and Indyne to develop a maintenance plan and cost estimate for Pad B maintenance post SSP. Preliminary MLP-1 end state assessments have been completed.

7/22/2008

Transferred risk to LX-I, new owner Melodie Jackson, as per the GO RRP. MW

6/16/2008

The Pad B end-state configurations were presented to the Shuttle Engineering Review Board with no significant issues. A detailed maintenance plan is being prepared and is expected to be presented to the GOP Launch Pad Element Project Manager by the end of June. MLP-1 and VAB High Bays 2 & 3 end-state working groups have been established and have begun the transition process.

4/28/2008

VAB High Bay 2 platform design has been initiated although delay in funds receipt has had schedule impacts. SSP Ground Processing has given AIX authorization to proceed with planning for the permanent removal of C-platform in High Bay 3. The GOP Draft Transition Plan has been prepared and will be released for internal review 4/30. The GOP Transition Plan is an annex to the KSC Transition Plan. After internal review the plan will be released for external review along with the other KSC and Program Plans. The GOP plan will be signed by the Project Manager and the KSC Plan will be signed by the Deputy Center Director once all comments are dispositioned. Changed the estimated completion date for mitigation step 4 (Transition Plan Completion) to 9/30/08 (per GS-RRP 4/29) to allow time for review of the plan(s) and disposition of comments.

4/8/2008

The SSP continues to assess manifest change options that will slip the HST launch, with the leading options moving HST to 10-8-08 or 10-22-08 due to external tank manufacturing issues. CxP provided some preliminary impact assessments but awaits a final manifest change. Dale Thomas requested that the SSP make a decision by May 1st to minimize contract changes.

3/26/2008



CxP Risk: 1178 Detail Report Parent to 1184, 1181, 2325

Open Date: 08/23/2006

Status as of: March 19, 2009

ECD: 09/30/2010

A special topics presentation was given to the Standing Review Board on KSC Transition activities. A request was made by the SRB for SSP to provide more detailed schedules. The SSP Transition Manager will provide the requested information. GOP is providing an impact assessment of SSP Study Manifest 08A-20 which slips the HST launch 7 weeks to 10-22-08. Impacts are to be presented to the Tri-Program Board on 4-6-08.

Two new risks were associated per the Ground Operations Risk Review Panel: 1558 - Schedule Impact Due to Shuttle Operations and 1661 - Shuttle Impacts to Ares I-X KSC Processing

2/24/2008

The KSC Transition Working Group provided collective comments to the draft ESMD Transition Plan. The Constellation Ground Operations Project, the KSC Institution (TA) and the SSP continue to develop individual Transition Plans that inter-relate. In October, 2007 the strategy to have a single KSC Transition Plan was abandoned in favor of individual plans. A combined plan was deemed to be voluminous and too difficult to manage. April 30, 2008 remains the estimated completion date of all 3 plans.

The Transition Working Group continues to work PPBE related transition activities. A meeting is scheduled for March 11 at JSC to provide an update to the Human Spaceflight Capabilities Data provided last year.

2/6/2008

Moved Estimated Completion Dates on Mitigation Task 5 to 12/31/08 per GS RRP Chair. This decision was based on the fact that the processes and procedures to turn over assets will be validated by the actual transition of Pad B, which is scheduled to be completed in 10/08. He did not feel that this timeframe was adequate to complete these tasks.

2/4/2008

Escalated to a Top Directorate Risk (TDR) per the ESMD Top Risk Review (1/31/08).

Pad B system end-state assessment teams (DTEST) have completed the first round of evaluations. No significant issues were identified, and the process continues on schedule. GOP will continue to refine transition strategies, as part of the PPBE-08 process. Emphasis will be given to operational requirements, technical capabilities and timelines to assure readiness and risk mitigation.

Updated Estimated Completion Date of Mitigation Tasks 4 and 5 to 12/31/2008, changed cost and schedule consequence of Mitigation Tasks 4 and 5 from 3 to 2, and changed cost and schedule consequence of Mitigation Task 6 from 2 to 1 to create proper burndown per GS RRP Chair.



CxP Risk: 1178 Detail Report Parent to 1184, 1181, 2325

Open Date: 08/23/2006

Status as of: March 19, 2009

ECD: 09/30/2010

1/30/2008

Pad B system end-state assessment teams (DTEST) have completed the first round of evaluations. No significant issues were identified and the process continues on schedule.

1/8/2008

GOP will continue to refine transition strategies as part of the PPBE-08 process. Emphasis will be given to operational requirements, technical capabilities and timelines to assure readiness and risk mitigation.

11/30/2007

A review of SSP Manifest option 07B-21A is underway to determine the potential CxP impacts. The final West MLP Parksite data pack has been delivered to CxP.

11/6/2007

Preliminary discussions have been initiated to determine the end-state configuration for PAD B equipment and structures. The Launch Pad Element would like to move out on this activity to assure the the programs have a documented partnered end-state by the spring time frame. The SSP plans to official kick-off the PAD B transition project in January 2008.

10/9/2007

Transition planning activities between Programs (CxP, SSP & ISS) and Center Operations continue to evolve but schedule modifications were necessary to better align with process development. Moved risk mitigation completion dates out to April 2008.

9/10/2007

The CxP approved the dual design strategy for VAB high bays 2 & 3, which will preserve schedule and defer the CLV high bay selection/transfer. Lowered L to 3. The



CxP Risk: 1178 Detail Report Parent to 1184, 1181, 2325

Open Date: 08/23/2006

Status as of: March 19, 2009

ECD: 09/30/2010

plan for Ares I-X remains the same, to process through high bay 3 on a joint occupancy basis. The MPPF was approved for Orion processing in lieu of the SSPF but did not include the construction of a new high bay.

8/21/2007

This risk is currently trending downward due to potential SSP fly-out plans and manifest evaluations that may require the SSP to maintain 2 VAB integration cells (HB#1 & HB3#) until the end of the Program (2010) . This would impact the current CxP baselined need date for VAB HB#3 of 10/01/08.

8/9/2007

The West MLP Park Site SMRT document has been approved and the asset transfer continues on schedule. Participating in the KSC Facility Technical Capability Assessment (TCB Action). The objectives of this assessment are to: identify current technical capabilities by facility to room level, identify funding source(s) and projection through 2013, and identify capabilities with funding ending at the closeout of SSP & ISS (potentially stranded capabilities).

7/18/2007

De-escalation approved at the 7/31/07 ESMD Quarterly

Recommend to de-escalate per 7-18-07 CxCB, GO will leave open to continue to work risk from potential manifest changes. A joint project team is working the transfer of the West MLP Park Site from SSP to CxP to include the sharing of the Center site. Target transfer date is October 1, 2007 well in advance of the January 2008 CxP need date. This will allow CxP more time from pre-construction planning.

7/10/2007

A joint project team is working the transfer of the West MLP Park Site from SSP to CxP to include the sharing of the Center site. Target transfer date is October 1, 2007 well in advance of the January 2008 CxP need date. This will allow CxP more time from pre-construction planning.

6/11/2007

The recent approval of the SSP Manifest 07A-30C setting the HST Launch for September 10, 2008 results in a disconnect between the MLP-1 CxP need date of September 2, 2008 and the SSP turnover date of September 10, 2008 impacting Ares I-X. At this point, the 8 day delay is expected to be manageable within the current modification period of September 2, 2008 through January 6, 2009. The programs will continue to work closely on mitigation specifics. Lowered L to 3



CxP Risk: 1178 Detail Report Parent to 1184, 1181, 2325

Open Date: 08/23/2006

Status as of: March 19, 2009

ECD: 09/30/2010

5/7/2007

Continue to monitor Shuttle Manifest changes and impacts to the Constellation Program. Provided Ground Operation (GO) Project input to the Human Spaceflight Capabilities Assessment and supported the KSC Team briefing at JSC. GO will continue to refine capability requirements as the Program matures. (See Children risks for details: 1184 - Pad B and LON Hubble Flight Conflict, 1638 - HST LON Slip impact on Pad B and 1558 - Schedule Impact Due to Shuttle Operations)

4/11/2007

This risk is trending worse due to the SSP considering additional launches from Pad B and potential schedule slip of the HST LON affecting Pad B and MLP-1 development and ORD. Ground Systems continues to work closely with the SSP to quantify and evaluate manifest change impacts (Risk 1638 & 1558). CxP has schedule and cost impacts to CLV lightning protection system project at Pad B from HST LON due to restricted access and mobilization and de-mobilization of construction activities. Since the CLV lightning protection system at Pad B will not be completed in time to support Ares I-X temporary lightning protection for Ares I-X is required.

3/16/2007

Added ECD of 9/30/2010 per Christina Brown - kf.

3/15/2007

Escalated to TDR per the ESMD manager.

3/9/2007

GS Transition Manager added to the distribution for the Transition Control Board (TCB) and Joint Integration Control Board (JICB). Ground Systems Operations Director and KSC SSP Transition Manager presented LC-39B Hubble Space Telescope (HST) Launch-on-Need impacts to the TCB on March 7, 2007.

2/7/2007

The KSC Ground Systems Transition Manager is working with internal and external stakeholders to reconcile the schedules, standardize procedures and execute asset transition plans.



CxP Risk: 1178 Detail Report Parent to 1184, 1181, 2325

Open Date: 08/23/2006

Status as of: March 19, 2009

ECD: 09/30/2010

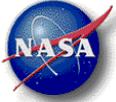
1/17/07: The impacts to the MLP-1 and Pad due to the HST LON mission approval have been realized, this risk will no longer address any risks associated with HST LON. In order to address the requirement to support the HST LON mission at Pad B, a new risk is being identified for the Ares I-1 and Ares I CLV Lightning protection requirements and additional funding is being requested. Pad B will carry a project risk if HST LON were to slip.

12/6/2006

Turnover of MLP-1 / Pad B moved due to HST LON decision. As a result the Permanent Lightning Protection System will not be available for ARES-1. Potential schedule impact to ARES-1 due to the combination of delayed MLP-1 turnover and requirements growth (rollout stabilization/wind dampening, exhaust hole covers, and relocation of MVAN racks to MLP). LH2 refurbishment impacts Ares 2 schedule 3-5 months. Looking at mitigation strategy to deal with turnover delays and their impacts.

10/5/2006

Risk 1184 Opened to work specific conflict of Pad B turnover
Continue to work transition planning and schedule development



CxP Risk: 1178 Detail Report Parent to 1184, 1181, 2325

Open Date: 08/23/2006

Status as of: March 19, 2009

ECD: 09/30/2010

Cost Summary

Phase	FY	Hi Mit. (\$M)	Most Like. Mit. (\$M)	Lo Mit. (\$M)	Budget Committed (\$M)	Comments
IOC						
IOC Total		0	0	0	0	
CxLEO OPS						
CxLEO OPS Total		0	0	0	0	
HLR						
HLR Total		0	0	0	0	
Post HLR						
Post HLR Total		0	0	0	0	
Other						
Other Total		0	0	0	0	

Totals (\$M)	0	0	0	0
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CxP Risk: 1178 Detail Report Parent to 1184, 1181, 2325

Open Date: 08/23/2006

Status as of: March 19, 2009

ECD: 09/30/2010

Mitigation Summary

Mitigation Plan Overview: Work with SOMD and ESMD transition planning. This risk was escalated to the ESMD level for visibility and advocacy purposes. Establish "Children" risks as necessary. Children risks will provide details on specific impacts and will be managed at the project level. Work with the appropriate Agency Transition Governance entities, (e.g., Transition Control Board (TCB) and Joint Integration Control Board (JICB) to facilitate tactical implementation and alignment with strategic perspectives.

Fallback Plan Overview: When an asset turnover delay cannot be avoided, as in the case of Pad B turnover due to Hubble Space Telescope (HST) Launch On Need (LON), every effort will be made to restrict impacts to less critical milestones preserving ORD and launch dates to the maximum extent possible.

Task No.	Task Description	WBS	Individual	ECD	ACD	Resulting Magnitude	Success Criteria
						L x C	
1	Assess alternative concepts both internally generated and resulting for the Broad Area Announcements (BAA) studies	GO-LX-D	SColloredo	12/31/2006	12/31/2006	4 x 4 red	
2	Acquire a Transition Manager for Ground Systems to provide single POC for all Ground Systems transition management work.	GO-LX-D	reedmb	12/10/2007	1/21/2007	4 x 4 red	
3	Evaluate the impact of HST LON on Pad B project development and establish "Children" risks as needed	GS-E-L-IV	browncm	3/31/2007	3/31/2007	3 x 4 yellow	Children risks: 1184, Pad B and LON Hubble Flight Conflicts and 1638, HST LON Slip impact on Pad B established
4	Establish GOP transition manager position and supporting organization	GS-E-L-IV	tanderson	6/15/2008	6/15/2008	4 x 4 red	Melodie Jackson designated as LX Transition Manager



CxP Risk: 1178 Detail Report Parent to 1184, 1181, 2325

Open Date: 08/23/2006

Status as of: March 19, 2009

ECD: 09/30/2010

5	Transfer ownership of risk to LX I and re-evaluate mitigation and score	GO_LV_I V_IO	tanderson	6/15/2008	6/15/2008	4 x 4 red	moved to LX O&I
6	Provide CxP impacts to various SSP launch options. As soon as HST repair mission (STS-125) launch date is determined, impacts will be fully assessed.	GO_LX_I_ OI	mjackson	11/25/2008	11/25/2008	4 x 4 red	
7	Temporarily Receive VAB HB 3 from SSP to support Ares I-X	GO_LX_I_ OI	mjackson	1/20/2009	1/16/2009	4 x 4 red	Modifications are currently occurring on a non-interference basis; date for full use for Ares I-X is dependant on HST
8	Receive commitment from SSP to turnover VAB HB 3 in Jan 2010; proceed with advertising HB 3 design for contract award (DATE TBD)	GO_LX_I_ OI	mjackson	1/22/2009	1/26/2009	3 x 4 yellow	
9	Develop a KSC Ground Operations Transition Plan that establishes internal processes and procedures that correlate with similar KSC & SSP Transition Plans	GO_LV_I V_IO	jacksonm	2/23/2009		4 x 4 red	Release. ECD is TBD
10	Temporarily Receive MLP 1 from SSP to support Ares I-X	GO_LX_I_ OI	mjackson	2/24/2009		3 x 4 yellow	Receive MLP after 2/19/09 SSP launch
11	Receive Pad B from SSP to support 7/11/09 Ares I-X and Ares I-Y (Shuttle decides on single Pad for HST LON)	GO_LX_I_ OI	mjackson	4/1/2009		4 x 4 red	Dependant on HST decision; SSP is looking at launching HST LON off Pad A, allowing turnover of Pad B now.



CxP Risk: 1178 Detail Report Parent to 1184, 1181, 2325

Open Date: 08/23/2006

Status as of: March 19, 2009

ECD: 09/30/2010

12	Decision to turnover PAB B to Support Ares 1-X and Ares 1-Y	GO_LX_I_OI	mjackson	4/1/2009		3 x 4 yellow	
13	Or: Receive Pad B from SSP to support 8/31/09 Ares I-X and Ares I-Y (Shuttle decides on dual Pad for HST LON)	GO_LX_I_OI	mjackson	5/1/2009		0 x 0	
14	Shuttle Life Extension Manifest Options Study (both options allow post Ares I-X turnover of HB3) (could result in late turnover of Pad A for Areas V) (ASD – 9/3/08)	GO_LX_I_OI	mjackson	6/1/2009		3 x 3 yellow	
15	Receive VAB HB 3 from SSP to support Ares I-Y	GO_LX_I_OI	mjackson	1/10/2010		1 x 1 green	



CxP Risk: 1178 Detail Report Parent to 1184, 1181, 2325

Open Date: 08/23/2006

Status as of: March 19, 2009

ECD: 09/30/2010

Safety Information

Safety Assessor: Fred Benavidez	S&MA Escalation: None	S&MA Risk Score:	Ready for Review: Yes
Safety Risk? No			
Rationale: Impact of Risk 1178 is limited to Schedule and Performance. No Potential Safety Risk anticipated due to schedule conflicts with SSP.			
Agree With Risk Characterization? Yes			
Risk Characterization Rationale: Initial Safety Risk score from Owner ranked as "None". Concur with assessment.			
Agree With Risk Mitigation Plan? Yes			
Risk Mitigation Plan Rationale: Proposed Mitigation plan includes coordination with SSP. Concur with approach.			
Has Coordination With Risk Owner Started? Yes			
Risk Owner Coordination Status: not required at this time.			



CxP Risk: 1165 Detail Report

Parent to 1202, 1553, 2175, 1107, 2181, 1109, 2249

Open Date: 08/07/2006

Status as of: March 19, 2009

ECD: 01/15/2009

Title: Facilities Readiness		Status: Open		Escalation: TProjR		Timeframe: None		Risk Source:			
Statement: Given the numerous facilities required by Constellation; there is a possibility that Agency and Constellation plans have not adequately accounted for restoration or replacement of facilities in time to meet Cx needs.											
Context: Effects : Numerous facilities, including NASA and DoD, currently identified as Constellation required, have been left in a mothball state. Many of these are propulsion facilities but also include some wind tunnels and structural facilities. Results of trades have also led to identifying the need to upgrade facilities and construction of new facilities, in some cases with capabilities that do not exist. There is a possibility that the Constellation program may not have sufficient funds to bring these facilities to a operational readiness status to meet program milestones. Failure to bring facilities to the operational state will impact Constellation development schedules.											
Risk Owner (RO): James, Bonnie		Phone No. 256-544-6985		WBS: Facility_and_Asset_Intg		Likelihood	X	Safety	Performance	Schedule	Cost
Flights Affected:		Team Affected: CX, T_and_E_Facilities		3	2	4		4	4		
Mitigation Cost (\$M)											
Phase	High	Most Likely	Low	Budget Committed (\$M)		Total Threat (\$M)					
IOC	0	0	0	0		0					
CxLEO OPS	0	0	0	0		0					
HLR	0	0	0	0		0					
Post HLR	0	0	0	0		0					
Other	0	0	0	0		0					
Cost Breakdown:											
Closure/Acceptance Criteria: Established process for continuous identification of facility requirements, cost threats, and CoF document in Managed Assest Document (MAD).											
Closure/Acceptance Rationale:											



CxP Risk: 1165 Detail Report

Parent to 1202, 1553, 2175, 1107, 2181, 1109, 2249

Open Date: 08/07/2006

Status as of: March 19, 2009

ECD: 01/15/2009

Current Status: 12/4/2008

Mitigation Steps have changed since ERIC facility review completed. ERIC provides a solid understanding of facility needs. Risk was de-escalated from a TDR to a TProj risk at the 11/25/08 ESMD Quarterly and will remain open.

11/20/2008

1165 - Facilities Readiness. Action: 1165 - Facilities Readiness – de-escalation is approved
Action: Develop a Directorate-level infrastructure risk and link it to 1165 - Facilities Readiness

7/22/2008

Reviewed mitigation steps and ESMD action.

5/7/2008

As a result of recent events, risk to remain a top directorate risk per ESMD risk review held on 5/7/08. The mitigation plan needs to be updated to include the forward plan in getting an integrated view of the agency infrastructure challenges dealing with the MISR.

4/15/2008

Reviewed Risk statement and Mitigation plan. Updated Mitigation tasks. T&E is recommending a de-escalation from a TDR to a T&E TProjR. Facilities risk are carried under their appropriate projects. T&E will still monitor the facilities risks of other projects but do not feel the need to carry a future stagnant parent risk.

2/12/2008

List of Constellation required facilities were baselined and presented to SCAP and CxAMP. Working within PET to solidify Level II and Level III Roles and Responsibilities related to Facilities. Facility PPBE guidance incorporated into Program PPBE guidance. CoF due diligence in draft ready to release to Projects for feedback.



CxP Risk: 1165 Detail Report Parent to 1202, 1553, 2175, 1107, 2181, 1109, 2249

Open Date: 08/07/2006

Status as of: March 19, 2009

ECD: 01/15/2009

12/11/2007

Reviewed Risk and Mitigation Steps

9/26/2007

Baselined CoF process as a directive. Working with Projects to form a consensus on how to create and utilize an integrated facility schedule. In the process of working with the Projects to update their planning references which will then baseline the integrated facility schedule. To date, the Managed Asset Document is 70% complete. Updated Mitigation Plan and Context to address upgraded facilities and new construction.

7/2/2007

Milestones slipped to allow projects to mature enough to obtain post SRR and PMR data. Getting ready to baseline Integrated Facility Schedule 7/27.

3//2007

Updated mitigation plan to reflect current events and presentations

2/21/2007

The Cx CAMP Charter has been approved the the first CAMP was held on 2/13. The Cx CoF draft process has been included in the 07 PPBE cycle. TIGs have draft planning reference schedules which will mature as projects mature with SRRs and facility trades. ECD updates on tasks.

12/06/2006 Updated Mitigation Task Descriptions to reflect new estimated completion dates as a result of delay of Program wide consensus for CAMP charter.

11/09/2006 Detailed Mr. Robert Kehoe from Center Operations to assist in Facility Readiness Cost Planning and Scheduling. Updated Mitigation Status to address deferred maintenance.

10/4/06 CAMP Charter is currently scheduled for 10/25/06 CxCB. Mitigation Plan was modified to include PMR Review and Input / development of a CAMP CoF Process. PMR Rev 2 draft was presented to management.

8/24/2006



CxP Risk: 1165 Detail Report
Parent to 1202, 1553, 2175, 1107, 2181, 1109, 2249

Open Date: 08/07/2006

Status as of: March 19, 2009

ECD: 01/15/2009

Approved at 8/23/06 CxCB for escalation to Top Program Risk.

8/18/2006

CAMP Charter released for review; scheduled for 08/23/06 CxCB.

8/7/2006

Requesting that TPR Risk 1136 – Gap in Facilities Funding to Accommodate CxP (PP&C) be linked as a child to this risk

Requesting that TProjR 1107 – Test Facilities Readiness be linked as a child to this risk

Requesting that TProjR 1109 – SSP Transition Risk to Cx (OpsIntg) be linked as a child to this risk



CxP Risk: 1165 Detail Report Parent to 1202, 1553, 2175, 1107, 2181, 1109, 2249

Open Date: 08/07/2006

Status as of: March 19, 2009

ECD: 01/15/2009

Cost Summary

Phase	FY	Hi Mit. (\$M)	Most Like. Mit. (\$M)	Lo Mit. (\$M)	Budget Committed (\$M)	Comments
IOC						
IOC Total		0	0	0	0	
CxLEO OPS						
CxLEO OPS Total		0	0	0	0	
HLR						
HLR Total		0	0	0	0	
Post HLR						
Post HLR Total		0	0	0	0	
Other						
Other Total		0	0	0	0	
Totals (\$M)		0	0	0	0	



CxP Risk: 1165 Detail Report

Parent to 1202, 1553, 2175, 1107, 2181, 1109, 2249

Open Date: 08/07/2006

Status as of: March 19, 2009

ECD: 01/15/2009

Mitigation Summary

Mitigation Plan Overview: Coordinate with Projects to identify near-term facility needs and a long-term process (Managed Asset Document) to maintain constant awareness of facility needs threats.

Fallback Plan Overview:

Task No.	Task Description	WBS	Individual	ECD	ACD	Resulting Magnitude	Success Criteria
						L x C	
1	Support PMR Rev 2 to initially identify Facility liens	T&V	gxenosfos	10/15/2006	10/25/2006	4 x 4 red	PMR Rev 2 Review concurrence
2	Establish the Constellation Asset Management Panel	T&V	dfender	12/6/2006	12/6/2006	3 x 4 yellow	Charter approved by CxCB
3	Develop CAMP CoF call and support other Constellation and Agency CoF	T&V	dfender	3/8/2007	3/8/2007	3 x 4 yellow	Release with PPBE Guidelines
4	Baseline planning references from projects	T&V	dfender	4/17/2007	4/17/2007	3 x 4 yellow	All Projects complete input
5	Baseline list of facilities gaps and overlaps in utilization and funding	T&V	dfender	4/17/2007	4/17/2007	3 x 4 yellow	Roll-up of Gaps Identified and presentation to Cx
6	CxCB to release directive for CoF Process	Test_and_Verification	dfender	8/1/2007	9/19/2007	3 x 4 yellow	Signed by CxP Program Manager
7	Identify needed facilities to SCAP - Initial list	Test_and_Evaluation	dfender	11/27/2007	11/27/2007	3 x 4 yellow	A list of facilities required by CxP
8	Present official list of needed facilities at the CxAMP	Test_and_Evaluation	dfender	12/14/2007	12/14/2007	3 x 4 yellow	Initial input from Projects –facility list will continue to mature with program



CxP Risk: 1165 Detail Report

Parent to 1202, 1553, 2175, 1107, 2181, 1109, 2249

Open Date: 08/07/2006

Status as of: March 19, 2009

ECD: 01/15/2009

9	Establish PPBE guidance for Facilities (at Program level)	Test_and_Evaluation	dfender	12/15/2007	12/15/2007	3 x 4 yellow	Facility guidance released from PP&C
10	Distribute Draft Program Executive Team (PET) CxAMP document	T&V	dfender	2/5/2008	2/5/2008	3 x 4 yellow	meet with each project and negotiate content
11	Release PET CxAMP scenario	Test_and_Evaluation	dfender	2/20/2008	2/20/2008	3 x 4 yellow	PET approves CxAMP scenario
12	Final version of PET CxAMP scenario	Test_and_Evaluation	ktemplin	5/15/2008	5/15/2008	2 x 3 yellow	Approved and added to PET document
13	PPBE '08	Test_and_Verification	dfender	6/1/2008	5/15/2008	2 x 4 yellow	Baseline established for facility funding; new risks generated for unfunded gaps.
14	Completed ERIC review.	Test_and_Verification	ktemplin	8/29/2008	8/29/2008	3 x 4 yellow	ERIC brief to CxAMP. CxAMP maintaining.. ERIC data on Wiki.
15	Review CoF projects for PPBE II	Facility_and_Asset_Intg	bjames	1/16/2009		3 x 4 yellow	CoF briefed to CxAMP
16	Baseline CoF Due Diligence Document	Test_and_Evaluation		2/1/2009		3 x 4 yellow	Present final CoF guidance at CxAMP
17	Roll ERIC results into PPBE II budget	Facility_and_Asset_Intg	bjames	2/28/2009		3 x 4 yellow	Funding requirements approved or risk accepted



CxP Risk: 1165 Detail Report
Parent to 1202, 1553, 2175, 1107, 2181, 1109, 2249

Open Date: 08/07/2006

Status as of: March 19, 2009

ECD: 01/15/2009

Safety Information

Safety Assessor:	S&MA Escalation:	S&MA Risk Score:	Ready for Review:
Safety Risk?			
Rationale:			
Agree With Risk Characterization?			
Risk Characterization Rationale:			
Agree With Risk Mitigation Plant?			
Risk Mitigation Plan Rationale:			
Has Coordination With Risk Owner Started?			
Risk Owner Coordination Status:			



CxP Risk: 1558 Detail Report Parent to 2046 | Child to 3144

Open Date: 12/05/2006

Status as of: March 19, 2009

ECD: 07/02/2009

Title: Schedule Impact to Ares 1-X Due to Shuttle Operations		Status: Open	Escalation: None	Timeframe: Near	Risk Source:				
Statement: Given the fact that Shuttle operations will continue through 2010, and this work takes priority over facility and GSE modifications for Constellation; there is a possibility that significant changes or delays in Shuttle schedules will delay completion of this project beyond the ARES I-X ORD date.									
Context: Changes in the Shuttle manifest could affect transfer of SSP assets (MLP, VAB, Pad) for use by Ares 1-X. Also, following the beginning of Ares 1-X GS activities, due to Shuttle operations, there are several periods in which the work site could be closed to construction contractors or access to the facility be limited.									
Risk Owner (RO): Stelzer, Mike	Phone No. 321-867-4987	WBS: GO_LV_IV_Ares_1X		Likelihood	X	Safety	Performance	Schedule	Cost
Flights Affected: ARES-1X		Team Affected: GO_LV_IV_Ares_1X, T_and_E_Facilities		5		0	2	2	2
Mitigation Cost (\$M)									
Phase	High	Most Likely	Low	Budget Committed (\$M)		Total Threat (\$M)			
IOC	0	0	0	0		0			
CxLEO OPS	0	0	0	0		0			
HLR	0	0	0	0		0			
Post HLR	0	0	0	0		0			
Other	0	0	0	0		0			
Cost Breakdown:									
Closure/Acceptance Criteria:									
Closure/Acceptance Rationale:									
Current Status: 3/18/2009									
Monitoring shuttle manifest/schedule updates post STS-119 launch for release of assets to Ares I-X. MLP-1 AIX activities have resumed. Shuttle Program is targeting HST/STS-125 for a May 2009 launch.									



CxP Risk: 1558 Detail Report Parent to 2046 | Child to 3144

Open Date: 12/05/2006

Status as of: March 19, 2009

ECD: 07/02/2009

12/18/2008

Monitoring shuttle manifest/schedule updates post STS-126 launch for impacts to release of assets to Ares 1-X. Shuttle Program is targeting HST/STS-125 for a May 2009 launch. Mitigation plan updated to reflect latest dates.

11/18/2008

Monitoring shuttle manifest/schedule updates post STS-126 launch for impacts to release of assets to Ares 1-X following HST. Shuttle Program is targeting HST/STS-125 for a April/May 2009 launch. Mitigation plan updated to reflect latest dates.

10/14/2008

Monitoring shuttle manifest/schedule updates post STS-124 launch for impacts to release of assets to Ares 1-X following HST. Shuttle Program is targeting STS-125 for an early 2009 launch. Mitigation plan updated to reflect latest dates.

9/24/2008

Monitoring shuttle manifest/schedule updates post STS-124 launch for impacts to release of assets to Ares 1-X following HST. Shuttle Program is targeting STS-125 for a mid-October launch. Mitigation plan updated to reflect latest dates.

6/20/2008

Monitoring shuttle manifest/schedule updates post STS-124 launch for impacts to release of assets to Ares 1-X following HST. Current Shuttle manifest shows a 1-2 month delay to the HST mission, which would result in a delay of MLP/VAB/Pad availability for Ares 1-X. Mitigation plan updated to reflect latest dates.

3/26/2008

Monitoring shuttle manifest/schedule updates post STS-123 launch for impacts to asset transfers to Ares 1-X following HST. Current Shuttle manifest options include a 1-3 month delay to the HST mission, which would result in a delay of MLP/VAB/Pad asset transfer to Ares 1-X. Likelihood of this risk occurring raised from 4 to 5. Risk 1178 to cover impacts to CxP long term activities. This risk rescored to focus on impact to Ares 1-X, schedule/cost/performance consequence changed from 3 to 2.



CxP Risk: 1558 Detail Report Parent to 2046 | Child to 3144

Open Date: 12/05/2006

Status as of: March 19, 2009

ECD: 07/02/2009

2/25/2008

Monitoring shuttle manifest/schedule updates post STS-122 launch for impacts to asset transfers to Ares 1-X following HST. Schedule consequence adjusted from 4 to 3 to match up with Ares 1-X baselined risk plan, mitigation plan updated to reflect scoring and buy down.

2/22/2008

Associated Risk 1638 - HST LON Slip Impact on Pad B and 1792 - Ares I-X Schedule Slip Impact on Pad Construction Schedule with this risk at GS RRP on 2/19/08 per GS RRP Vice Chair

1/9/2008

This risk has been identified as a watch item. The next mitigation step is "Monitor shuttle manifests & processing schedules and determine potential impacts to Ares I-X.", which is scheduled to be complete in April, 2009 - kf.

10/5/2007

Updated mitigation plan and status to reflect that this risk is in watch mode.

9/5/2007

GS IPT met on 9/5/07 and concluded likelihood should be raised from 3 to 4.

8/15/2007

Risk 2046 [Given the transition of the MLP from Shuttle to CxP has been slipped and the CCC Ares I-X schedule is dependent on access to the MLP for installation of the GCS and GC3 equipment; there is a possibility that limited access to the MLP (NIB to Shuttle operations) may impact the CCC Ares I-X development schedule.] has been combined into this risk.

6/15/2007



CxP Risk: 1558 Detail Report Parent to 2046 | Child to 3144

Open Date: 12/05/2006

Status as of: March 19, 2009

ECD: 07/02/2009

No significant impacts to Ares I-X have been identified from Shuttle Manifest decision.

5/11/2007

Shuttle is in the process of identifying manifest options, with one to be selected around late May. LX-D has provided Ares I-X impacts to the proposed manifests:

The early HST option (30C) has the least impact, however MLP 1 Turnover will occur 9 days past our need date.

Option (31) has the following Ares I-X impacts:

VAB HB 3 Turnover is 47 days after our need date (10/01/2008)

MLP 1 Turnover is 30 days after our need date (09/02/2008)

Pad B Turnover is 110 days after our need date (10/01/2008)

Ares I-X MLP and Pad mods may include (increasing likelihood):

lightning mast extension, ECS mods (possible T-0 if avionics doesn't place fans on components), Pad arms, wind damper/rollout stabilization (uncertainty if T-0 required), MLP exhaust hole covers and water sound suppression system (flame deflector, etc.) mods as a result of MLP hole covers. All of this will be a significant schedule challenge further complicated by any delays in turnover.

4/11/2007

STS-117 has been rescheduled to June 8th following the ET hail damage/ongoing repairs. Manifest will be monitored to determine any resulting launch slips / impacts to Ares I-X development/operations efforts.

3/22/2007

Demoted back to project risk from P-TSR - kf.

3/16/2007

Monitoring potential schedule impacts as result of STS-117 ET hail damage, HST LON, and Shuttle processing in the VAB during 01/2009 timeframe.

3/6/2007



CxP Risk: 1558 Detail Report Parent to 2046 | Child to 3144

Open Date: 12/05/2006

Status as of: March 19, 2009

ECD: 07/02/2009

Changed from Candidate to Risk per Ruth Gardner at LX-D PMR 2/20/07 kf



CxP Risk: 1558 Detail Report Parent to 2046 | Child to 3144

Open Date: 12/05/2006

Status as of: March 19, 2009

ECD: 07/02/2009

Cost Summary

Phase	FY	Hi Mit. (\$M)	Most Like. Mit. (\$M)	Lo Mit. (\$M)	Budget Committed (\$M)	Comments
IOC						
	FY07	0	0	0	0	TBD.
	FY08	0	0	0	0	TBD.
	FY09	0	0	0	0	TBD.
IOC Total		0	0	0	0	
CxLEO OPS						
CxLEO OPS Total		0	0	0	0	
HLR						
HLR Total		0	0	0	0	
Post HLR						
Post HLR Total		0	0	0	0	
Other						
Other Total		0	0	0	0	

Totals (\$M)	0	0	0	0
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CxP Risk: 1558 Detail Report Parent to 2046 | Child to 3144

Open Date: 12/05/2006

Status as of: March 19, 2009

ECD: 07/02/2009

Mitigation Summary

Mitigation Plan Overview: Monitor shuttle manifests/schedules for potential impacts to Ares 1-X need dates and GS implementation schedules.

Fallback Plan Overview:

Task No.	Task Description	WBS	Individual	ECD	ACD	Resulting Magnitude	Success Criteria
						L x C	
1	Monitor for any slips in HST LON and changes to Shuttle Manifest date based upon hail damage delays and Shuttle launch now set for June.	ARES-I-1	browncm	6/1/2007	6/15/2007	4 x 4 red	Hail damage impact understood
2	Adjust schedule impact in accordance with released Ares 1-X risk plan.	GO_LV_I V_Ares_1 X	cowartjn	2/25/2008	2/25/2008	4 x 3 yellow	Risk updated
3	Recent Shuttle Program manifest options show a 1-3 month delay to the HST mission, increasingly the likelihood of an impact to Ares 1-X. Risk 1178 to cover long term Cx GS development impacts. Risk re-scored from a 4x3 to a 5x2.	GO_LV_I V_Ares_1 X	cowartjn	4/1/2008	4/1/2008	5 x 2 yellow	Risk updated
4	Release of the VAB HB, MLP & Pad from Shuttle to Ares 1-X.	GO_LV_I V_Ares_1 X	stelzsj	6/11/2009		3 x 2 green	Shuttle assets available for Ares 1-X.



CxP Risk: 1558 Detail Report Parent to 2046 | Child to 3144

Open Date: 12/05/2006

Status as of: March 19, 2009

ECD: 07/02/2009

5	Monitor shuttle manifests & processing schedules and determine potential impacts to Ares I-X.	ARES-I-1	stelzmj	7/2/2009		0 x 2	No SSP schedule impacts to Ares 1-X GS readiness.
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CxP Risk: 1558 Detail Report Parent to 2046 | Child to 3144

Open Date: 12/05/2006

Status as of: March 19, 2009

ECD: 07/02/2009

Safety Information

Safety Assessor:	S&MA Escalation:	S&MA Risk Score:	Ready for Review:
Safety Risk?			
Rationale:			
Agree With Risk Characterization?			
Risk Characterization Rationale:			
Agree With Risk Mitigation Plan?			
Risk Mitigation Plan Rationale:			
Has Coordination With Risk Owner Started?			
Risk Owner Coordination Status:			



CxP Risk: 1633 Detail Report

Open Date: 01/12/2007

Status as of: March 19, 2009

ECD: 03/01/2012

Title: Pad B assets condition at time of SSP turnover.		Status: Open	Escalation: None	Timeframe: Far	Risk Source:				
Statement: Given the Pad B refurbishment budget is based on a preliminary assessment; there is a possibility that the systems could require more work than anticipated.									
Context: Conditions of infrastructure at Pad B may be worse than anticipated in original budget planning activities. This would cause an increase in funding needed to bring the Pad up to the needed condition level and impact schedule.									
Risk Owner (RO): Spellman, Regina	Phone No. 321-867-7907	WBS: GO_E_5_LPE		Likelihood	X	Safety	Performance	Schedule	Cost
Flights Affected:		Team Affected: GO_E_5_LPE, T_and_E_Facilities		3		0	2	0	3
Mitigation Cost (\$M)									
Phase	High	Most Likely	Low	Budget Committed (\$M)		Total Threat (\$M)			
IOC	0	0	0	0		0			
CxLEO OPS	0	1.2	0	0		1.2			
HLR	0	0	0	0		0			
Post HLR	0	0	0	0		0			
Other	0	0	0	0		0			
Cost Breakdown:									
Closure/Acceptance Criteria: Asset conditions are known, a needed Plan exists to ensure all required Pad systems will be in ready condition to support CLV and all required work is within baseline									
Closure/Acceptance Rationale:									
Current Status: 3/6/2009									
jlb-Continue to monitor the future launch activity- The HST LON is tentatively scheduled for 5/12/2009. Ares 1X has a tentative date of 7/11/2009.									



CxP Risk: 1633 Detail Report

Open Date: 01/12/2007

Status as of: March 19, 2009

ECD: 03/01/2012

2/9/2009

jlb- Monitoring the future launch activity- The HST LON is tentatively scheduled for 5/12/2009. Ares 1X has a tentative date of 7/11/2009.

1/7/2009

jlb- Continue to monitor the future HST LON and Ares 1X activity. The Space Shuttle HST LON is not officially manifested, however, the expected launch date is 5/12/2009. Ares 1X is tentatively scheduled for 7/11/2009.

12/12/2008

jlb- Continue to monitor the expected HST LON activity. The Space Shuttle HST LON is not officially manifested, however, the expected launch date is 5/12/2009.

11/17/2008

Continue to monitor the HST LON schedule. The Space Shuttle HST LON is not officially manifested, however, it has been announced that the HST payload repair kit will arrive at KSC no earlier than mid April. Thus the HST LON is expected to occur no earlier than May 2009.

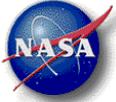
10/20/2008

jlb- Continue to monitor the HST LON schedule (now scheduled for no earlier than February/2009) in accordance with mitigation steps #3 and #4.

9/25/2008

jlb- Closed mitigation steps 1 and 2 as the Shuttle Management Resource Transition (SMRT) LC39 document was approved at the GSCB on 9/4/2008 and resides on the NASA KSC Transition web page. It is currently in the sign off loop. Began acquisition process for FY09 maintenance for which LPE is responsible. Added mitigation step for FY10 and beyond maintenance planning which will occur in the future.

9/8/2008



CxP Risk: 1633 Detail Report

Open Date: 01/12/2007

Status as of: March 19, 2009

ECD: 03/01/2012

jlb- Updated mitigation step #2 as the SMRT will be released in October 2008 and the team is actively receiving and negotiating O&M for those parts LPE is responsible at LC39B.

8/25/2008

jlb-The SMRT will be released in October 2008 and the team is actively receiving and negotiating O&M for those parts LPE is responsible for at LC39B. Mitigation step #3 updated to reflect the October status date.

7/16/2008

jlb- Updated Mitigation step 1 ECD date for the review of the SMRT and maintenance plan to correlate with the future BMAR submittal as it relates to the prioritizing of the pad related repairs referred to in the mitigation step.

6/23/2008

jlb- Updated mitigation step #2 ECD date to reflect the expected completion of the correlation of the LPE baseline, SMRT and maintenance plan.

6/6/2008

6/6/2006

jlb- Added information to mitigation steps 1 and 2 pertaining to the Infrastructure study, Constellation BMAR list, and system requirement items identified for the Electrical items listed in this risk. Updated ECD date for mitigation step 1 to reflect the ERB date of 6/11/08. Updated mitigation step 1 & 2 ECD date to 7/15/08 for the review of the SMRT and maintenance plan. Added cost data from the estimates identified in the Infrastructure study.

4/4/2008

c.mako continue to work with PH in the SMRT document development process.

2/15/2008



CxP Risk: 1633 Detail Report

Open Date: 01/12/2007

Status as of: March 19, 2009

ECD: 03/01/2012

clm synchronized LxC on general tab with mitigation steps which added a consequence of 3 to Cost. At this time, we know via preliminary DTEST data and preliminary PPBE BTL estimates the real cost of this is approximately \$13-14 million. At the next RRP, would like to request increase in cost consequence to 4 which would be consistent with the matrix. Additionally, since there are four items related to this going forward at BTL's, we need to set the cost threat flag. The four items are slide wire removal, Halon removal and wet pipe installation, decommissioning, and electrical demolition. Lastly, changed risk relationships from parent child to associated for risks 1632 and 1722.

1/9/2008

Pad B SMRT kickoff meeting held 12/17/07. SMRT team members identified and will begin regularly scheduled meetings by the end of January. Updated LXC on mitigation steps 2 and 3 from 2X2 at completion to 1X2 at completion for cost. clm

10/19/2007

C. Mako participated in kickoff meeting with PH to update SMRT (Shuttle Management Resource Transition) document which will detail all the Pad systems to be turned over to Cx from SSP, the condition of each, and the recommended maintenance plan. Updated closure/acceptance criteria and mitigation steps. Made a child to 1632 - Pad BMAR.

10/1/2007

clm updated ECD and timeframe to reflect timing of mitigation steps. currently working on SOW development for infrastructure study to complete first mitigation step.

C3 and S2 score removed pending assessment results and performance was scored a 2 at GS RRP on 10/2/07 - kf.

8/7/2007

Team reduced LxC based on updated knowledge of some systems.

7/6/2007

RLS - LH2 sphere risk opened. Continue to watch other assets.

4/11/2007



CxP Risk: 1633 Detail Report

Open Date: 01/12/2007

Status as of: March 19, 2009

ECD: 03/01/2012

LH2 sphere refurbishment may be more extensive than planned. May consider adding a child to this risk and LH2 sphere refurbishment.

1/12/2007

Initiated by Cheryle Mako, 1/12/07



CxP Risk: 1633 Detail Report

Open Date: 01/12/2007

Status as of: March 19, 2009

ECD: 03/01/2012

Cost Summary

Phase	FY	Hi Mit. (\$M)	Most Like. Mit. (\$M)	Lo Mit. (\$M)	Budget Committed (\$M)	Comments
IOC						
IOC Total		0	0	0	0	
CxLEO OPS						
	FY11	0	1.2	0	0	This cost data was based on the estimate pertaining to the Catacomb walls, holding ponds, flumes, and concrete slopes.
CxLEO OPS Total		0	1.2	0	0	
HLR						
HLR Total		0	0	0	0	
Post HLR						
Post HLR Total		0	0	0	0	
Other						
Other Total		0	0	0	0	

Totals (\$M)		0	1.2	0	0	
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CxP Risk: 1633 Detail Report

Open Date: 01/12/2007

Status as of: March 19, 2009

ECD: 03/01/2012

Mitigation Summary

Mitigation Plan Overview: Determine what the current condition actually is and work with the Shuttle program to identify which systems are most critical and must be worked.

Fallback Plan Overview: Request additional funding for BMAR

Task No.	Task Description	WBS	Individual	ECD	ACD	Resulting Magnitude	Success Criteria
						L x C	
1	Evaluate current conditions of select pad equipment and prioritize repairs and determine partnering opportunities with SSP - Update SMRT document, identify equipment out of certification and requiring recertification) and acquire maintenance plan	PAD-B	makocl	10/15/2008	9/4/2008	3 x 3 yellow	updated SMRT (Shuttle Management Resource Transition) document and proposed maintenance plan delivered
2	Correlate LPE baseline , SMRT, and maintenance plan	PAD-B	makocl	10/15/2008	9/4/2008	1 x 1 green	assessment complete and condition of Pad systems and maintenance plan found to be withing LPE baseline
3	Conduct maintenance to support CLV (post HST LON) in FY10 and beyond.	GO_E_5_ LPE	makocl	3/1/2012		1 x 1 green	maintenance prior to CLV complete
4	Conduct maintenance to support CLV (post HST LON) in FY09	PAD-B	makocl	3/1/2012		1 x 1 green	maintenance prior to CLV complete



CxP Risk: 1633 Detail Report

Open Date: 01/12/2007

Status as of: March 19, 2009

ECD: 03/01/2012

Safety Information

Safety Assessor:	S&MA Escalation:	S&MA Risk Score:	Ready for Review:
Safety Risk?			
Rationale:			
Agree With Risk Characterization?			
Risk Characterization Rationale:			
Agree With Risk Mitigation Plan?			
Risk Mitigation Plan Rationale:			
Has Coordination With Risk Owner Started?			
Risk Owner Coordination Status:			



CxP Risk: 1956 Detail Report

Open Date: 04/13/2007

Status as of: March 19, 2009

ECD:

Title: Constellation Environmental Assurance		Status: Open		Escalation: None		Timeframe: None		Risk Source:			
<p>Statement: Given the continual issues with environmentally-related regulation and modification of materials and manufacturing processes and the need to mitigate obsolescence, performance and safety risks associated with such materials and processes; there is a possibility that there will be an excessive cost impact to the Constellation Program through duplication of uncoordinated, independent activities at the prime and subcontractor level to address these issues. Contractor lack of awareness of materials reformulation can result in risks to safety, performance, and schedule.</p>											
<p>Context: A budget threat exists to ensure Coordination with both Program-level mitigation strategies such as obtaining regulatory approval to continue using specific materials and Project-level mitigations such as stockpiling critical materials, evaluation of materials formulation changes, and phasing out regulated items through design and process changes.</p>											
Risk Owner (RO): Pedley, Michael		Phone No. 281-483-8913		WBS: Loads_SIG		Likelihood	X	Safety	Performance	Schedule	Cost
Flights Affected:		Team Affected: PPC, T_and_E_Facilities		3		3	3	3	3	3	
Mitigation Cost (\$M)											
Phase	High	Most Likely	Low	Budget Committed (\$M)		Total Threat (\$M)					
IOC	7.488	5.265	3.461	0		5.265					
CxLEO OPS	0	9.243	0	0		9.243					
HLR	0	0	0	0		0					
Post HLR	0	0	0	0		0					
Other	0	0	0	0		0					
Cost Breakdown:											
Closure/Acceptance Criteria:											
Closure/Acceptance Rationale:											
Current Status: 2/26/2009											



CxP Risk: 1956 Detail Report

Open Date: 04/13/2007

Status as of: March 19, 2009

ECD:

Shuttle has provided some funding to work this task as part of the shuttle transition FY '09 & '10. A shuttle environmental face-to-face meeting is scheduled for April 28-29, 2009. A draft of the CxP Environmental Assurance Plan document is complete, but we are waiting on approval to proceed. This risk is on hold pending PPBE '09.

1/20/2009

The status of this risk has not changed since the last update. (This risk is funded by Shuttle until the Shuttle Program ends and it does not look like there will be any further phase down in staffing until that point -- but we always knew that and had not requested CxP funding until then.)

11/16/2008

The status of this risk has not changed since the last update. (This risk is funded by Shuttle until the Shuttle Program ends and it does not look like there will be any further phase down in staffing until that point -- but we always knew that and had not requested CxP funding until then.)

9/8/2008

This risk is currently showing up as a cost threat for PTI. A PTI package was sent out and will be reviewed (date TBD). The mitigation of this risk is on hold pending further direction.

3/28/2008

Draft 2 of CxP Environmental Assurance Plan was reviewed with the authors on 2/25. Mike Pedley is expecting to receive DRAFT 3 at any time and will follow up with the authors of the Plan.

FY'09 PPBE package for SE&I did not fund the activities identified by this risk. Mitigation of this risk is on hold pending further direction.

1/31/2008

Draft of CxP Environmental Assurance Plan document based on NSTS 37345 has been prepared by RRAC personnel and is in review.

12/04/2007



CxP Risk: 1956 Detail Report

Open Date: 04/13/2007

Status as of: March 19, 2009

ECD:

Participated in Shuttle Environmental Assurance (SEA) meeting 12/4-12/5/07. Decided to create CxP Environmental Assurance Plan document based on NSTS 37345 – will have draft in place and will request funding at PPBE 08. Based on extensive side discussions during SEA meeting, "most likely" funding levels look to be appropriate and "minimum" funding will not work. Also noted that CxP needs to provide funding for RRAC (NASA Regulatory Risk and Communication Principal Center, located at MSFC) to prepare and maintain paperwork/petitions on continued use of restricted materials -- separate activity from CxP Environmental Assurance that does not belong under ISLM SIG.

9/18/2007

Risk cost updated to continue cost requirements at same level through FY20 (with 3%/year inflation factor). Cost requirements are expected to be essentially constant throughout the life of the Program but had previously been entered only through FY13. A few other items were cleaned up and the risk title was revised to "Constellation Environmental Assurance" instead of "Constellation Environmental Assessment."

9/11/2007

Risk was updated with revisions to risk statement and risk matrix (overall risk remained 3 x 3). Cost information was updated with previous "most likely" cost moved to "low" cost column. Revised most likely cost represents funding equivalent to current level of Shuttle funding from FY11. New "high" cost entry represents estimate by Shuttle Environmental Assurance lead and is comparable with level of Shuttle funding some years back.

Level II was briefed a few months ago and did accept the need (in principle) for a centralized CxP Environmental Assurance activity. A decision was made to transfer ownership of the risk to SE&I. Since materials and materials processes are directly impacted by these environmental issues and M&P is part of the ILSM SIG the risk was transferred to the ILSM SIG with Mike Pedley, the CxP M&P Lead as the owner. Formal transfer occurred 9/10/07.

5/2/2007

Waiting to brief Level II in May 2007



CxP Risk: 1956 Detail Report

Open Date: 04/13/2007

Status as of: March 19, 2009

ECD:

Cost Summary

Phase	FY	Hi Mit. (\$M)	Most Like. Mit. (\$M)	Lo Mit. (\$M)	Budget Committed (\$M)	Comments
IOC						
	FY11	1.794	1.268	0.83	0	Most likely assumes 2.0 FTE CS; 4.0 WYE Support Contractor plus \$42k travel (CS and contractor), supplies & materials. Low cost assumes 2.0 WYE Support Contractor. High assumes 6.0 WYE Support Contractor, 2.5 FTE CS.
	FY12	1.843	1.303	0.853	0	Most likely assumes 2.0 FTE CS; 4.0 WYE Support Contractor plus \$43k travel (CS and contractor), supplies & materials. Low cost assumes 2.0 WYE Support Contractor. High assumes 6.0 WYE Support Contractor, 2.5 FTE CS.
	FY13	1.897	1.327	0.876	0	Most likely assumes 2.0 FTE CS; 4.0 WYE Support Contractor plus \$40k travel (CS and contractor), supplies & materials. Low cost assumes 2.0 WYE Support Contractor. High assumes 6.0 WYE Support Contractor, 2.5 FTE CS.
	FY14	1.954	1.367	0.902	0	
IOC Total		7.488	5.265	3.461	0	
CxLEO OPS						
	FY15	0	1.412	0	0	Most likely assumes 2.0 FTE CS; 4.0 WYE Support Contractor plus \$42k travel (CS and contractor), supplies & materials. Low cost assumes 2.0 WYE Support Contractor. High assumes 6.0 WYE Support Contractor, 2.5 FTE CS.
	FY16	0	1.462	0	0	Most likely assumes 2.0 FTE CS; 4.0 WYE Support Contractor plus \$42k travel (CS and contractor), supplies & materials. Low cost assumes 2.0 WYE Support Contractor. High assumes 6.0 WYE Support Contractor, 2.5 FTE CS.
	FY17	0	1.513	0	0	Most likely assumes 2.0 FTE CS; 4.0 WYE Support Contractor plus \$42k travel (CS and contractor), supplies & materials. Low cost assumes 2.0 WYE Support Contractor. High assumes 6.0 WYE Support Contractor, 2.5 FTE CS.
	FY18	0	1.566	0	0	Most likely assumes 2.0 FTE CS; 4.0 WYE Support Contractor plus \$42k travel (CS and contractor), supplies & materials. Low cost assumes 2.0 WYE Support Contractor. High assumes 6.0 WYE Support Contractor, 2.5 FTE CS.
	FY19	0	1.612	0	0	Most likely assumes 2.0 FTE CS; 4.0 WYE Support Contractor plus \$42k travel (CS and contractor), supplies & materials. Low cost assumes 2.0 WYE Support Contractor. High assumes 6.0 WYE Support Contractor, 2.5 FTE CS.
	FY20	0	1.678	0	0	Most likely assumes 2.0 FTE CS; 4.0 WYE Support Contractor plus \$42k travel (CS and contractor), supplies & materials. Low cost assumes 2.0 WYE Support Contractor. High assumes 6.0 WYE Support Contractor, 2.5 FTE CS.



CxP Risk: 1956 Detail Report

Open Date: 04/13/2007

Status as of: March 19, 2009

ECD:

CxLEO OPS Total		0	9.243	0	0	
HLR						
HLR Total		0	0	0	0	
Post HLR						
Post HLR Total		0	0	0	0	
Other						
Other Total		0	0	0	0	

Totals (\$M)	7.488	14.508	3.461	0
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CxP Risk: 1956 Detail Report

Open Date: 04/13/2007

Status as of: March 19, 2009

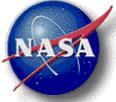
ECD:

Mitigation Summary

Mitigation Plan Overview: Brief Level II organizations in May 2007 with goal of validating need for CxEA coordination at Level II and identifying which organization should own the requirement. Obtain funding for centralized management of activity at Level II and set up team with active CS and Prime Contractor participation from all CxP Projects and Elements actively designing and building flight hardware. Close risk when functioning CxP Environmental Assurance team exists and track specific environmentally-driven risks separately.

Fallback Plan Overview: Allow each Project/Element to work environmental issues individually. Potential consequences are excessive duplication of work, resulting in excessive cost to program, and failure to identify significant materials formulation changes, leading to cost, schedule, and hardware performance risks.

Task No.	Task Description	WBS	Individual	ECD	ACD	Resulting Magnitude	Success Criteria
						L x C	
1	CxCB approval and resources Plan	PP&C	jrhatiga	6/17/2007	6/17/2007	3 x 3 yellow	Have CxCB approval and resources Plan.
2	Identify Level II Office to manage this	PP&C	jrhatiga	5/21/2007	8/13/2007	3 x 3 yellow	Have concurrence with new level II office to transfer risk.
3	Transfer ownership of risk to SE&I, ILSM SIG	SEI	mdpedley	8/31/2007	9/10/2007	3 x 3 yellow	Identify a risk owner by name.
4	Establish detailed scope of activity through meetings and telecons with Shuttle Environmental Assurance lead (Steve Glover/MSFC). Refine cost estimate based on detailed scope.	SEI	mdpedley	12/19/2007	12/19/2007	3 x 3 yellow	Detailed scope of activity is established. Refined cost estimate.



CxP Risk: 1956 Detail Report

Open Date: 04/13/2007

Status as of: March 19, 2009

ECD:

5	Brief Projects, Elements, and Prime Contractors on CxPEA function and set up team to work integrated environmental issues with active contractor participation.	SEI	mdpedley	4/30/2009		1 x 1 green	Team is set up to work integrated environmental issues.
6	Create CxP Environmental Assurance Plan document based on NSTS 37345, Program Management Plan for Shuttle Environmental Assurance Initiative -- complete draft in time to support PPBE.	Loads_SI G	mdpedley	6/30/2009		2 x 2 green	CxP Environmental Assurance Plan draft is complete.
7	Obtain CxCB approval of proposed task, together with funding for CxPEA activity starting in FY11	SEI	mdpedley	3/24/2010		2 x 2 green	Received CxCB approval of proposed task with funding for CxPEA activity.
8	Close risk and track specific environmentally driven risks individually as they arise	Loads_SI G	mdpedley	10/31/2012		0 x 0	



CxP Risk: 1956 Detail Report

Open Date: 04/13/2007

Status as of: March 19, 2009

ECD:

Safety Information

Safety Assessor:	S&MA Escalation:	S&MA Risk Score:	Ready for Review:
Safety Risk?			
Rationale:			
Agree With Risk Characterization?			
Risk Characterization Rationale:			
Agree With Risk Mitigation Plant?			
Risk Mitigation Plan Rationale:			
Has Coordination With Risk Owner Started?			
Risk Owner Coordination Status:			



CxP Risk: 1638 Detail Report Child to 1178

Open Date: 01/12/2007

Status as of: March 19, 2009

ECD: 05/31/2009

Title: HST LON Slip Impact on Pad B		Status: Open	Escalation: None	Timeframe: Far	Risk Source:				
Statement: Given the potential for HST LON to slip launch date; there is a possibility that the Pad B development will not be completed in time to meet ORD.									
Context: If the HST LON slips, this will impact the time available to conduct Pad B development work.									
Risk Owner (RO): Spellman, Regina	Phone No. 321-867-7907	WBS: GO_E_5_LPE		Likelihood	X	Safety	Performance	Schedule	Cost
Flights Affected:		Team Affected: GO_E_5_LPE, T_and_E_Facilities		4		0	2	3	2
Mitigation Cost (\$M)									
Phase	High	Most Likely	Low	Budget Committed (\$M)		Total Threat (\$M)			
IOC	0	0	0	0		0			
CxLEO OPS	0	0	0	0		0			
HLR	0	0	0	0		0			
Post HLR	0	0	0	0		0			
Other	0	0	0	0		0			
Cost Breakdown:									
Closure/Acceptance Criteria: Either HST launched on time or Pad ORD and budget adjusted to accommodate slip									
Closure/Acceptance Rationale:									
Current Status: 3/18/2009									
jlb- Adjusted the ECD date for mitigation step #2 in accordance with the HST LON mission which is tentatively scheduled for May 12, 2009. -----									



CxP Risk: 1638 Detail Report Child to 1178

Open Date: 01/12/2007

Status as of: March 19, 2009

ECD: 05/31/2009

3/2/2009

jlb- The large lift crane has completed the construction of the 3 lightning towers. The HST LON mission is tentatively scheduled for May 12, 2009.

2/2/2009

jlb- The large lift crane has completed 2 of the 3 lightning towers and is currently being moved to the final tower. Lift operations may start as early as 2/6/2009. The HST LON mission is tentatively scheduled for May 12, 2009.

1/7/2009

jlb- Continue to monitor the HST LON mission which is tentatively scheduled for May 12, 2009.

12/17/2008

The large lift crane is currently being assembled at the Pad. Continue to monitor the HST LON schedule. The Space Shuttle HST LON is not officially manifested, however, it has been announced that the HST payload repair kit will arrive at KSC no earlier than mid April. Therefore, the assumption is that the HST launch will occur no earlier than May 2009.

11/24/2008

jlb-The Space Shuttle HST LON is not officially manifested, however, it has been announced that the HST payload repair kit will arrive at KSC no earlier than mid April. Therefore, the assumption is that the HST launch will occur no earlier than May 2009. Updated mitigation step #2 to reflect this change.

11/5/2008

jlb- Updated Mitigation step 2 ECD date to reflect the continued monitoring of the HST Lon Mission launch date.

10/14/2008

jlb- HST mission has been delayed until February 09 or possibly May of '09. Continue to monitor the Ares 1-X manifest date. Expected hardware delivery date is 4/15/09.



CxP Risk: 1638 Detail Report Child to 1178

Open Date: 01/12/2007

Status as of: March 19, 2009

ECD: 05/31/2009

9/19/2008

-jlb Space Shuttle Endeavour has been rolled out to Pad 39B in support to the HST LON mission. Expected launch date for the HST mission is 10-Oct-08. Continue to monitor the Ares 1-X manifest date. FRR date of 10-Oct expected to slip due to Hurricane Ike impact to JSC. Expected hardware delivery date is 4/15/09.

8/18/2008

jlb- Continue to monitor the HST LON ET delivery issues and subsequent 2 month delay to HST LON and Ares 1 The performance and cost consequences remained unchanged.

7/16/2008

jlb- Continue to monitor the HST LON ET delivery issues and subsequent 2 month delay to HST LON and Ares 1 The performance and cost consequences remained unchanged.

6/6/2008

jlb-continue to monitor the HST LON ET delivery issues and subsequent 2 month delay to HST LON and Ares 1 The performance and cost consequences remained unchanged.

4/1/2008

c. mako due to HST LON ET delivery issues and subsequent 2 month delay to HST LON and Ares 1-X, the likelihood was upgraded from a 2 to a 4 while the consequence for schedule rose from a 2 to a 3. The performance and cost consequences remained unchanged.

2/15/2008

clm synchronized LXC on general tab with LXC in mitigation area. Added a "2" for performance consequence on the general tab. Continue to watch manifest. Made 1178 an associated risk rather than a parent risk.



CxP Risk: 1638 Detail Report Child to 1178

Open Date: 01/12/2007

Status as of: March 19, 2009

ECD: 05/31/2009

1/9/2008

This risk has been identified as a watch item. The next mitigation step is to "coordinate with SSP and watch manifest", which is scheduled to be complete in November, 2008 - kf.

10/31/2007

C. Mako added closure/acceptance criteria, mitigation overview and mitigation steps. Completed mitigation task #1 to incorporate impact minimization content in the Lightning Protection Contract.

7/6/2007

SSP announced new HST launch date of August 7, 2008, although this date is not a guarantee. Will continue to watch the manifest.

5/3/2007

C. Mako Continue to watch Shuttle manifest.

1/12/2007

Initiated by Regina Spellman 1/12/07



CxP Risk: 1638 Detail Report Child to 1178

Open Date: 01/12/2007

Status as of: March 19, 2009

ECD: 05/31/2009

Cost Summary

Phase	FY	Hi Mit. (\$M)	Most Like. Mit. (\$M)	Lo Mit. (\$M)	Budget Committed (\$M)	Comments
IOC						
IOC Total		0	0	0	0	
CxLEO OPS						
CxLEO OPS Total		0	0	0	0	
HLR						
HLR Total		0	0	0	0	
Post HLR						
Post HLR Total		0	0	0	0	
Other						
Other Total		0	0	0	0	
Totals (\$M)		0	0	0	0	



CxP Risk: 1638 Detail Report Child to 1178

Open Date: 01/12/2007

Status as of: March 19, 2009

ECD: 05/31/2009

Mitigation Summary

Mitigation Plan Overview: Watch SSP manifest and plan/award contracts such that the impact of a launch delay is minimized.

Fallback Plan Overview:

Task No.	Task Description	WBS	Individual	ECD	ACD	Resulting Magnitude	Success Criteria
						L x C	
1	Plan/award Lightning Protection construction contract such that the impact of HST launch delay is minimized	PAD-B	makocl	8/30/2007	8/30/2007	2 x 2 green	Contract awarded with impact minimization content
2	coordinate with SSP and watch manifest	PAD-B	makocl	5/31/2009		1 x 2 green	HST launches on time



CxP Risk: 1638 Detail Report Child to 1178

Open Date: 01/12/2007

Status as of: March 19, 2009

ECD: 05/31/2009

Safety Information

Safety Assessor:	S&MA Escalation:	S&MA Risk Score:	Ready for Review:
Safety Risk?			
Rationale:			
Agree With Risk Characterization?			
Risk Characterization Rationale:			
Agree With Risk Mitigation Plan?			
Risk Mitigation Plan Rationale:			
Has Coordination With Risk Owner Started?			
Risk Owner Coordination Status:			



JSC Risk : 1382 Detail Report

Open Date: 12/14/2006

Status as of: 3/23/2009

ECD: 10/1/2010

Title: COTS partners may not be able to achieve cargo capabilities on planned schedule	Status: Open	Escalation: TDR	Handling Strategy: Mitigate	Timeframe: None
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Risk Statement: Given the COTS partners have technical or financial problems and can't stay on schedule; there is a possibility that cargo and crew services would not be available to the Space Station Program in the time-frame that they need them.

Context: Participant schedule slips could result in missing a milestone. If a milestone is missed, the participant will be in default and subject to termination of the Space Act Agreement. Also, participant schedule slips may result in not being able to provide commercial services to Space Station in the time-frame needed.

Risk Owner: merminge	Phone Number: 281-483-0044	Owning Team: QA	Likelihood	X	Consequences	
Flights Affected:		Orgs Affected: QA			3	Supportability: 0
					Schedule: 3	
					Cost: 0	
					Safety: 0	
					Goals/Miss. Success:	

Mitigation Cost (\$M)			Total Mitigation Budget (\$M)		Cost of Inaction (\$M)	
High: 0	Most Likely: 0	Low: 0	Total Mit. Budget: 0		Most Likely: 0	

Cost Breakdown:

Closure\Acceptance Criteria: This will continue to be a risk throughout the COTS demonstrations

Closure\Acceptance Rationale:

Current Status:10/10/2008
 On 10/6, NASA HQ signed the milestone date change to the Orbital Space Act Agreement -----

 9/30/2008
 The mod to the Orbital SAA has been prepared and is waiting on Alan Lindemoyer approval before going to NASA HQ -----

 9/2/2008
 Rich Gilbrech agreed conceptually today to update the Orbital SAA. Bruce is working on a draft that is due by Thursday (9/4) -----

 6/19/2008
 C3PO Risk Review Board decided to lower the likelihood of this risk because the COTS re-competition was complete, SpaceX is on schedule, and Orbital's second milestone will have a small slip. We discussed the possibility of lowering the likelihood to a 2 but decided to leave it as a 3 because of the schedule changes that Orbital will have to make. We have been working with Orbital to change their SAA milestones because they may decide to build the PCM first and the UCM later. -----

 1/10/2008



JSC Risk : 1382 Detail Report

Open Date: 12/14/2006

Status as of: 3/23/2009

ECD: 10/1/2010

1/10/2007
The RpK Space Act Agreement was terminated in October 2007 and a new COTS Announcement to re-compete for the remaining RpK money was released on 10/22/2007 -----

7/26/2007 RpK problems with obtaining private financing will probably result in about a 6 month slip to their schedule. SpaceX is currently on schedule but may have to slip their demo flight 1 schedule because of the amount of time it will take to get Pad 40 ready at Cape Canaveral.

This risk is being worked on a daily basis



JSC Risk : 1382 Detail Report

Open Date: 12/14/2006

Status as of: 3/23/2009

ECD: 10/1/2010

Cost Summary

FY	Hi Mit. (\$M)	Most Like. Mit. (\$M)	Lo Mit. (\$M)	Cost in Scope (\$M)	Hi Recovery (\$M)	Most Like. Recovery (\$M)	Lo Recovery (\$M)	Comments
FY02	0	0	0	0	0	0	0	
FY03	0	0	0	0	0	0	0	
FY04	0	0	0	0	0	0	0	
FY05	0	0	0	0	0	0	0	
FY06	0	0	0	0	0	0	0	
FY07	0	0	0	0	0	0	0	
FY08	0	0	0	0	0	0	0	
FY09	0	0	0	0	0	0	0	
FY10	0	0	0	0	0	0	0	
FY11	0	0	0	0	0	0	0	
FY12	0	0	0	0	0	0	0	
FY13	0	0	0	0	0	0	0	
FY14	0	0	0	0	0	0	0	
FY15	0	0	0	0	0	0	0	
FY16	0	0	0	0	0	0	0	
FY17	0	0	0	0	0	0	0	
FY18	0	0	0	0	0	0	0	
FY19	0	0	0	0	0	0	0	
FY20	0	0	0	0	0	0	0	

Totals (\$M)	0	0	0	0	0	0	0	
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JSC Risk : 1382 Detail Report

Open Date: 12/14/2006

Status as of: 3/23/2009

ECD: 10/1/2010

Mitigation Summary

Mitigation Plan: - ISS secured alternate logistical support - Work closely with COTS partners to help them stay on schedule

Fallback Plan:

Task No.	Task Description	MO	Individual	ECD	ACD	Resulting L x C		Success Criteria
						Likelihood	Consequences	
5	Update Orbital Space Act Agreement as a result of changes in development plan	QA	Mark Erminger	02/27/2009		0	Supportability: 0 Schedule: 0 Cost: 0 Safety: 0 Goals/Miss. Success: 0	
1	ISS secure options for logistical support from International Partners to fill gap between Shuttle retirement and introduction of US commercial services.	QA	Mark Erminger	04/01/2007	04/09/2007	3	Supportability: 0 Schedule: 3 Cost: 0 Safety: 0 Goals/Miss. Success: 0	Agreement reached with International Partners
2	Develop alternative plans for COTS funding should a partner not be successful	QA	Mark Erminger	10/15/2007	10/22/2007	3	Supportability: 0 Schedule: 3 Cost: 0 Safety: 0 Goals/Miss. Success: 0	COTS Announcement for Re-Compete was released
3	Orbital Milestone Replanning	QA	Mark Erminger	07/30/2008	10/06/2008	0	Supportability: 0 Schedule: 0 Cost: 0 Safety: 0 Goals/Miss. Success: 0	
4	Update COTS Partner Milestones after the ISS	QA	Mark Erminger	01/15/2009		0	Supportability: 0 Schedule: 0	



JSC Risk : 1382 Detail Report

Open Date: 12/14/2006

Status as of: 3/23/2009

ECD: 10/1/2010

CRS procurement is announced

Cost: 0
Safety: 0
Goals/Miss. Success:
0

	ISS Risk: 5184 Detail Report				
	Open Date: 6/2/2004	Status as of: 3/10/2009	ECD: 12/31/2012		

Title: USOS Cargo Resupply Services (CRS) Shortfall - 2010 through 2015				Status:		Escalation: TPR							
Risk Statement: Given STS retirement in 2010, there is a 40 metric ton USOS usable cargo transportation shortfall from 2010 through 2015. Based on the 2008 OSD, delay in 2010 leads to significant scaling back of utilization on-orbit. Delay in 2011 means you can no longer maintain 6 crew or utilization.													
Description/Context: With STS retirement in 2010, the USOS usable cargo transportation through 2015 exceeds the USOS cargo transportation capabilities available to NASA from the ISSP International Partners via common systems operating cost and barter agreements. The projected shortfall is 40 metric tons of usable cargo (packaging not included).													
Impact/Consequence: Lack of adequate USOS cargo capabilities will result in a loss of ISS functionality and productivity due to the elimination of ISS vehicle elements, insufficient quantities of maintenance and research cargo resupply, severe reduction of return mass; and crew time to support USOS maintenance and utilization.													
Risk Owner (RO): Dillon, Ford (William)		Phone No.: 281-244-7074		Mgmt. Org. (MO): ON		Sub Org (SO): ON		Likelihood	X	Cost	Schedule	Technical	Safety
Flights/Stages Affected: PROGRAMMATIC				Orgs Affected: CA, DA, EA, OB, OC, OE, OM, OX, OZ, SA, XA				4		4	3	2	
Scoring Rationale: Likelihood = 4 Rationale: Space Shuttle retirement cannot be avoided, but alternatives exist for reducing requirements or procuring or developing additional transportation capability to meet ISSP requirements. Consequences = 5 Cost: 5 Rationale: Cost to reduce requirements, or procure or develop additional transportation capability will exceed \$50M. Schedule: 4 Rationale: Inadequate transportation will impact Program milestones. Technical: 4 Rationale: Inadequate transportation will result in major ISS performance degradation.													
Mitigation Cost (\$M)				Total Mitigation Budget (\$M)				Cost of Inaction (\$M)					
Low: 1487.7		Most Likely: 1487.7		High: 1487.7		0				0			
Cost Breakdown: Cost estimates to mitigate ISS crew and cargo transportation shortfall were assessed with all affected organizations. The MLC cost estimate was submitted as an overguide to the ISS Program Manager's Recommend in PPBE10 for cargo shortfall.													
Closure/Acceptance Criteria: ISSP mission objectives are satisfied with available cargo transportation services.													
Closure/Acceptance Rationale:													
Risk Status:													
2/13/2009 - Update to reflect Cargo risk only													
1/1/2009 - Contracts awarded													
8/25/2008 - Updated risk statement to reflect impacts to Utilization in the event of a delay in cargo transportation.													
6/13/2008 - Updated risk statement usable cargo value to be consistent with the updated budget threats.													
5/9/2008 - Updated the MLC to reflect the current budget threat.													



ISS Risk: 5184 Detail Report



Open Date: 6/2/2004

Status as of: 3/10/2009

ECD: 12/31/2012

3/3/08 -- Following the 2/20 PRAB, per agreement with the new ISS Transportation Integration Manager/K. Lueders (Code ON), this TPR is transferring from OM to ON. Risk owner is W. Ford Dillon. As part of the PPBE 10 exercise, ON will update the risk content and work with OH to update the MLC to reflect current the budget threat.

2/5/2008 -- SPARC Manager/ J. LaRochelle is working with Commercial Resupply Manager/K. Lueders to develop a more detailed risk mitigation plan as requested by the ISS Program Manager. The updated plan forward will be presented at the 2/20/08 PRAB.

9/28/07 -- The transportation shortfall has been updated with the latest requirements and vehicle capabilities, reviewed by Program Management, and is in review at HQ. Additional transportation service acquisition activities are ongoing for COTS, commercial, and IP vehicles. The COTS development continues to make progress with respect to ISS integration activities. A commercial transportation strategy Request For Information was released and comments received back from Industry. The ISS resupply procurement strategy is in work and will be presented to NASA Headquarters this November. The External Relations Office continues fact finding the capability to obtain additional IP vehicle services post-2010 if required to mitigate shortfall. Budget discussions are ongoing to mitigate the cost risk associated with the procurement of additional transportation services.

6/20/07 -- Working with ISS PP&C, combined the the crew and cargo transportation risks into 5184 per PRAB Chair direction. Costs updated to reflect the initial PPBE submit (high) and the final PPBE submit (MLC).

05/16/07 -- Developing a mitigation plan based on the results of the May, 2007, NASA Headquarter discussions. Plan to brief Program management on proposed mitigation plan and document results in Risk 5184 by the end of June, 2007.

04/04/07 -- NASA has obtained 4.2 and 1.4 metric ton of cargo transportation services from Roscosmos for calendar year 2010 and 2011, respectively. Requirements, capability and resulting shortfall continue to be refined and will be presented to Program management.

1/14/2007 -- OM Traffic Model Assessment complete. Results being briefed to ISSP management. Coordination of results in work with international Partners during January and February with results being brought to Feb 27, 2007 MPICB and subsequent SSCB(s) for review and concurrence. Results will establish updated cargo shortfall and mitigation strategy.

12/15/08 -- Strategic Planning & Analysis team continues to work closely with ISS and Shuttle management to refine the Transportation Plan (assembly sequence, Traffic Model, integrated carrier plan, resupply requirements, etc.), which forms the basis for mitigation of the 54.4 Mt shortfall.

10/20/06 -- No Significant change. ISS requirements and capabilities are under review with assessments due by January 2007.

8/18/2006 -- The near-term (pre-STS retirement) challenge was split out to a separate Risk (#5666) to account for the utilization, resupply and corrective maintenance shortfall. This risk now addresses the post-STS timeframe. Risk was modified to clarify the conditions causing the shortfall, the time period covered by the risk, the Partners affected by the risk, the consequence rationale, and the mitigation plan. The team continues to assess the Program's dynamic transportation requirements and capabilities.

6/29/06 -- Per PM direction, escalated to a Top Program Risk (TPR), reflecting the critical nature of the cargo transportation shortfall relative to overall mission success as well as the fact that the risk mitigation is contingent upon several external factors. Updated risk ranking and scoring rationale to more accurately reflect the risk posture.

6/19/06 -- Developed an updated risk mitigation plan and continued to calculate the cost of mitigation. Since the ISS Program (and SOMD) does not own the budget for obtaining all the



ISS Risk: 5184 Detail Report



Open Date: 6/2/2004

Status as of: 3/10/2009

ECD: 12/31/2012

transportation services required to meet the ISS requirements post-Shuttle retirement, the risk mitigation plan defines milestones and a schedule to support ISS transportation service acquisition decisions. Transportation services are expected to be acquired through the Commercial Orbital Transportation Services (COTS) Program, Crew Exploration Vehicle (CEV) Project, and commercial International Partner agreements. Cost estimates will have to be approved by the ISS Program Manager in conjunction with SOMD.

4/18/06 -- No change. Risk owner is in the process of defining mitigation steps.

4/4/06 -- Team continuing to assess and refine cargo transportation requirements based on HOA Assembly Sequence. CR expected to be initiated in mid-April to baseline the HOA Sequence as the Rev. H ISS Assembly Sequence. Will work with risk owner to identify mitigation steps for this high-profile TPR.

2/16/06 -- The ISS Transportation plan is being briefed to NASA and the International Partners at the SSCB on 2/22/06. The plan identifies the options for obtaining additional transportation services and the availability of these options through the life of the Program.

11/8/05 -- No change. Continuing to assess cargo transportation shortfall in concert with the overall Assembly Sequence review with Program teams and the International Partners.

8/8/05 – Per Program direction, Risk 5184 is modified to document the ISS cargo transportation shortfall that is outside of the ISSP ability to resolve. This cargo shortfall risk now addresses the cargo shortfall remaining after ISS has implemented efforts to reduce the transportation shortfall within the budget and authority of the Program. The USOS crew transportation and emergency return capability shortfall have been moved to OX Risk 5017.

7/20/05 – After the Tiger Team received concurrence from the OM Manager/C. Hatfield and the OH Manager/B. Waddell, the consensus recommendations were presented to ISS Deputy Program Manager/M. Suffredini who concurred on the 5220 approach. The recommendations will be briefed at the next PRAB.

6/15/05 – At the PRAB, direction given to ISS Program Integration Office (OM) to work with ISS Business Office (OH) and ISS External Relations Office (OX) to recommend to Program Management an integrated risk mitigation approach/strategy for the following Top Program Risks: 5017 - INA, 5220 - Shuttle Retirement impacts, and this Transportation cost risk. OM formed a Tiger Team that also included reps from ISS Mission Operations & Integration (OC) and ISS Vehicle Office (OB), as needed.

6/8/05 -- Per OM Mgr direction, mitigation cost estimates have been zero'ed out while ISS Transportation requirements and capabilities are being reassessed. Modified Mitigation Plan Overview and Fallback Plan Overview. Discussions in work to re-define Risk 5184 and 5220 to eliminate overlap/gaps and to characterize the objective and content of each risk more completely.

4/14/05 -- Transportation requirements and capabilities are under review and development by NASA and all ISS Partners. Conducted second multi-lateral transportation TIM to status efforts underway.

4/12/05 – Per direction by PRAB Chair, Soyuz transportation costs have been transferred from the ISS External Relations Office (OX) Risk 4107 to this risk to consolidate transportation costs in one threat. The ISS Program Integration Office (OM) continues to work with OX to assess the annual cost estimates based on Balance of Contributions discussions and Rev. G Assembly Sequence. This threat covers transportation costs not included in Watch Item 5220, "Post-Shuttle Retirement Impacts."

1/20/05 – The November Multi-lateral Transportation TIM defined the transportation shortfalls and possible mitigation strategies. The shortfalls and strategies are documented in the proposed Assembly Sequence update contained in CR 8973A and the SSCB charts presented on 1/18/05. The SSCB presentation laid the groundwork for agreements made at the Heads of Agency (HOA) meeting scheduled for 1/26/05 and for future negotiations and commercial vehicle procurement.



ISS Risk: 5184 Detail Report



Open Date: 6/2/2004

Status as of: 3/10/2009

ECD: 12/31/2012

8/26/04 – Transportation plan associated with the ISS Assembly Sequence is in work. A Technical Interchange Meeting is schedule for the week of November 15, 2004 to discuss the pre- and post- Assembly Complete transportation plan.

8/20/04 -- Transportation requirements and the revised Assembly Sequence are under review. A CR will be released by the end of September 2004 to baseline the ISS Assembly Sequence as agreed upon at the Heads of Agency (HOA) meeting in Noordwijk in July 2004. A detailed transportation plan is required to support the next HOA meeting currently scheduled for the December 2004 - January 2005 timeframe.

6/15/04 -- This risk relates to the Cargo/Crew Services line item in the President's Budget. With IRMA in cost lockdown, note the following add and correction (respectively) to the Comments for the cost section:

- Low cost for each fiscal year was calculated as lbs * \$10K.
- For FY06-FY10, the Low Cost reflects possible option of buying upmass on existing Progress.

6/2/04 -- At the POP04 PMR review, it was determined that the POP assembly sequence requires more transportation capabilities than currently agreed upon by the Partners. In addition, discussions with HQ and the IPs have necessitated changes to the POP Assy Sequence. Additional launch vehicles would ensure that the pressurized maintenance, crew supply, and utilization outfitting requirements can be satisfied. Current capabilities do not fully protect for utilization resupply. Thus, the PM directed that this threat be opened as an ISS Level 1 risk.

NOTE:

This risk does not cover the threats caused by the lack of agreement regarding:

- 1) Russian vehicle support (Soyuz or Progress) to ISS post-2010.
- 2) Additional ESA ATVs above current agreements that may be required post-2010.
- 3) Additional JAXA HTV post-2010.
- 4) Additional post-2010 NASA transportation requirements.

Adjust requirements based on Programmatic decisions or on-orbit performance to eliminate cargo transportation shortfall.



ISS Risk: 5184 Detail Report



Open Date: 6/2/2004

Status as of: 3/10/2009

ECD: 12/31/2012

Cost Summary

FY	Hi Mit. (\$M)	Most Like. Mit. (\$M)	Lo Mit. (\$M)	Amount Budgeted (\$M)	Inaction Cost (\$M)	Comments
09	0	0	0	0	0	
10	0	0	0	0	0	
11	409.8	409.8	409.8	0	0	
12	268.3	268.3	268.3	0	0	
13	509	509	509	0	0	
14	300.6	300.6	300.6	0	0	

Totals (\$M)	1487.7	1487.7	1487.7	0	0	
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	ISS Risk: 5184 Detail Report				
	Open Date: 6/2/2004	Status as of: 3/10/2009	ECD: 12/31/2012		

Mitigation Summary

Mitigation Plan Overview: 1/11/07 -- Continue to refine cargo transportation strategy based on the evolving FAWG, IP launch need dates, and Program transportation procurement decisions. 8/17/06 -- Identify USOS cargo transportation shortfalls as USOS transportation requirements and capabilities are refined by requirement reduction activities and procurement of additional services. 6/19/06: Assess the Program content against the pending revised ISS Assembly Sequence and based on: vehicle availability and configuration, crew size, utilization requirements and maintenance plans. Based on content, obtain transportation services necessary to support transportation requirements.

Fallback Plan Overview:

Task No.	Task Description	MO	Individual	MTSD	ECD	ACD	Resulting L x C					Success Criteria
							L	C	S	T	Sa	
1	HOA meeting to determine content and schedule.	OM	W. Gerstenmaier		7/23/2004	7/23/2004	4	5	5	4		Approval to proceed.
2	Develop Assembly Sequence to reflect HOA decisions.	OM	N. Wilks		8/17/2004	8/17/2004	4	5	5	4		Assembly Sequence drafted.
3	Request PICB authorization to proceed with CR for revised Assembly Sequence.	OM	N. Wilks		9/29/2004	9/29/2004	4	5	5	4		PICB approval.
4	Transportation assessment at SSCB.	OM	V. Thorn		1/18/2005	1/18/2005	4	5	5	4		Concurrence to proceed to HOA.
5	HOA Review of proposed Transportation Plan.	OA	W. Gerstenmaier		1/26/2005	1/26/2005	4	5	5	4		HOA approval to proceed with agreements.
6	Multi-lateral Transportation TIM #2	OM	V. Thorn		4/7/2005	4/7/2005	4	5	5	4		



ISS Risk: 5184 Detail Report



Open Date: 6/2/2004

Status as of: 3/10/2009

ECD: 12/31/2012

7	Conduct annual review of the ISS strategic flight plan, cargo requirements & transportation service capabilities. Refine transportation vehicle requirements, manifest, shortfalls, and transportation risks.	OM	J. LaRochelle		2/15/2006	1/18/2006	4	5	4	4		SSCB approval of strategic flight plan, risks, and shortfalls.
8	Define cargo transportation requirements and capabilities for the resulting ISS configuration and cargo vehicle flight rates.	OM	N. Lemmons		2/22/2006	2/22/2006	4	5	4	3		Definition of ISS configuration, cargo transportation requirements, operations concepts, and cargo vehicle flight rates.
9	Assess cargo transportation strategies against the proposed Rev. H Assembly Sequence	OM	J. LaRochelle		5/17/2006	6/5/2006	4	5	5	4		Impact the CR, as needed
10	Internal OM Management Review of overall risk mitigation strategy.	OM	J. Arend, J. Dunn, J. LaRochelle		8/17/2006	8/17/2006	4	5	5	4		Concurrence
11	Refine transportation service assumptions and requirements for alternate vehicles (CEV, COTS, Progress, HTV, ATV)	OM	J. LaRochelle		10/30/2006	10/30/2006	4	5	5	4		Refined assumptions & requirements in support of traffic model update.
12	Assess alternate vehicle capabilities and refine USOS cargo transportation strategy to meet mission objectives and minimize risk.	OM	J. LaRochelle		12/18/2006	12/18/2006	4	5	5	4		Revised Traffic Model
13	ISSP Manager review of cargo transportation shortfall and mitigation.	OM	J. LaRochelle		1/31/2007	1/31/2007	4	5	5	4		Program Manager concurrence



ISS Risk: 5184 Detail Report



Open Date: 6/2/2004

Status as of: 3/10/2009

ECD: 12/31/2012

14	International Partner review of updated USOS cargo transportation strategy.	OM	J. LaRochelle		4/30/2007	5/10/2007	4	5	5	4		MPICB OSB (TIM) concurrence
15	Cargo Transportation Acquisition Plan developed.	OX	D. Jacobs, J. LaRochelle		6/29/2007	6/7/2007	4	5	4	3		Included in PMR 09 Submit
16	ISS Program Management concurrence with latest shortfall and cargo transportation strategy.	OM	J. LaRochelle		9/14/2007	9/7/2007	4	5	5	3		ISS PM concurrence.
17	NASA Headquarters Procurement Strategy Meeting on ISS commercial resupply acquisition.	OA	K. Lueders		11/30/2007	11/28/2007	4	5	5	3		ISS Resupply procurement strategy.
18	Annual review of USOS cargo transportation augmentation strategy.	OM	J. LaRochelle		2/15/2008	2/15/2008	4	5	5	2		SSCB approval of USOS cargo transportation strategy
19	Award another Space Act Agreement	HQ			2/29/2008	2/22/2008	4	5	3	2		Space Act Agreement signed
20	Release transportation services procurement request for proposal.	HQ			4/14/2008	4/14/2008	4	5	3	2		Transportation Services Procurement RFP released
21	Award transportation services contract.	HQ			12/31/2008	12/23/2008	4	4	3	2		Transportation services contract awarded



ISS Risk: 5184 Detail Report



Open Date: 6/2/2004

Status as of: 3/10/2009

ECD: 12/31/2012

Flight/Stage Summary

Flight/Stage No.	Flight/Stage Acceptance Rationale
PROGRAMMATIC	

	ISS Risk: 5733 Detail Report				
	Open Date: 10/13/2006	Status as of: 3/10/2009	ECD: 12/31/2010		

Title: COTS-CEV Integration Impact on ISS Program Resources				Status:		Escalation: TPR							
Risk Statement: Given the addition of COTS and CEV vehicle integration with ISS, there is a possibility that current ISS resources may not be able to support both Programs on the current schedules.													
Description/Context: Activities associated with integration of COTS and CEV impact the critical ISS resources required to support the ISS mission.													
Impact/Consequence: Insufficient resources to meet dual program schedule requirements.													
Risk Owner (RO): Dillon, Ford (William)		Phone No.: 281-244-7074		Mgmt. Org. (MO): ON		Sub Org (SO): ON		Likelihood	X	Cost	Schedule	Technical	Safety
Flights/Stages Affected: PROGRAMMATIC			Orgs Affected: CA, DA, EA, EXTNL, OB, OC, OD, OE, OH, OM, OZ, SA, TA, XA, ZA			4	4	4		4	4		
Scoring Rationale: Likelihood: 4 (likely to happen) Consequence: 4 (cost)													
Mitigation Cost (\$M)				Total Mitigation Budget (\$M)			Cost of Inaction (\$M)						
Low: 12		Most Likely: 21.8		High: 42		0			0				
Cost Breakdown: 2/5/08 Update: Updated cost breakdown reflects funding and definitization for CR10261A (FY08). The SSPCB authorizes on a case-by-case basis. FY09 costs are being addressed via CR10261 Rev. B. Remaining budget requirements are being worked via separate CRs.													
Closure/Acceptance Criteria: Program funding decision.													
Closure/Acceptance Rationale:													
Risk Status:													
2/2/2009 - 11015 negotiation completed. Contract mod in work.													
12/12//2008 - Tech Evals submitted to Contracts													
11/1/2008 - Partial UCA for 11015 extended until Jan 31, 2009. 11015 Proposal received Oct 30, 2008 by NASA and in review with teams.													
6/12/2008 - Authorized to proceed with partial UCA for CR11015. CR 11015 will cover Orbital until Dec 2008. Space X and CEV will be covered for FY09 & FY10. A Generic vehicle will be covered from Jan 2009 to Sept 2009. Finalizing Non-Prime Cost numbers. Boeing firm proposal forthcoming.													
3/3/08 -- Risk ownership is being transferred to the new ISS Transportation Integration Office (Code ON). Risk owner is Ford Dillon.													



ISS Risk: 5733 Detail Report



Open Date: 10/13/2006

Status as of: 3/10/2009

ECD: 12/31/2010

2/4/2008 -- CR 10261A for FY08 funding has been definitized. A follow-on CR for post FY08 funding is in work and will be sent to the ISS organizations for evaluation in early February. This new follow-on CR to 10261A will add T&V closeout and any additional commercial partner requirements. In addition, CR 10829 was approved at the SSPCB to capture Space X related software development avionics integrated testing and (COTS UHF Communications Unit) CUCU Boeing related integration support for the Avionics & Software Office (OD). Forward plan for COTS-CEV Integration is being updated and will be reflected in the mitigation summary.

8/13/07 -- Technical evaluations and the IGE for CR 10261A were finalized and submitted to NASA Procurement at the end of July. The intent is to have the CR negotiated and on contract by the end of this month.

7/25/07 -- For the COTS/CEV CR 10261A, technical evaluations and the Independent Government Estimate (IGE) are in-work and both should be completed by the end of July. Revision A refines the Boeing cost estimate for FY07 and provides the firm estimate for FY08. The COTS IDR CR was presented to the 7/24 PICB, with Board approval to proceed to SSPCB. The C3PO / SSP MOA is ready for ISS Program Management signature.

5/17/2007 -- CR 10261 Basic Boeing proposal package received. Verification reviews ongoing with SpaceX. RpK comments to IRD Section 4's scheduled to be received the week of May 21. Final MDA content being reviewed by COTS Program management.

4/4/07 -- TCM for CR 10261 Rev. A will be conducted 4/10/07. Plan is to take to SSPCB on 4/17. Cost estimate will be updated following PPBE come-back.

3/22/07 -- SSCN 10261 was approved at the SSPCB on 2/6/2007. Part of the FY07 risk was retired following that approval. Remaining dollars are for potential software or testing required to start in FY07. CR 10261 Revision A was signed in for Program review on 3/6/07. Impact evaluations are due back on 3/27/07. Proposed TOR # 5806 opened in IRMA for cargo-related VVI tasks.

2/1/07 --- Identified early Govt. estimate of CAM costs being evaluated under CR 10261.

1/12/07 -- CR 10261 content was revised to cover the design review, verification planning, integrated analytical support, software requirements definition, and ops requirements planning for FY07 - FY10. Follow-on CRs will authorize specific modifications and operations products and integrated testing. CAMs have provided FY07 cost numbers for incorporation in this risk. Out-year costs will be developed as requirements are further defined and follow-on CRs authorized.

12/8/06 -- After several reviews with ISS senior management and key contractors, CR 10261 was authorized to collect cost estimates across Program organizations for FY07-FY10. A TCM is planned for mid-December. Any potential out-year costs (post-FY10) will be addressed via the FY07 PPBE.

10/03/2006 -- Established TPR per 10/12/06 PRAB Chair direction. Details are in-work pending based on COTS planning schedules.



ISS Risk: 5733 Detail Report

Open Date: 10/13/2006

Status as of: 3/10/2009

ECD: 12/31/2010



Cost Summary

FY	Hi Mit. (\$M)	Most Like. Mit. (\$M)	Lo Mit. (\$M)	Amount Budgeted (\$M)	Inaction Cost (\$M)	Comments
09	5	2.2	1	0	0	Early estimate identified via original CR 10261. Added to the MLC the \$3.8M estimated for CUCU (CR 10829).
10	11	7.2	4	0	0	Early estimate identified via original CR 10261. Added to the MLC the \$1.2M estimated for CUCU (CR 10829)
11	11	7.5	4	0	0	
12	5	1.7	1	0	0	
13	5	1.6	1	0	0	
14	5	1.6	1	0	0	

Totals (\$M)	42	21.8	12	0	0	
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ISS Risk: 5733 Detail Report

Open Date: 10/13/2006

Status as of: 3/10/2009

ECD: 12/31/2010



Mitigation Summary

Mitigation Plan Overview: 2/5/08 -- Incremental funding via CR 10261 revisions and separate CRs for any additional requirements not previously captured under STaR or CR 10261. 7/25/07 -- NASA Tech Eval and IGE for Boeing Proposal for CR10261A are nearing completion. ACES working with CAMs on key content/costing assumptions. IRD and associated ICDs in work to finalize requirements. 3/22/07 -- Revision A of CR 10261 is under review to capture FY08 cost impacts. 1/12/07 -- CR10261 is in review to collect Program cost estimate for COTS and CEV integration. 10/13/2006 -- Mitigation strategy is in-work.

Fallback Plan Overview:

Task No.	Task Description	MO	Individual	MTSD	ECD	ACD	Resulting L x C					Success Criteria
							L	C	S	T	Sa	
1	Space X IRD release	OA	K. Lueders		12/22/2006	12/22/2006	4	4	4	4		Release
2	Develop mitigation strategy and plan forward.	OM	K. Lueders, A. Tabakman		12/31/2006	12/31/2006	4	4	4	4		Program concurrence and direction
3	CR10261 to SSPCB	OA	K. Lueders		1/30/2007	1/30/2007	4	4	4	4		SSPCB approval
4	Initiate verification planning	OA	K. Lueders		2/19/2007	2/26/2007	4	4	4	4		
5	Refine COTS partners & ISS Program responsibilities for COTS integration and C3PO/ISSP MOA.	OM	K. Lueders		6/11/2007	7/24/2007	4	4	4	4		Approved MOA
6	IRD CR to PICB	OA	K. Lueders		7/31/2007	7/24/2007	4	4	4	4		PICB approval
7	Integrated test requirements	OA	K. Lueders		9/30/2007	9/30/2007	4	4	4	4		Draft JIVTP (Space X - 9/30)
8	Data and hardware requirements	OA	K. Lueders		9/30/2007	9/30/2007	4	4	4	4		Draft Deliverable Items Agreement (Space X - 9/30)
9	Initiate CR 10829	OD	M. Urano		1/22/2008	1/22/2008	4	4	4	4		Board authorization to proceed; partial UCA
10	Initiate Follow-On Post 10261CR.	ON	F. Dillon		5/1/2008	5/20/2008	4	4	4	4		Authorization to proceed with Boeing Partial UCA for 11015



ISS Risk: 5733 Detail Report



Open Date: 10/13/2006

Status as of: 3/10/2009

ECD: 12/31/2010

11	Process Updated 11015 UCA	ON	F. Dillon		6/17/2008	6/30/2008	4	4	4	4	4	Authorized UCA
12	Extension of 11015 UCA	ON	F. Dillon		10/1/2008	10/14/2008	4	4	4	4	4	Signed 11015 UCA
13	Initiate CR for Orbital Integration FY10	ON	F. Dillon		2/20/2009	2/24/2009	4	4	4	4		CR in review
14	Full Implementation of 11015	ON	F. Dillon		3/15/2009		4	4	4	4	4	signed 11015



ISS Risk: 5733 Detail Report



Open Date: 10/13/2006

Status as of: 3/10/2009

ECD: 12/31/2010

Flight/Stage Summary

Flight/Stage No.	Flight/Stage Acceptance Rationale
PROGRAMMATIC	

	ISS Risk: 5901 Detail Report				
	Open Date: 11/8/2007	Status as of: 3/10/2009	ECD: 12/31/2010		

Title: Integrated Schedule Risk for ELC, FSE, ORU and External Payload Development Supporting Flights ULF3/4/5/6				Status:		Escalation: TPR							
Risk Statement: Given aggressive hardware development schedules for ExPRESS Logistics Carriers (ELCs) 1-4, Orbital Replacement Units (ORUs), External Payloads and FSE to support ULF3 through ULF6 there is a possibility that schedule risks could impact manifesting and integration for these flights.													
Description/Context: Multiple developments in parallel for the carriers, ORUs, external payloads and FSE that all have to meet the ULF-3/4/5/6 launch commit dates.													
Impact/Consequence: Lack of certain critical spares to complete prepositioning on-orbit, and under-utilization of external payload sites if only part of the current manifest is available to be launched.													
Risk Owner (RO): Guerra, Alan		Phone No.: 281-244-7721		Mgmt. Org. (MO): OM		Sub Org (SO): OM		Likelihood	X	Cost	Schedule	Technical	Safety
Flights/Stages Affected: ULF3, ULF4, ULF5, ULF6				Orgs Affected: KSC, OB, OC, OE, OH, OM, OZ				3		4	4	4	0
Child Records: 5716, ExPRESS Logistics Carrier (ELC) Development Cost and Schedule (OB)5840, Forward Link Capability for Connect Payload (OZ)5841, ELC Avionics Readiness for ULF3 (OZ)5939, External Payloads - Lack of payloads to utilize NASA external sites (OZ)6027, Meeting ULF-3 Programmatic Milestones (KSC)													
Scoring Rationale: Likelihood: 3 (Schedule uncertainty) Consequence: 4 (cost, schedule and technical)													
Mitigation Cost (\$M)				Total Mitigation Budget (\$M)				Cost of Inaction (\$M)					
Low: 0		Most Likely: 22.45		High: 23		0				0			
Cost Breakdown: 6/08 Update: Added in ROM cost threat for ISS Vehicle Office CR 11057 (OZ is an affected org). Raised to Cost Level 1. The aggregate cost threat for Risk 5901 is a compilation of the open ""children"" risks in IRMA. Therefore, the cost threat for each FY is identified by CAM and active risk item. These numbers are evolving and will be updated as new costs are identified or decremented as CRs are approved or a mitigation budget is identified. (Note: The original ELC cost threat under Risk 5716 has been fully funded by the ISS Program.)													
Closure/Acceptance Criteria: Development schedule risk is mitigated to the level of ""normal planned work.""													
Closure/Acceptance Rationale:													
Risk Status:													
2/19/09 -- Updated Child Risk list to delete OZ Watch Item 5576 based on Program Manager's decision to not link out year threats to this risk. Added KSC Risk 6027 to Child Risk List and have captured their cost.													
2/10/09 -- Updated description to include ULF6 and ECD to expected Shuttle retirement date. Cost updated to roll up costs from all child risks. ULF3: ELC Deck 2 delivered to KSC 12/17/08 with OPDB, PDA, UMA, Handrails, WIF and harnesses. Deck 2 integration continues with PFRAM/PFAP assembly complete, top side ELC match drilling complete and deck rotated, match drilling for underside of Deck2 started 2/12/09, and harness termination is underway. Program Manager decision to deliver and turnover Deck 1 on March 20th without avionics. Absolutely no margin remaining for ELC avionics development testing or integration at KSC. ExPCA delivery to KSC now scheduled													



ISS Risk: 5901 Detail Report



Open Date: 11/8/2007

Status as of: 3/10/2009

ECD: 12/31/2010

for June 9th and June 26th.

Original KSC estimate was for \$2.2M over their existing budget, but late deliveries and added work has increased that to \$3.5M estimate. KSC working to refine estimate. CR 11509 has been released to add scope / budget to KSC for ELC processing.

ULF4 schedules still being worked with Astrium. ULF5 manifest still being finalized with SARJ decision pending completion of SARJ accelerated life testing expected to complete in June/July, and the addition of ULF6. Presentation to SSPCB on 2/17/09, for decision on 10 EVA planning and JSA (Jack Slider Assemblies) manifesting options.

OZ has closed Watch Item 5841 and zero'd cost and opened 3 new concerns to track internally. No costs included for the new concerns. Costs for OZ Watch Item 5840 captured with CR 11057 cost impacts. Phasing may need to be updated based on anticipated ATP date.

1/22/09 -- Updated dates for mitigation steps for ULF4/5 schedule baselining. Waiting for schedule from Astrium on need dates. ULF5 manifest still being worked. Will have updated draft schedules available at next PRAB. Working cost integration for child risks and will have updated for February PRAB.

12/17/2008 -- Updated mitigation steps based on manifest changes in work. Delays to baselining ULF5 manifest will delay schedule baselining.

11/4/08 -- Per 9/3/08 PRAB action, OM completed development of ULF3 Integrated Schedule to reflect ELC dates, ORU dates, FSE dates, KSC processing dates and top level analytical product deliveries. Draft schedules for ULF4 and ULF5 have been developed and are being coordinated with hardware providers. ULF3 Final Configuration approved at 10/28/08 SSPCB, adding the UTA FSE which adds risk to flight. SARJ XL was also officially manifested on ULF5. Program Manager decision to deliver the first ELC deck in December 2008 (without avionics) to help with KSC processing flow. ELC and KSC schedules being revised to reflect new dates and will be incorporated into new ULF3 Integrated Schedule. Per Program Manager direction at 11/4/08 SSPCB, all hardware dates are baselined and cannot to move without ISS management approval. Hardware providers are to first take schedule issues to CAM, and then if resolution cannot be reached, bring forward to SSPCB for final direction. For OZ Watch Item #5939 Lack of External Payloads, OZ has initiated talks with JAXA for development of a high definition TV camera for ISS. Potential launch is 2010 thru 2011.

Zero'd out costs so no confusion on double booking. Need additional coordination with OB and OZ before rolling costs up to this risk. Will complete coordination prior to next PRAB.

9/30/08 -- At the last PRAB, the ISS Program Manager/M. Suffredini tasked the affected organizations to develop a more integrated schedule that includes not only the ELC schedules but adds ORU and payload schedules. Per the ISS Vehicle Office Manager/OB/D. Hartman, OB will provide best data to-date for ORUs. The ELC Flight Integration manager/R. Nabizahdeh will coordinate with the OB ORU and OZ payload focals to ensure the integrated schedule has the correct milestones. In addition, per Change Engineer/H. Feldman, Change Directive 11163 has been signed.

8/27/08 -- Working with the ISS Vehicle Office (OB) and ISS Payloads Office (OZ) to understand the challenges inherent in the children risk to this integrated schedule risk. Funding was approved for associated Risks 4071, Critical Spare FSE Copies (OM) and 5910, Build I/F cables for PRCU to ELC to support KSC testing (OZ) and both were closed in IRMA (about \$1.27M cum risk buydown). CR 011057 will fund OB Risk 5716, ELC Development Cost and Schedule (\$29M in FY09) as well as Risk 5840, Fwd Link Capability for the CONNECT payload. Both risks remain open until funding approval. OZ has mitigated the cost threat for their Risk 5841, ELC Avionics Readiness for ULF3. For OZ Risk 5576, funding challenges in the out-years will be addressed during the next PPBE (POP) cycle. For the remaining OZ Risk 5939, Lack of P/Ls to utilize NASA external sites, NASA is actively investigating payload options for all three flights and recently added a new DOD payload to ULF5. With the addition of the OB cost estimate for CR11057, the cum cost threat is estimated at \$33.5M (FY09 through FY16) as documented in the individual risks.



ISS Risk: 5901 Detail Report

Open Date: 11/8/2007

Status as of: 3/10/2009

ECD: 12/31/2010



7/28/08 -- Change Engineer/Holly Feldman took CR 11163 to the 7/23 PICB. Board direction was to defer taking CR to SSPCB pending determination if there are any remaining costs associated with CR 11163 or if the CR is still even necessary given that the new approved MIM has accounted for these manifest changes. In addition, WI 5076 was removed as a Child Risk (was mitigated and closed via 6/11/08 PICB).

6/10/08 -- Per the ISS Vehicle Office (OB) and in conjunction with the ISS Payload Office (OZ), primary update to this parent risk is to add the cost for CR 11057 (for ELC Avionics). In addition, cost threat for OM Watch Item 5076 (FSE OAKs) is mitigated via CR 10969 and risk is closed. With associated ("children") risks in the process of being updated and the ELC ULF3 Ground Ops Working Group meeting next week, key risk POCs for the affected orgs plan to meet next week to review and update the overall risk mitigation strategy.

4/14/08 --The Pump Module Assembly #4 (PMA4) schedule was reviewed at the 4/4 Systems Working Group (SWG). The vendor still shows a transducer schedule that does not support the planned delivery date, but Boeing is working to better define what is driving the vendor schedule. The SWG asked the team to return on 4/18 for an update and to begin evaluation of what data would be required to assess using qual transducers instead.

4/8/08 -- Team recommendation to PRAB on risk ranking would revise the score based on the children risk to: 4 x 4 (from 3 x 4). The aggregate cost minus existing mitigation budget (OM only) adds a cost consequence of "3".

4/7/08 – The 3/26/08 ISS Program Integration Control Board (PICB) today approved the revised ULF-3/4/5 Plan to proceed to the SSPCB. The SSPCB-approved plan will be added as an attachment to this risk. Key changes in the plan from manifests baselined in the Interim Rev. H Strategic Flight Plan include:

- Acceleration of CTC-1 from ULF5 (ELC4) to ULF3 (ELC2)
- Addition of SGANT #2 to ICC-VLD on ULF4
- Change of HPGT #2 from ULF4 (ICC-VLD) to ULF5 (ELC4)
- Addition of the BCDU #4, SASA #3, CTC #3, and SHOSS-ED (with coldplates) to ULF5 (ELC4).

The ULF3/4/5 manifest baseline is required at L-18 months to support template product development. The ULF3/4/5 external manifests are included in the Multi-Increment Manifest (MIM) Revision J (CR 10592B).

3/26/08 – Per the ISS Vehicle Office (OB), current planning for delivery of the ELCs and ORUs are on-track to meet ULF3 commit dates with the exception of one ORU - Pump Module Assembly #4. Per Systems Working Group (SWG) Chair/J. Dempsey, the ISS Vehicle Office is awaiting Boeing confirmation of acceptable lead time on a required pressure transducer. Status will be presented to the April 4 SWG to determine if there is sufficient schedule impact to begin risk mitigation planning. If so, a risk will be opened in IRMA at that time. All major testing of ELC Deck 1 (Proto-flight) will be completed by August 2008, which should mitigate ELC schedule risk. The ELC Deck 1 will be delivered 12/18/08. The ELC Deck 2 will be delivered 12/1/09. The Vehicle Office also is reviewing ULF5 ORU schedules to confirm that current planning meets commit dates. Therefore, at this time, the key challenges for the integrated ELC schedule risk: the availability of External Payloads based on low production of external payloads within the NASA community, meaning external payloads may not be available to launch on ULF3/4/5 and external sites will be under-utilized. Significant delays in turn could cause a challenge for the ISS Program Integration Office as the carrier integrator. Assuming external payloads are available, the ELC will be used to launch, transfer and operate the payloads. Therefore, the Payloads Office (OZ) has a cost threat for ELC payload integration and verification support.

3/12/08 – The primary ISS organizations affected by ELC planning (OB, OM, OZ and KSC) have the following open risks in the IRMA risk database (identified here as "children" risks to this integrated "parent" risk - TPR 5901):

ISS Vehicle Office (OB):



ISS Risk: 5901 Detail Report



Open Date: 11/8/2007

Status as of: 3/10/2009

ECD: 12/31/2010

- Risk 5716, ELC Development Cost and Schedule (which also covers the Payload risk for ELC Avionics).
- Concern 5893, Potential Structural Failure of PCU FM03 on ELC (OB-internal item; maturity not to the level of a risk).

ISS Program Integration Office (OM):

- Risk 5071, Critical Spare FSE Copies (FHRC #3, SGANT; ATA);
- WI 5076, OAKs to externally stow CTC-compatible ORUs
- Note: OM also carries the Program's top technical risk: #2810, "Russian Segment Capability to Provide Adequate MMOD Protection," which addresses the possibility that the Russians will not complete Deployable Shields for the RS; the shields are manifested on ULF5. Because it is the top technical risk and relates to an International Partner's commitment, Risk 2810 content and cost are not rolled into 5901.

ISS Payloads Office (OZ) – Currently the critical path for meeting the ULF3/4/5 manifest:

- WI 5939, External Payloads – Lack of payloads to utilize NASA external sites
- WI 5576, ELC Payload Integration
- WI 5840, Forward Link Capability for CoNNECT Payload
- WI 5841, ELC Avionics Readiness for ULF3 (may be closed to OB Risk 5716)
- WI 5910, Build I/F Cables for PRCU to ELC to support testing at KSC

KSC: Potential risk for test equipment is under review.

2/29/2008 -- Per Chair direction at the PRAB, the ISS Program Integration Office (OM) has taken ownership of this risk and will work closely with all affected Program organizations to maintain 5901 as a Parent risk and to properly identify all associated children risks.

Approved as a TPR at 2/20/08 PRAB.



ISS Risk: 5901 Detail Report



Open Date: 11/8/2007

Status as of: 3/10/2009

ECD: 12/31/2010

Cost Summary

FY	Hi Mit. (\$M)	Most Like. Mit. (\$M)	Lo Mit. (\$M)	Amount Budgeted (\$M)	Inaction Cost (\$M)	Comments
09	13.5	13.5	0	0	0	2/09Update: OZ Watch Item 5840 costs (\$0.25M) captured in CR 11057 impacts; KSC cost threat for ULF3 ELC integration of \$2.5M; OB Forward Link costs of \$7.0M for CR 11057 and ELC development cost of \$4.0M.
10	8	7.5	0	0	0	2/09Update: OZ Watch Item 5840 costs (\$1.25M) captured in CR 11057; KSC cost threat for ULF3 ELC integration of \$1.0M; OB Forward Link costs of \$5.0M for CR 11057 and ELC development cost of \$2.0M.
11	0	0	0	0	0	2/09Update: Reflects OZ Watch Item 5840 costs (\$0.5M) captured in CR 11057. Will update phasing next PRAB if necessary.
12	0	0	0	0	0	
13	0	0	0	0	0	
14	0	0	0	0	0	

Totals (\$M)	21.5	21	0	0	0	
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	ISS Risk: 5901 Detail Report				
	Open Date: 11/8/2007	Status as of: 3/10/2009	ECD: 12/31/2010		

Mitigation Summary

Mitigation Plan Overview: The ULF3/4/5/6 external manifests are included in the Multi-Increment Manifest (MIM). Based on these manifests, at the Parent risk level, the Program will aggressively manage and track development, integration, test, and delivery schedules for hardware and payloads manifested on ULF3/4/5/6. Detailed mitigation steps for ELCs, ORUs, Payloads and associated FSE are identified in the “children” risks.

Fallback Plan Overview:

Task No.	Task Description	MO	Individual	MTSD	ECD	ACD	Resulting L x C					Success Criteria
							L	C	S	T	Sa	
1	Freeze ULF3 Manifest.	OM	H. Feldman		3/27/2008	3/27/2008	3	3	4	4		SSPCB approval
2	ULF3/4/5 Plan to SSPCB	OM	H. Feldman		3/27/2008	3/27/2008	3		4	4		Board approval
3	FSE CR initiation.	OM	A. Guerra		4/16/2008	4/16/2008	3		4	4		Board approval to proceed
4	Determination of schedule risk for Pump Module Assembly #4.	OB	J. Dempsey		4/25/2008	4/25/2008	3		4	4		SWG recommendation to ISS Vehicle Manager
5	Baseline ULF4 Manifest (CR 11163)..	OM	H. Feldman		9/30/2008	9/30/2008	3		4	4		SSPCB approval and Directive signed.
6	Develop draft Integrated ULF3/4/5 schedules	OM	K. Kuehn		10/15/2008	10/15/2008	3		4	4		Present to OM Management
7	Present Integrated ULF3 Schedule to PRAB for baselining	OM	A. Guerra		11/12/2008	11/12/2008	3		4	4		Program Management approval
8	Integrate Costs into one Risk	OM	K. Kuehn		2/10/2009	2/10/2009	3	4	4	4		
9	Complete ULF4 schedule coordination for baselining	OM	K. Kuehn		4/15/2009		3	4	4	4		OM Management approval to proceed to SSPCB
10	Present ULF4 Schedules for Baselining	OM	A. Guerra		4/30/2009		3	4	4	4		Program Management approval
11	Develop draft ULF5 schedule	OM	K. Kuehn		5/15/2009		3	4	4	4		Manifest Freeze



ISS Risk: 5901 Detail Report



Open Date: 11/8/2007

Status as of: 3/10/2009

ECD: 12/31/2010

12	Develop draft ULF6 schedule	OM	K. Kuehn		6/15/2009		3	4	4	4		Manifest Freeze
13	Freeze ULF5 Manifest.	OM	H. Feldman		6/30/2009		3	4	4	4		SSPCB approval
14	Review ULF5/6 schedules with OM management	OM	K. Kuehn		6/30/2009		3	4	4	4		Manifest Freeze
15	Baseline ULF5/6 schedules	OM	A. Guerra		7/30/2009		3	4	4	4		Manifest Freeze
16	Freeze ULF6 Manifest	OM	H. Feldman		9/1/2009		3	4	4	4		SSPCB approval



ISS Risk: 5901 Detail Report



Open Date: 11/8/2007

Status as of: 3/10/2009

ECD: 12/31/2010

Flight/Stage Summary

Flight/Stage No.	Flight/Stage Acceptance Rationale
ULF3	
ULF4	
ULF5	
ULF6	



**ARM Risk: 1772 - Lack of Sufficient ISS Flight Resources for HRP
Investigations
Risk Detail Report**

Open Date: 7/27/2006

Status as of: 3/19/2009

ECD: 9/30/2010

Risk Title: Lack of Sufficient ISS Flight Resources for HRP Investigations		Owning WBS Element: Human Research		
Escalation Level: Top Directorate Risk		Risk Status: Approved		
		Risk Owner: Elizabeth Bauer		
Risk Statement: Given the ISS flight resources are very limited by available on orbit crew time, utilization upmass and downmass post-Shuttle retirement, types of sample return capability and the number of ISS crewmembers; there is a possibility that HRP cannot complete all critical flight investigations in all areas where there are gaps in current capability (at CRL 7-8/TRL 6) to meet both Agency standards and Constellation needs.				
Likelihood: 4	Safety: 0	Performance: 4	Schedule: 0	Cost: 0
Context: There is a possibility that HRP cannot complete all critical flight investigations in all areas where there are gaps in current capability to meet both Agency standards and Constellation needs. The current HRP flight investigations baseline list exceeds the current per Increment ISS research resources through Increment 18. The ISS currently hosts crews of 3 persons, providing very limited numbers of long duration human research subjects/operators during its assembly phase. The available on orbit crew time per increment limits the number of investigations that can be completed every year. The ISS crew size is expected to increase to 6 persons in 2009. HRP is expecting an increase in on orbit crew time to enable the crew to conduct investigations. However, the Space Shuttle is expected to retire as a science launch/return vehicle in 2010. At that time the limitations will change to upmass and downmass and access to crews at the landing site for baseline data collection (BDC). Without a balanced and adequate set of crew time, subject availability, upmass and downmass, and BDC resources, the HRP cannot implement its flight program as a part of its integrated research. Without the ability to implement the HRP flight program, NASA will be left with significant and/or unknown residual risk to the exploration missions.				
Status:				
2/16/2009 8:53:24AM - 2/6/09: Contacted K. Lueders regarding ISSP Commercial Resupply Contract (CRS) recently awarded. Flights are currently being folded back into program planning and documents.				



ARM Risk: 1772 - Lack of Sufficient ISS Flight Resources for HRP Investigations Risk Detail Report

Open Date: 7/27/2006

Status as of: 3/19/2009

ECD: 9/30/2010

2/9/2009 1:30:28PM - 1) Due to limited available upmass and the need to prioritize provisions for 6 person crew operations, manifesting the ESA-provided Portable Pulmonary Function System (PPFS) on 32Progress (32P) was unsuccessful through both ESA manifesting options, OZ/Payloads Office and directly with Russians. In addition, the Harness Station Development Test Objective (SDTO) equipment was not manifested as systems hardware through the OC/Mission Integration and Operations Office. The Expedition 19/20 Flight Engineer-1 was lost as a VO2 max and Harness SDTO subject due to this lack of upmass. If shuttle flights to ISS continue to slip and there is no upmass made available on Russian vehicles, additional subjects may be lost for HRP investigations. 2) Contacted K. Lueders regarding ISSP Commercial Resupply Contract (CRS) recently awarded. Flights are currently being folded back into program planning and documents

10/30/2008 10:00:17AM - 10/30/08 1) Confirmed Russian subject participation is not a negotiating point for all subjects. It will continue to be worked on a case by case basis when US and Russian scientists are conducting similar research, such as Bisphosphonates. 2) A revision to the Integration Research Plan is in progress, which will address the constraint of 3 crewmembers available per increment with only 2 crewmembers volunteering as subjects. 3) The ISSP Commercial Resupply (CRS) vehicle procurement is in a blackout period until at least Jan 09.

7/18/2008 2:45:12PM - Jul 15, 2008: Met with the ISS Medicial Project (ISSMP) lead on June 27 to discuss risk transfer to PIO. Content was updated to reflect this transfer and add new PIO mitigation tasks. Negotiations stalled regarding an agreement for Russian crewmembers to participate as subjects. Will work with the ISSPO to confirm. The ISSMP is currently reanalyzing the flight queue and Integrated Research Plan assuming no Russian subjects. Issue surfaced regarding CxP and baseline data collection (BDC) requirements. The CxP is not carrying BDC as a CARD requirement. The GS Project appears to be willing to add a requirement to the GS-SRD, but may decline if associated funding is not included.

5/28/2008 11:05:54AM - Escalated to a Top Directorate Risk during the ESMD Top Risk Review, 07May08



ARM Risk: 1772 - Lack of Sufficient ISS Flight Resources for HRP Investigations Risk Detail Report

Open Date: 7/27/2006

Status as of: 3/19/2009

ECD: 9/30/2010

5/5/2008 11:10:49AM - Feb. 15, 2008: Inputs for Increments 18 and 19 are in the planning phases. HRP is expecting an increase in available crew time in the second part of Increment 19 with increased crew size. HRP is performing a resource assessment based on the baselined Integrated Research Plan to identify implementation risks. It is anticipated that flight crew time will no longer be the prime limitation on performance of flight activities. However, with retirement of the shuttle, severe limitations in downmass and sample return are expected between 2010 and 2014. In addition, crew rotations exclusively on the Soyuz limits critical pre and post flight access to crews for baseline data collection. ISS Program proposals for training schedules may extend development time for investigations, impacting HRP ability to more quickly turnaround flight investigations. HRP flyoff plan of investigations is based on the assumption that 4 of 6 ISS crewmembers will be available as subjects. This is dependant on an agreement to acc

12/8/2006 8:39:25AM - This risk was approved during the last Human Research Program Control Board.

Handling Strategy: Mitigate

Mitigation Plan: HRP works closely with the ISS Program to make best use of limited flight resources. HRP also utilizes ground analogs, including human bedrest, undersea, and polar conditions to ensure flight resources are used only as necessary.

Fallback Plan:



ARM Risk: 1772 - Lack of Sufficient ISS Flight Resources for HRP Investigations

Risk Detail Report

Open Date: 7/27/2006

Status as of: 3/19/2009

ECD: 9/30/2010

Task ID	Task Description	Owner	Due Date	Comp. Date	Resulting L x C	Success Criteria
9376	The ISSMP will evaluate the current portfolio for those investigations with technical implementation issues and assess the constraints vs. the intended outcome of the investigation.	Cynthia Haven	9/26/2007	9/18/2007	4 x 4 - Red	ISSMP will coordinate with the effected Program Elements and will provide a recommendation to the HRP Manager on investigations that are challenged by feasibility and/or resource constraints and receive a decision on whether or not to pursue.
9377	The HRP will develop, based on the Sample Return Decision Package, a proposal for a technology suite necessary to reduce the up/downmass required to perform Human Research.	Craig Kundrot	9/26/2007	8/21/2007	4 x 4 - Red	A Technology Development Recommendation will be presented to the HRPCB. Risk reduction is accomplished by implementation of the recommendation.
9375	The HRP will baseline an Operationally Integrated Research Plan, including the use of bedrest studies, and other space analog environments.	Ned Penley	12/13/2007	12/13/2007	4 x 4 - Red	Baselined HRP Integrated Research Plan.
9382	Based on the Baselined HRP Integrated Research Plan, the ISSMP will prepare an integrated requirements assessment for the ISS and communicate the results to the ISS Program. The plan will include operational efficiencies gained through synergy w/ Med Ops	Cynthia Haven	5/22/2008	4/18/2008	4 x 4 - Red	Transmitted HRP ISS Requirements to the ISS Program
14410	Confirm CRS up/down mass capability	Elizabeth Bauer	5/29/2009		3 x 3 - Yellow	CRS provides HRP utilization capability



SSP Risk : 2758 Detail Report

Open Date: 6/12/2006

Status as of: 3/10/2009

ECD:

Title: Transition / Retirement Unfunded post 2010	Status: Open	Escalation: None	Timeframe: None
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Risk Statement: Given the efforts and plans to fully transition Shuttle Program hardware and software; there is a possibility that significant cost impacts will occur.

Context: Efforts and plans to fully transition Shuttle Program hardware and software may produce significant cost impacts greater than \$25M thru program closeout. Efforts associated with KSC facilities closeout are currently unfunded in Planning, Programming, Budgeting and Execution (PPBE). Efforts beyond 2010 (FY-11 and FY-12) remain unfunded. Associated to Shuttle Program Transition Risk 2808.

Risk Owner: rgwillco	Phone Number: 321-867-4343	Owning Team: Shuttle_Proc	Likelihood	X	Consequences			
Flights Affected:		Orgs Affected: Shuttle_Proc, BusMgmt, SP_Transition			3	Safety: 0		
						Supportability: 0		
						Mission Success: 0		
				Schedule: 0				
Mitigation Cost (\$M)			Cost in Scope (\$M)		Recovery Cost (\$M)			
High: 0	Most Likely: 0	Low: 0	Total Mit. Budget: 0		High: 0	Most Likely: 0	Low: 0	

Cost Breakdown:

Safety Risk: No

Ready for Review: Yes

Closure\Acceptance Criteria:

Closure\Acceptance Rationale:

Current Status:3/6/2009: Shuttle Processing revised T&R PPBE 2010 submission based on new guidance from SSP. Revised submit presented to SSP on 7/23/08. Agency has included T&R funding in submit to OMB. If OMB approves T&R efforts will be funded thru FY-12. Initial expectation was for funding approval status in February '09 now timeframe shifts to April '09. -----

2/23/2009: Shuttle Processing revised T&R PPBE 2010 submission based on new guidance from SSP. Revised submit presented to SSP on 7/23/08. Agency has included T&R funding in submit to OMB. If OMB approves T&R efforts will be funded thru FY-12. -----

1/22/2009: Shuttle Processing revised T&R PPBE 2010 submission based on new guidance from SSP. Revised submit presented to SSP on 7/23/08. Agency has included T&R funding in submit to OMB. If OMB approves T&R efforts will be funded thru FY-12. -----

11/6/2008: Shuttle Processing revised T&R PPBE 2010 submission based on new guidance from SSP. Revised submit presented to SSP on 7/23/08. Agency has included T&R funding in submit to OMB. If OMB approves T&R efforts will be funded thru FY-12. Given current posture Shuttle Processing Top Risk Review 10/6/08 lowered the likelihood of 5 to a 3 and changed TOR to no escalation. -----



SSP Risk : 2758 Detail Report

Open Date: 6/12/2006

Status as of: 3/10/2009

ECD:

10/7/2008: Shuttle Processing revised T&R PPBE 2010 submission based on new guidance from SSP. Revised submit presented to SSP on 7/23/08. Agency has included T&R funding in submit to OMB. If OMB approves T&R efforts will be funded thru FY-12. Given current posture Shuttle Processing Top Risk Review 10/6/08 lowered the likelihood of 5 to a 3 and changed TOR to no escalation. -----

9/25/2008: Shuttle Processing revised T&R PPBE 2010 submission based on new guidance from SSP. Revised submit presented to SSP on 7/23/08. Agency has included T&R funding in submit to OMB. If OMB approves T&R efforts will be funded thru FY-12. (Recommend: Risk likelihood may be lowered to from 5 to 3-or-2) -----

7/14/2008: Shuttle Processing is revising T&R PPBE 2010 submission based on new guidance from SSP. Revised submit will be presented to SSP on 7/23/08. -----

6/27/2008: Shuttle Processing PPBE 2010 submit included funding for T&R activities post 2010. Awaiting feedback from the SSP of its inclusion in the Agency's budget submit to OMB. -----

4/17/2008: Shuttle Processing PPBE 2010 submit included funding for T&R activities post 2010. Awaiting feedback from the SSP of its inclusion in the Agency's budget submit to OMB. -----

2/13/2008: This PPBE cycle (PPBE 2010) we are planning content and funding for T&R activities post 2010 in anticipation of T&R inclusion in the Agency's budget submit to OMB. -----

11/29/2007: Communicating with T&R, still unfunded past 2010 and will be carried as a cost threat.

9/18/2007: PPBE 2009 presented to SOMD with update based upon programmatic defined end states submitted to SSP on 8/20/2007. Level II will integrate the Elements' submittals and present to SOMD in early September. T&R still unfunded past 2010 and will be carried as a cost threat. -----

8/27/2007: PPBE 2009 update based upon programmatic defined end states submitted to SSP on 8/20/2007. Level II will integrate the Elements' submittals and present to SOMD in early September. Post 2010 T&R funding is still unidentified and will be carried as a cost threat. -----

7/18/2007: PPBE 2009 input submitted which identified funding requirements beyond FY 2010. SSP T&R budget requirement past 2010 are currently carried as cost threats. Updates expected in August 2007, reference Institutional Infrastructure Analysis dated 6/1/07. -----

6/13/2007: PPBE 2009 input submitted which identified funding requirements beyond FY 2010. SSP T&R budget requirement past 2010 are currently carried as cost threats. Updates expected in August 2007, reference Institutional Infrastructure Analysis dated 6/1/07. -----

5/1/2007: PPBE 2009 input submitted which identified funding requirements beyond FY 2010.

----- 3/19/2007: Continue to communicate with Program and Transition team. PPBE 09 is in work to identify funding requirements beyond FY-10.

2/22/2007: PPBE 09 is in work to identify funding requirements beyond FY-10.

1/9/2007: Requests for funding marks for FY 08-10 in PPBE 07 submitted in December 2006 to SSP Business Office. PPBE 07 and subsequent will include a refinement of KSC parametric estimate for funding KSC transition effort. Beyond 2010 remain unfunded.

11/17/06: Returned to TPRCB \$6.4M in FY07 that will not be required to implement Pad-B due to HST LON. Teams assessing FY08-10 requirements for PPBE-07. Team will re-assess FY06 KSC cost estimate of funding requirements for T&R prior to PPBE-07 submit. Close coordination of requirements with SSP continues. Given efforts and plans to transition and retire the Shuttle Program remains unfunded past FY10, there is a significant cost risk in FY11 and FY12.

10/2/2006: TPRCB approved \$7.58M (\$1.18M FR1Pad-B Phase1 and \$6.4M Pad-B Phase2 partial) of the requested \$11.2M in CRS063469. Remaining \$3.62M to be refined based upon SPOC O&M credit for Pad-B.



SSP Risk : 2758 Detail Report

Open Date: 6/12/2006

Status as of: 3/10/2009

ECD:

9/25/2006: Transition costs of \$11.2 M CR S063469 for Firing Room 1 and Pad-B going to Transition PRCB (TPRCB) 9/26/06.
7/25/2006: Transition and Retirement (T&R) planning efforts continue. Budget requirements for FY-07 are being identified to Program for prioritization against the Program's FY-07 \$30M T&R pool. Contractor negotiations for mission execution content vs. retirement scope are on going. Budget strategies are in development.



SSP Risk : 2758 Detail Report

Open Date: 6/12/2006

Status as of: 3/10/2009

ECD:

Cost Summary

FY	Hi Mit. (\$M)	Most Like. Mit. (\$M)	Lo Mit. (\$M)	Cost in Scope (\$M)	Hi Recovery (\$M)	Most Like. Recovery (\$M)	Lo Recovery (\$M)	Comments
FY02	0	0	0	0	0	0	0	
FY03	0	0	0	0	0	0	0	
FY04	0	0	0	0	0	0	0	
FY05	0	0	0	0	0	0	0	
FY06	0	0	0	0	0	0	0	
FY07	0	0	0	0	0	0	0	
FY08	0	0	0	0	0	0	0	
FY09	0	0	0	0	0	0	0	
FY10	0	0	0	0	0	0	0	
FY11	0	0	0	0	0	0	0	
FY12	0	0	0	0	0	0	0	
FY13	0	0	0	0	0	0	0	
FY14	0	0	0	0	0	0	0	
FY15	0	0	0	0	0	0	0	
FY16	0	0	0	0	0	0	0	
FY17	0	0	0	0	0	0	0	
FY18	0	0	0	0	0	0	0	
FY19	0	0	0	0	0	0	0	
FY20	0	0	0	0	0	0	0	

Totals (\$M)	0	0	0	0	0	0	0	
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SSP Risk : 2758 Detail Report

Open Date: 6/12/2006

Status as of: 3/10/2009

ECD:

Mitigation Summary

Mitigation Plan: (a) Continue Communicating with Program for requirements (on going).

Fallback Plan:

Task No.	Task Description	Team	Individual	ECD	ACD	Resulting Magnitude	Success Criteria
						L x C	
1	Follow-on PPBE action cost update	Shuttle_Proc	Rita Willcoxon	08/15/2007	08/20/2007	Red	
2	Work with Program to cover post 2010 T&R budget	Shuttle_Proc	Rita Willcoxon	04/27/2009		Green	Receive Funding



SSP Risk : 2758 Detail Report

Open Date: 6/12/2006

Status as of: 3/10/2009

ECD:

Safety Information

Safety Assessor: RandyHancock	S&MA Escalation: None	S&MA L x C:	Ready for Review: Yes
Safety Risk: No			
Rationale: At this time, no appreciable safety impacts have been identified; SMA will continue to monitor and reassess as necessary.			
Agree with Project Characterization?: Yes			
Project Characterization Rationale:			
Agree with Project Mitigation Plan?: Yes			
Project Mitigation Plan Rationale:			
Has Coordination with Project Started?: Yes			
Project Coordination Status:			



SSP Risk : 2808 Detail Report

Open Date: 7/31/2006

Status as of: 3/10/2009

ECD: 8/31/2008

Title: SSP Cost Threat: Transition and Retirement			Status: Open		Escalation: TDR		Timeframe: Mid		
Risk Statement: Given the fact that the Space Shuttle Program phaseout activities for FY2011 and beyond have not been requested by Congress, and will not be addressed until the FY2010 President's budget request; there is a possibility that there will be an impact to the Shuttle Program's and centers' ability to execute these tasks in a timely manner. This represents a risk to follow-on programs, institutions, and the agency as a whole.									
Context: The Space Shuttle Program's retirement consists of close-out and transfer actions. The Space Shuttle Program (SSP) phase out through FY 2010 is budgeted within the SSP budget. However, activities for FY 2011 and beyond have not been requested from Congress. This request will occur for the first time during the FY 2010 President's Budget Request.									
Risk Owner: klucht		Phone Number: (321) 861-1089		Owning Team: Transition		Likelihood		X	
Flights Affected:		Orgs Affected: SP_Transition, BusMgmt		2		Consequences			
						Safety: 0			
						Supportability: 0			
						Mission Success: 0			
								Schedule: 0	
								Cost: 5	
Mitigation Cost (\$M)			Cost in Scope (\$M)			Recovery Cost (\$M)			
High: 0	Most Likely: 1300		Low: 0		Total Mit. Budget: 0		High: 0	Most Likely: 0	
								Low: 0	
Cost Breakdown: Cost estimate was generated from a programmatic "grass-roots" estimate. Mitigation plans will likely result in alternative property disposition methods which are likely to refine the estimate/reduce the cost threat.									
Safety Risk: No					Ready for Review: Yes				
Closure\Acceptance Criteria: This risk may be closed when post-2010 SSP transition & retirement requirements have been formally addressed within the agency budget.									
Closure\Acceptance Rationale:									
Current Status: 11/4/2008 The integrated divestment plan and cost estimate for the most efficient and cost effective disposition of SSP assets post-2010 has been incorporated into the agency PPBE 2010 submission. This risk will move into a WATCH mode until 2010. -----									
7/9/2008 SSP Program Manager's Recommend submitted to SOMD on 5/5/08. Revised T&R PPBE10 guidance has been issued. The fundamental strategy of the PPBE10 Rev1 exercise is to come up with the required work/resources and cost for the bare minimum effort on all fronts. Work continues to converge on the formal Program Manager's Recommend to be held on 7/23/08 with a formal submission to SOMD on 7/29/08. -----									
4/24/2008 Detailed estimates have been received from Shuttle performing Elements and integrated at the Program level. A preliminary recommend was presented at the SSP Program									



SSP Risk : 2808 Detail Report

Open Date: 7/31/2006

Status as of: 3/10/2009

ECD: 8/31/2008

Manager's Review on 4/11/08. Follow-on work continues to converge on the formal Program Manager's Recommend to be submitted to SOMD on 5/5/08. -----

1/31/08

Draft Transition & Retirement guidance has been developed for PPBE 2010 in coordination with HQ SOMD and HQ Infrastructure & Administration Office. The Shuttle Program has been challenged to develop a closeout and transition plan with a cost-constrained target for FY 2011 - FY 2015. The results will be submitted in May through the PPBE process. Any impacts to this risk will be identified at that time. -----

12/11/2007

A series of meetings have been held with HQ Infrastructure & Administration Office and SOMD to develop an integrated plan for property disposition to be incorporated into the PPBE 2010 guidance. This guidance is in draft form and is currently under review at HQ. Official guidance will be issued to the Shuttle Program in January 2008. -----

9/19/2007: Two SSP mitigation tasks were completed and submitted to SOMD as planned in August. The revised cost estimate was accepted by SOMD, but was not incorporated in the Agency's PPBE 2009 submit. This risk has been updated to reflect the revised cost estimate and new mitigation tasks have been identified to facilitate the development of a coordinated plan with the Space Shuttle Program, SOMD and Institutional Offices. This plan will be used to refine the activities as part of the PPBE 2010 planning process.



SSP Risk : 2808 Detail Report

Open Date: 7/31/2006

Status as of: 3/10/2009

ECD: 8/31/2008

Cost Summary

FY	Hi Mit. (\$M)	Most Like. Mit. (\$M)	Lo Mit. (\$M)	Cost in Scope (\$M)	Hi Recovery (\$M)	Most Like. Recovery (\$M)	Lo Recovery (\$M)	Comments
FY02	0	0	0	0	0	0	0	
FY03	0	0	0	0	0	0	0	
FY04	0	0	0	0	0	0	0	
FY05	0	0	0	0	0	0	0	
FY06	0	0	0	0	0	0	0	
FY07	0	0	0	0	0	0	0	
FY08	0	0	0	0	0	0	0	
FY09	0	0	0	0	0	0	0	
FY10	0	0	0	0	0	0	0	
FY11	0	565	0	0	0	0	0	
FY12	0	394	0	0	0	0	0	
FY13	0	222	0	0	0	0	0	
FY14	0	67	0	0	0	0	0	
FY15	0	52	0	0	0	0	0	
FY16	0	0	0	0	0	0	0	
FY17	0	0	0	0	0	0	0	
FY18	0	0	0	0	0	0	0	
FY19	0	0	0	0	0	0	0	
FY20	0	0	0	0	0	0	0	

Totals (\$M)	0	1300	0	0	0	0	0	
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SSP Risk : 2808 Detail Report

Open Date: 7/31/2006

Status as of: 3/10/2009

ECD: 8/31/2008

Mitigation Summary

Mitigation Plan: This risk is being mitigated through several coordinated actions to further refine the technical tasks required to execute transition and retirement of SSP assets following the completion of the Program, understand/partner turnover of key assets/facilities to follow-on programs, and minimize the overall impact to the agency.

Fallback Plan: If this risk is not completely mitigated through the PPBE 2010 process, any remaining risk will be identified and worked as a forward action.

Task No.	Task Description	Team	Individual	ECD	ACD	Resulting Magnitude	Success Criteria
						L x C	
1	Define "Minimum End-State" - define what is necessary to safe & deservice the Orbiters, SSMEs, ETs and RSRM segments and prepare for long-term storage (with no protection for future work or transportation of those assets).	SP_Transition	Charles Salkowski	08/15/2007	08/15/2007	Red	End product will be a comprehensive narrative description of the minimum end-state configuration for the Orbiters, SSMEs, and any residual ETs and SRB segments which may be used to define/bound the programmatic tasks required for closeout.
2	Re-estimate T&R closeout tasks. In coordination with SSP Project Elements, utilize the "minimum end-state" defined in task #2 to re-estimate the costs/workforce required to complete minimum programmatic closeout tasks. Resubmit to SOMD for consideration in agency budget planning.	Tran-Resources	Karen Lucht	08/15/2007	08/15/2007	Red	A revised set of tasks and resource estimates which reflect the minimum programmatic requirements associated with SSP closeout.



SSP Risk : 2808 Detail Report

Open Date: 7/31/2006

Status as of: 3/10/2009

ECD: 8/31/2008

3	Work with SOMD and HQ Infrastructure & Administration Office to develop an integrated plan to further refine property disposition tasks and identify alternative disposition methods.	Tran-Resources	Karen Lucht	02/01/2008	01/31/2008	Red	An integrated plan for property disposition developed by SOMD, HQ I&A and SSP to be issued as guidance for PPBE 2010.
4	In coordination with SOMD, HQ Infrastructure & Administration Office, and center institutional property offices; develop a divestment plan and associated cost estimate for the most efficient and cost effective disposition of SSP property post-2010. SSP will provide also technical data and engineering estimates in support of this task.	Tran-Resources	Karen Lucht	08/31/2008	07/31/2008	Yellow	End product will be an integrated divestment plan and cost estimate for the most efficient and cost effective disposition of SSP assets post-2010 for incorporation into the agency PPBE 2010 submission.



SSP Risk : 2808 Detail Report

Open Date: 7/31/2006

Status as of: 3/10/2009

ECD: 8/31/2008

Safety Information

Safety Assessor: JohnDolan	S&MA Escalation: None	S&MA L x C:	Ready for Review: Yes
Safety Risk: No			
Rationale:			
Agree with Project Characterization?: Yes			
Project Characterization Rationale:			
Agree with Project Mitigation Plan?: Yes			
Project Mitigation Plan Rationale:			
Has Coordination with Project Started?: Yes			
Project Coordination Status:			



Changes to Shuttle Human Capital Risks



Project	Contractor	CS
SSP	(2983) Loss of Critical Personnel	(2984) Loss of Critical Personnel
PROJECT		
ET	(2654) Critical Skills	(2774) Critical Skill Retention
ET	(2815) ET Production to Meet the Manifest Cb	
FOI	(2782) Workforce Retention Plan for Mission Execution	(2781) Workforce Retention Plan for Mission Execution
KSC S&MA	(2817) S&MA Workforce Retention	(2816) S&MA Workforce Retention
Mgmt Integ	(2789) Contractor retention risk due to Program Termination	(2788) Civil Service retention risk due to Program Termination
MOD	(2768) Retention of Critical Skill Positions through End of Program	(3079) Retention of Critical Skill Positions through End of Program
Orbiter	(2763) workforce (Orbiter Vehicle Engineering) retention for mission execution	(2762) Workforce Retention for Mission Execution
	(2798) (Orbiter GFE/FCE) workforce retention plan for mission execution	
	(2799) (Orbiter Integrated Logistics) workforce retention for mission execution	
	(2824) workforce (MDA) retention for mission execution	
RSRB	(2693) USA SRBE Critical Skills / Expertise Retention	(2302) Critical Skills/Expertise Retention
	(2741) USA SRBE Workforce Synergy with Constellation	
	(2830) ATK RSRM Critical Skills / Expertise Retention	
S&MA	Both (2773) Loss of Critical S&MA Personnel (MSFC) ▲	Both (2773) Loss of Critical S&MA Personnel (MSFC) ▲
	Both (3060) Loss of JSC S&MA Skills	Both (3060) Loss of JSC S&MA Skills
SEI	(2765) Manpower Retention	(2764) Workforce Retention
	(2938) PSE&I USA Critical Skills Cb	(2784) Critical Skills / Expertise Retention (P_SEI)
Shuttle Proc	Contractor (2750) Workforce Retention	(2287) Workforce Retention
SP Tran	(2918) Potential Loss of Shuttle Environmental Assurance Initiative Capability	(2918) Potential Loss of Shuttle Environmental Assurance Initiative Capability
SSME	Contractor (2822) Critical Skills ▲	(2660) Critical Skills
Summary	Last TRR 4 Risks dropped a level ▲ 0 Risk elevated a level 4 Risks Added (3060, 2815, 2788, & 2789) N 0 Risks Closed	This TRR 2 Risks dropped a level ▲ 0 Risks elevated a level 0 Risks Added N Risk 2938 combined into 2765 Cb The critical skills portion of Risk 2815 combined into Risk 2654 Cb



SSP Risk : 2750 Detail Report

Open Date: 5/25/2006

Status as of: 3/10/2009

ECD:

Title: Contractor Workforce Retention	Status: Open	Escalation: TOR	Timeframe: None
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Risk Statement: Given the majority of the Space Shuttle workforce resides in the contractor community and the follow up Programs may drive personnel reductions and skills mix changes; there is a possibility that the contractor community may not retain the critical skills required to successfully support Shuttle Processing thru end of Program.

Context: The majority of the Space Shuttle workforce resides in the contractor community. NASA follow-up Programs may drive contractor personnel reductions and skills mix changes. Contractors may not be able to retain the critical skills required to safely and successfully support Shuttle Processing thru end of Program. Contractor employee retention efforts in place or completed include: manager attended training "Love 'em or Lose 'em", release of expanded Severance Plan (stay longer / collect more \$), established Critical Skills Retention Bonus Plan, implemented a review of employee Recognition / Reward program, and increased emphasis on employee awareness by NASA and Contractor management. USA also carries this risk with likelihood 4 and consequence 3 for schedule. Group Capability Model, USA developed tool, has effectively identified areas of concern. Mitigating actions were applied which have resulted in keeping this concern under control. Actions taken included: organizational consolidations; job enrichment working groups to integrate, coordinate and communicate activities aimed at employee satisfaction; facilitating arrangements to borrow back employees with special skills that have transferred within the company; facilitating arrangements for "reach back" into member companies to supplement skill shortfalls; continue to survey the available workforce for skilled candidates; continue employee retention bonus program. This risk is associated to Shuttle Program Transition Risk 2983.

Risk Owner: rgwillco	Phone Number: 321-867-4343	Owning Team: Shuttle_Proc	Likelihood	X	Consequences		
Flights Affected:		Orgs Affected: BusMgmt, SP_Transition, KSC_SMA, Shuttle_Proc	4		Safety: 0		
					Supportability: 0		
					Mission Success: 0		
					Schedule: 3		
				Cost: 0			

Mitigation Cost (\$M)			Cost in Scope (\$M)	Recovery Cost (\$M)		
High: 0	Most Likely: 0	Low: 0	Total Mit. Budget: 0	High: 0	Most Likely: 0	Low: 0

Cost Breakdown:

Safety Risk: No

Ready for Review: Yes

Closure\Acceptance Criteria:

Closure\Acceptance Rationale:

Current Status: 3/6/2009: Workforce Council met February 18, 2009. Contractor loss of critical skills remains stable with USA overall attrition 2.7% based on January '09 data. Contractor continues to support NASA PH efforts including implementation of morale initiatives. USA Group Capability Model, USA developed tool, has effectively identified areas of concern. Mitigating actions were applied which have resulted in keeping this concern under control (organizational consolidations; job enrichment working groups to integrate, coordinate and communicate activities aimed at employee satisfaction; facilitating arrangements to borrow back employees with special skills that have transferred within the company; facilitating arrangements for "reach back" into member companies to supplement skill shortfalls; continue to survey the available workforce for skilled candidates; continue employee



SSP Risk : 2750 Detail Report

Open Date: 5/25/2006

Status as of: 3/10/2009

ECD:

retention bonus program.) -----
 2/20/2009: Workforce Council met February 18, 2009. Contractor loss of critical skills remains stable with USA overall attrition 2.7% based on January '09 data. Contractor continues to support NASA PH efforts including implementation of morale initiatives. USA Group Capability Model, USA developed tool, has effectively identified areas of concern. Mitigating actions were applied which have resulted in keeping this concern under control (organizational consolidations; job enrichment working groups to integrate, coordinate and communicate activities aimed at employee satisfaction; facilitating arrangements to borrow back employees with special skills that have transferred within the company; facilitating arrangements for "reach back" into member companies to supplement skill shortfalls; continue to survey the available workforce for skilled candidates; continue employee retention bonus program.) This risk to be de-escalated from TDR to TOR by RMWG. -----

1/22/2009: Workforce Council met January 8, 2009. Contractor loss of critical skills remains stable with USA attrition levels 2.7% overall (December '08 data). Contractor continues to support NASA PH efforts including implementation of morale initiatives. USA carries this risk with likelihood 4 and consequence 3 for schedule. USA Group Capability Model, USA developed tool, has effectively identified areas of concern. Mitigating actions were applied which have resulted in keeping this concern under control (organizational consolidations; job enrichment working groups to integrate, coordinate and communicate activities aimed at employee satisfaction; facilitating arrangements to borrow back employees with special skills that have transferred within the company; facilitating arrangements for "reach back" into member companies to supplement skill shortfalls; continue to survey the available workforce for skilled candidates; continue employee retention bonus program.) This risk escalated to TDR to brief at SSP-PRCB TRR 11/6/08. This risk to be de-escalated from TDR. -----

11/6/2008: Workforce Council met November 4, 2008. Contractor loss of critical skills remains stable with USA attrition levels for August '08 slightly lower than August '07. Contractor continues to support NASA PH efforts including implementation of morale initiatives. USA carries this risk with likelihood 4 and consequence 3 for schedule. USA Group Capability Model, USA developed tool, has effectively identified areas of concern. Mitigating actions were applied which have resulted in keeping this concern under control (organizational consolidations; job enrichment working groups to integrate, coordinate and communicate activities aimed at employee satisfaction; facilitating arrangements to borrow back employees with special skills that have transferred within the company; facilitating arrangements for "reach back" into member companies to supplement skill shortfalls; continue to survey the available workforce for skilled candidates; continue employee retention bonus program.) Shuttle Processing Top Risk Review 10/6/07 risk consequence of schedule 4 lowered to schedule 3. This risk was escalated to TDR to brief at SSP-PRCB TRR 11/6/08. This risk to be de-escalated from TDR. -----

10/8/2008: Workforce Council met October 7, 2008. Contractor loss of critical skills has remained stable with USA attrition levels for August '08 slightly lower than August '07. Contractor continues to support NASA PH efforts including implementation of morale initiatives. USA carries this risk with likelihood 4 and consequence 3 for schedule. USA Group Capability Model, USA developed tool, has effectively identified areas of concern. Mitigating actions were applied which have resulted in keeping this concern under control. Actions taken included: organizational consolidations; job enrichment working groups to integrate, coordinate and communicate activities aimed at employee satisfaction; facilitating arrangements to borrow back employees with special skills that have transferred within the company; facilitating arrangements for "reach back" into member companies to supplement skill shortfalls; continue to survey the available workforce for skilled candidates; continue employee retention bonus program. Given current posture the Shuttle Processing Top Risk Review 10/6/07 risk consequence of schedule 4 lowered to schedule 3 with escalation to TDR to brief at next SSP-PRCB TRR. -----

9/26/2008: PH Workforce Council met August 6, 2008. Contractor loss of critical skills has remained stable. Contractor continues to support NASA PH efforts including implementation of morale initiatives.

USA carries this risk as a 4 (likelihood) and a 3 (consequence) yellow. Group Capability Model, USA developed tool, has effectively identified areas of concern. Mitigating actions were applied which have resulted in keeping this concern under control.

Actions taken included: organizational consolidations; job enrichment working groups to integrate, coordinate and communicate activities aimed at employee satisfaction; facilitating arrangements to borrow back employees with special skills that have transferred within the company; facilitating arrangements for "reach back" into member companies to supplement skill shortfalls; continue to survey the available workforce for skilled candidates; continue employee retention bonus program. (consider lowering risk score to consequence of 3) -----

7/14/2008: The USA SPOC Critical Employee Retention Plan was presented to eligible employees the first week of January 2008. The most recent quarterly PH Workforce Council



SSP Risk : 2750 Detail Report

Open Date: 5/25/2006

Status as of: 3/10/2009

ECD:

meeting took place June 27, 2008, discussed depth charts critical skills. Group Capability Model effectively identifying areas of critical concern. Contractor supporting NASA PH in implementation of morale initiatives. -----

4/17/2008: The USA SPOC Critical Employee Retention Plan was presented to eligible employees the first week of January 2008. The most recent quarterly PH Workforce Council meeting took place March 26, 2008, discussed depth charts critical skills. -----

2/15/2008: The USA SPOC Critical Employee Retention Plan was presented to eligible employees the first week of January 2008. The most recent quarterly PH Workforce Council meeting took place February 12, 2008. -----

11/28/2007: USA SPOC Critical Employee Retention Plan to be rolled out to employees December 2007. Retention plan addresses future threats for loss of critical personnel. -----

11/16/2007: USA SPOC Critical Employee Retention Plan is being evaluated by NASA/JSC legal for signature. Retention plan addresses future threats for loss of critical personnel. Retention plan will be in place as soon as signed. USA has also informed personnel of a revised severance pay which increases with employee longevity. -----

9/18/2007: PH Workforce Council formed to manage Shuttle Processing critical workforce through end of SSP. Reviewed potential health monitoring concepts at first council meeting and reported status at Space Shuttle Program Quarterly Review held July 31, 2007. Plan to conduct quarterly Workforce Council meetings. -----

7/18/2007: USA's employee retention plans expected to be complete end of summer, as stated in a letter from the CEO/COO to all employees, dated 30 May 2007. PH Workforce Council proactively met with USA to discuss actions and tools for managing positions with critical certifications. -----

7/13/2007: USA's employee retention plans expected to be complete end of summer, as stated in a letter from the CEO/COO to all employees, dated 30 May 2007. -----

6/13/2007: USA has released a letter to all employees 5/30/07 describing enhancements to the severance policy available to personnel, with references to additional considerations still under review. -----

5/1/2007: The Human Capital implementation details are being worked. Workforce acceptance of the plan requires all foreseeable difficulties be assessed and mitigated where possible. -----

3/12/2007: USA is at work on implementation of retention agreement.

2/22/2007: Contractor participating in a Human Capital interchange meeting at JSC with Shuttle Program and Transition March 1 & 2. USA has received the signed retention agreement from HQ and is at work on implementation.

1/10/2007: USA has reached an agreement in principle with the contracting officer. The agreement carries budget implications and will be addressed in the budget process.

9/27/2006: The USA Human Capital Retention Plan was submitted to Rick Schmidgall (Houston). Feedback indicates that although the Plan was believed to be partnered, subsequent evaluation by the Shuttle Program has resulted in the belief that further negotiations would take place which would possibly incorporate the Plan in the SPOC. SFOC contract ends September 30, 2006, as of October 1, 2006 USA will be working on letter contract as in-between (up to 180 days) from SFOC to SPOC.

7/26/2006: Continue to support Center Projects and Contractors Human Capital teams. Contractor Human Capital Plans are being coordinated with the COTR.

6/7/2006: Supporting Projects, Centers, and Contractors Human Capital teams. -----



SSP Risk : 2750 Detail Report

Open Date: 5/25/2006

Status as of: 3/10/2009

ECD:



SSP Risk : 2750 Detail Report

Open Date: 5/25/2006

Status as of: 3/10/2009

ECD:

Cost Summary

FY	Hi Mit. (\$M)	Most Like. Mit. (\$M)	Lo Mit. (\$M)	Cost in Scope (\$M)	Hi Recovery (\$M)	Most Like. Recovery (\$M)	Lo Recovery (\$M)	Comments
FY02	0	0	0	0	0	0	0	
FY03	0	0	0	0	0	0	0	
FY04	0	0	0	0	0	0	0	
FY05	0	0	0	0	0	0	0	
FY06	0	0	0	0	0	0	0	
FY07	0	0	0	0	0	0	0	
FY08	0	0	0	0	0	0	0	
FY09	0	0	0	0	0	0	0	
FY10	0	0	0	0	0	0	0	
FY11	0	0	0	0	0	0	0	
FY12	0	0	0	0	0	0	0	
FY13	0	0	0	0	0	0	0	
FY14	0	0	0	0	0	0	0	
FY15	0	0	0	0	0	0	0	
FY16	0	0	0	0	0	0	0	
FY17	0	0	0	0	0	0	0	
FY18	0	0	0	0	0	0	0	
FY19	0	0	0	0	0	0	0	
FY20	0	0	0	0	0	0	0	

Totals (\$M)	0	0	0	0	0	0	0	
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SSP Risk : 2750 Detail Report

Open Date: 5/25/2006

Status as of: 3/10/2009

ECD:

Mitigation Summary

Mitigation Plan: (a) Continue to communicate status to program. (b) Additional integration with COTR and contractor as needed. (c) Support Projects, Centers, and Contractor Human Capital teams.

Fallback Plan:

Task No.	Task Description	Team	Individual	ECD	ACD	Resulting Magnitude	Success Criteria
						L x C	
1	Establish PH Workforce Council	Shuttle_Proc	Rita Willcoxon	07/09/2007	07/09/2007	Red	
2	USA's Employee Retention Actions	Shuttle_Proc	Rita Willcoxon	09/28/2007	11/28/2007	Red	
3	USA Employee Retention Actions Rollout Effects	Shuttle_Proc	Rita Willcoxon	03/31/2008	03/31/2008	Yellow	USA, no discernable change in workforce.
6	Employee Morale and Recognition Initiatives	Shuttle_Proc	Rita Willcoxon	09/30/2008	09/30/2008	Yellow	On-Going
4	PH Workforce Council Recommendations (mitigations)	Shuttle_Proc	Rita Willcoxon	09/30/2008	09/30/2008	Yellow	
5	Monthly Monitoring of Critical Skills Retention	Shuttle_Proc	Rita Willcoxon	09/30/2008	09/30/2008	Yellow	On-Going on a monthly basis



SSP Risk : 2750 Detail Report

Open Date: 5/25/2006

Status as of: 3/10/2009

ECD:

Safety Information

Safety Assessor: RandyHancock	S&MA Escalation: None	S&MA L x C:	Ready for Review: Yes
Safety Risk: No			
Rationale: SMA continuously monitors Shuttle support activities for impacts associated with loss of critical skills; at this point, no significant detrimental effects have been noted.			
Agree with Project Characterization?: Yes			
Project Characterization Rationale:			
Agree with Project Mitigation Plan?: Yes			
Project Mitigation Plan Rationale:			
Has Coordination with Project Started?: Yes			
Project Coordination Status:			



SSP Risk : 2983 Detail Report

Open Date: 8/22/2007

Status as of: 3/10/2009

ECD: 9/30/2010

Title: Loss of Critical Contractor Personnel	Status: Open	Escalation: TPR	Timeframe: None
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Risk Statement: Given the expected attrition related to successful return to flight, acceleration of the Explorations programs and projects, and program end of life; there is a possibility that that the program will not be able to retain contractor personnel needed to continue shuttle operations.

Context: It is expected that following the successful return to flight, some program contractor personnel will migrate into new positions. Further, it is thought that additional program personnel will be attracted by the Exploration program and projects and leave shuttle within the following year. Lastly, with a guaranteed end of program life it is expected that contractor personnel will attempt to find longer-term employment prior to the last shuttle mission. Overall, these three factors could potentially result in continuous staffing pressure over the remaining program life.

Risk Owner: sleibert	Phone Number: 281 483-3220	Owning Team: BusMgmt	Likelihood	X	Consequences		
Flights Affected:		Orgs Affected: CXP, SP_Transition	3		Safety: 2		
					Supportability: 3		
					Mission Success: 0		
					Schedule: 0		
				Cost: 0			

Mitigation Cost (\$M)			Cost in Scope (\$M)	Recovery Cost (\$M)		
High: 0	Most Likely: 0	Low: 0	Total Mit. Budget: 0	High: 0	Most Likely: 0	Low: 0

Cost Breakdown:

Safety Risk: Yes

Ready for Review: Yes

Closure\Acceptance Criteria: Implementation of contractor workforce retention plans that address each of these factors

Closure\Acceptance Rationale:

Current Status:2/23/2009

Co-hosted joint Communications/Human Capital Tim 1/28-29/09. Attended by 40 participants from contractor and civil service and communications, human capital, and program communities. Good updates from HQs and good sharing of best practices across all orgs. Second confidence survey is open...due to close 2/27/09.

11/24/2008

Completed the first Manager/Supervisor Confidence Survey of Civil Service Managers. For their contractor workforce, they said Shuttle is 76% green for next 6 months. And that, for the end of the Program, Shuttle is 43% green and 14% red for contractor workforce. (KSC 21%).

11/14/08--Conducted end of FY08 Contractor Assessments--consisting of briefings by the Prime Contractors to the Program Manager. All have implemented a range of retention strategies--including monetary incentives (as appropriate.) Attrition rates appear to be stabilizing.



SSP Risk : 2983 Detail Report

Open Date: 8/22/2007

Status as of: 3/10/2009

ECD: 9/30/2010

11/24/08--Program Manager approved changing this risk from a 3 x 5 to 3x3

7/14/2008

The Contract Modification for PWR's Retention Plan has been signed and PWR is in the process of rolling out their plan. GAO Closed out Shuttle Workforce Audit on June 20th with no findings or recommendations. May 30, Prime contractors reported on attrition and retention metrics and general human capital status.

5/6/2008

Contract modification to implement the External Tank Retention Plan signed last week of April. Lockheed Martin has started to roll out the plan to their employees.

4/22/2008

Hosted Human Capital Council meeting with HR Directors from the contractor, HQs and Center communities. Focused on sharing best practices, discussing concerns on the release of the workforce strategy, and discussing the upcoming Technical Interchange Meeting.

4/22/2008

Agency Workforce Strategy--*Participated with Headquarters on the Strategy delivered to Congress. Key messages:
--The numbers don't include (or aren't fully developed): Workforce for lunar activities and other contracts yet to be awarded; Unallocated Reserves for Orion, Ares I, Ares V & Altair; Commercial Orbital Transportation Services, Coff, or SSP T&R
--Other reasons: Shuttle work is well defined & predictable; Low/Lean Shuttle budget reserves, Ares I, and Orion projects in early phases: production, assembly, and launch site work is still not fully defined, nor are contractor WYEs fully mapped to work locations
Most Centers/Contractors either sent out a letter to employees or hosted an all hands meeting. Anecdotal feedback indicates an increase in anxiety levels or desire for more specifics...particularly from USA, LM, and PWR.

1/29/2008

Recommendation to change risk to 3 x 5 approved by Program Manager. USA rolled out their retention incentive plan in Dec 07 Lockheed is expected to announce their plan in Jan/Feb 08 PWR is completing negotiations on their proposal

12/10/2007

Recommendation: Change risk to 3 x 5 (red). The Program has approved 3 of 4 contractor retention plans and is working with the 4th contractor. USA and ATK have begun implementation of their plan, with Lockheed Martin to follow soon. The Program will continue to monitor implementation and effectiveness of the plans. Eight of ten Project/Element risks on loss of critical contractor personnel are yellow/green.

10/4/2007 Per Program Management approval during the 10/4/07 SSP PRCB Top Risk Review, risk escalated to Top Program Risk.

9/28/2007 Risk escalated to TDR. Propose escalation to TPR.

8/22/2007 Opening this risk to focus on contractor personnel. It is based in risk 2505.

Second Human Capital Council held on Aug 3. Focus was on sharing best practices on communications. Visited MAF/Lockheed Martin to discuss retention challenges and strategies. Request to contractors to evaluate their Human Capital Plans sent out—due in September

7/31/2007 Recommendation: Split "Loss of Critical Personnel" into two risks—contractor personnel and civil service personnel

Rationale: --The make up of the workforce is different --Perception of job security is different --While many of the mitigation tools are similar, implementation strategies are/will be different. --As a result, risks are at different levels



SSP Risk : 2983 Detail Report

Open Date: 8/22/2007

Status as of: 3/10/2009

ECD: 9/30/2010

----- 7/16/2007

First HC Council Meeting held on May 8--focused on education and sharing best practices on "Stay Interviews" Second HC Council Meeting planned for Aug 3--focusing on communications. Looking at industry attrition information and rates--potential for benchmarking study Lead for Shuttle HC has met with PWR to receive overview of company, discuss attrition and retention, and tour facilities. Similar visit to Lockheed Martin planned. Kicking off effort to ask Contractors for evaluations of their HC Plans. First round of "reports" due in September.

3/28/2007--Planning HC Council to include HR Directors from KSC, JSC, MSFC, SSC, ATK, PWR, USA, LM, Boeing, and HQs. Forum for education, to share best practices, and communicate key messages. First meeting planned for October.

3/28/2007--Conducted HC Technical Interchange Meeting March 1 & 2. Included KSC, JSC, MSFC, SSC, PWR, USA, LM, ATK, Boeing, and HQs. 60 attendees from HC, Program, and Transition communities. Goals met: education, strengthening network, shared best practices, surfaced issues, and began action planning.

1/16/2007--Developing Technical Interchange Meeting for Human Capital Community at the 4 Human Space Flight Centers and HQs to educate folks on the issues and tools, develop additional tools, and share lessons learned across Centers.

10/06--With other members of MD, investigating the potential use of a workforce model (systems dynamics). Also investigating the potential to partner with KSC on similar efforts they have underway.

8/06--Contractor Human Capital Retention Plans were delivered and briefed at QPMR. PWR (SSME and Propulsion Testing) and ATK were given the go-ahead to proceed with their plans. Have subsequently asked Lockheed Martin to relook at their proposal due to the fact they won the CEV contract. In addition, USA (and critical subs) retention plan will be addressed as part of SPOC negotiations.

06/14/06--the Program Manager issued direction to Project Elements to work with their Prime Contractors to develop HC Plans. The Contractor Plans are due August 18
4/4/2006

The Human Capital Section of the Agency Transition Plan has been written. The Section has been reviewed and concurred on by the Office of Human Capital Management at HQs, Directors of Human Resources/Human Capital at the field centers, and representatives from the Station and Constellation Programs. The Transition Plan will be briefed to Senior Agency management at the SMC on April 13.

4/4/2006
The Space Shuttle Human Capital Plan has been written and will be submitted to Congress soon. The Plan has been reviewed and concurred on by the Office of Human Capital Management at HQs, Directors of Human Resources/Human Capital at the field centers, Center Directors (or designees) at the Space Operations Centers, the Space Shuttle Projects/Elements, and representatives from the Station and Constellation Programs. In addition, the Plan has been briefed to the Manager, Space Shuttle Program; Associate Administrator for Space Operations Mission Directorate; Associate Administrator for Exploration Mission Directorate and associated staff organizations.

11/15/05: Transition TIM held to discuss critical skill retention strategies and tools to assist elements in developing their own human capital management plan.

6/9/05: Concern changed to Risk Type and escalated to TPR status per PRCB direction. Ownership was transferred to the Strategic Planning Office. SMA drafted this as a concern on June 3, in order to propose that the program manager assign this to an appropriate owner for further definition and action.



SSP Risk : 2983 Detail Report

Open Date: 8/22/2007

Status as of: 3/10/2009

ECD: 9/30/2010

Cost Summary

FY	Hi Mit. (\$M)	Most Like. Mit. (\$M)	Lo Mit. (\$M)	Cost in Scope (\$M)	Hi Recovery (\$M)	Most Like. Recovery (\$M)	Lo Recovery (\$M)	Comments
FY02	0	0	0	0	0	0	0	
FY03	0	0	0	0	0	0	0	
FY04	0	0	0	0	0	0	0	
FY05	0	0	0	0	0	0	0	
FY06	0	0	0	0	0	0	0	
FY07	0	0	0	0	0	0	0	
FY08	0	0	0	0	0	0	0	
FY09	0	0	0	0	0	0	0	
FY10	0	0	0	0	0	0	0	
FY11	0	0	0	0	0	0	0	
FY12	0	0	0	0	0	0	0	
FY13	0	0	0	0	0	0	0	
FY14	0	0	0	0	0	0	0	
FY15	0	0	0	0	0	0	0	
FY16	0	0	0	0	0	0	0	
FY17	0	0	0	0	0	0	0	
FY18	0	0	0	0	0	0	0	
FY19	0	0	0	0	0	0	0	
FY20	0	0	0	0	0	0	0	

Totals (\$M)	0	0	0	0	0	0	0	
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SSP Risk : 2983 Detail Report

Open Date: 8/22/2007

Status as of: 3/10/2009

ECD: 9/30/2010

Mitigation Summary

Mitigation Plan: Mitigation Plan Overview: Work with the Projects to develop and implement Project-level Plans for their Prime Contractors which would include retention tools and criteria, organizational design options, and alternative staffing methods. The Plans would also include workforce management and metrics.

1. Available retention Tools include:

- Retention Incentives-Individual & Groups • Awards Program • Temporary Promotions
- 2. As appropriate—use organizational design. • Matrix format in the line organization to enable easy transfer of skills between Programs • Direct support within Projects for unique skills
- 3. Use appropriate alternative staffing methods when critical losses occur • Re-employed annuitants • Experts and consultants • Part-time

Fallback Plan:

Task No.	Task Description	Team	Individual	ECD	ACD	Resulting Magnitude	Success Criteria
						L x C	
1	Transition TIM	SSP	Sue Leibert		11/03/2005	Red	Dissemination of tools and strategies available to retain critical skills and manage entire workforce needs.
2	Identify project-level skills risks	SSP	Sue Leibert		07/14/2006	Red	Documentation of skills risks for all projects within SIRMA.
3	Workforce Management Plans	SSP	Sue Leibert		09/27/2006	Red	Documented critical skill and workforce management plans for each project.
4	HC TIM	SSP	Sue Leibert		03/02/2007	Red	Education on HR and roles and responsibilities of the Centers and Contractors; strengthening the HR network; sharing best practices. Over 60 attendees from ATK, PWR, LM, USA, Boeing, HQs, JSC, KSC, MSFC, and SSC--from Transition, Program, and HR communities
5	HC Council	SSP	Sue Leibert		05/08/2007	Red	Establish a Council of HR Directors from the Prime Contractors and the Centers. Goals: communication, share best practices, surface and address issues
6	Evaluation of Contractor HC Plans 07	SSP	Sue Leibert	10/30/2007	11/09/2007	Red	documentation and assessment of current activities



SSP Risk : 2983 Detail Report

Open Date: 8/22/2007

Status as of: 3/10/2009

ECD: 9/30/2010

7	Skills Mapping	SSP	Sue Leibert	02/28/2008	04/01/2008	Red	Participating in Agency effort to map Shuttle employee skills to Station and Cx
8	Evaluation of Contractor HC Plans 08	SSP	Sue Leibert	10/30/2008	11/14/2008	Yellow	documentation and assessment of progress in HC arena
9	Evaluation of Contractor HC Plans 09	SSP	Sue Leibert	10/30/2009		Yellow	documentation and assessment of progress in HC arena



SSP Risk : 2983 Detail Report

Open Date: 8/22/2007

Status as of: 3/10/2009

ECD: 9/30/2010

Safety Information

Safety Assessor: JohnDolan	S&MA Escalation: None	S&MA L x C: 3 x 2	Ready for Review: Yes
Safety Risk: Yes			
Rationale: Concur with 3x2 safety risk designation assigned by risk owner.			
Agree with Project Characterization?: Yes			
Project Characterization Rationale:			
Agree with Project Mitigation Plan?: Yes			
Project Mitigation Plan Rationale:			
Has Coordination with Project Started?: Yes			
Project Coordination Status:			



SSP Risk : 2984 Detail Report

Open Date: 8/22/2007

Status as of: 3/10/2009

ECD: 9/30/2010

Title: Loss of Critical Civil Service Personnel			Status: Open		Escalation: TPR		Timeframe: None		
Risk Statement: Given the expected attrition related to successful return to flight, acceleration of the Explorations programs and projects, and program end of life; there is a possibility that the program will not be able to retain civil service personnel needed to continue shuttle operations									
Context: It is expected that following the successful return to flight, some program civil service personnel will migrate into new positions. Further, it is thought that additional program personnel will be attracted by the Exploration program and projects and leave shuttle within the following year. Lastly, with a guaranteed end of program life it is expected that civil service personnel will attempt to find longer-term employment prior to the last shuttle mission. Overall, these three factors could potentially result in continuous staffing pressure over the remaining program life.									
Risk Owner: sleibert		Phone Number: 281 483-3220		Owning Team: BusMgmt		Likelihood		Consequences	
Flights Affected:		Orgs Affected: SP_Transition, CXP		3		X		Safety: 2 Supportability: 3 Mission Success: 0 Schedule: 0 Cost: 0	
Mitigation Cost (\$M)			Cost in Scope (\$M)			Recovery Cost (\$M)			
High: 0	Most Likely: 0		Low: 0		Total Mit. Budget: 0		High: 0	Most Likely: 0	Low: 0
Cost Breakdown:									
Safety Risk: Yes					Ready for Review: Yes				
Closure\Acceptance Criteria: Implementation of civil service personnel retention plans that address each of these factors									
Closure\Acceptance Rationale:									
Current Status: 2/23/2009 Co-hosted joint Communications/Human Capital Tim 1/28-29/09. Attended by 40 participants from contractor and civil service and communications, human capital, and program communities. Good updates from HQs and good sharing of best practices across all orgs. Second confidence survey is open...due to close 2/27/09. ----- ----- 11/24/2008 Results of recent Civil Service Confidence Survey indicate that Civil Service Supervisors are more confident about next 6 months than end of Shuttle Program--Shuttle is 91% green for next 6 months for CS workforce. For the end of the Shuttle Program-- Shuttle is 64% green and 4% red for CS workforce. August--results of the Employee Survey indicate over 70% of civil service employees working Shuttle intent to stay until the end of the Program. ----- 7/14/2008									



SSP Risk : 2984 Detail Report

Open Date: 8/22/2007

Status as of: 3/10/2009

ECD: 9/30/2010

7/16/2007 First HC Council Meeting held on May 8--focused on education and sharing best practices on "Stay Interviews" Second HC Council Meeting planned for Aug 3--focusing on communications. Looking at industry attrition information and rates--potential for benchmarking study Second Shuttle Employee Survey closed on July 13. Intent to stay with the Program has stayed the same. More detailed analysis and briefings to come. Kicking off effort to ask Centers for evaluations of their HC Plans. First round of "reports" due in September.

3/28/2007--Planning HC Council to include HR Directors from KSC, JSC, MSFC, SSC, ATK, PWR, USA, LM, Boeing, and HQs. Forum for education, to share best practices, and communicate key messages. First meeting planned for October.

3/28/2007--Conducted HC Technical Interchange Meeting March 1 & 2. Included KSC, JSC, MSFC, SSC, PWR, USA, LM, ATK, Boeing, and HQs. 60 attendees from HC, Program, and Transition communities. Goals met: education, strengthening network, shared best practices, surfaced issues, and began action planning. 1/16/2007--Developing Technical Interchange Meeting for Human Capital Community at the 4 Human Space Flight Centers and HQs to educate folks on the issues and tools, develop additional tools, and share lessons learned across Centers.

10/06--With other members of MD, investigating the potential use of a workforce model (systems dynamics). Also investigating the potential to partner with KSC on similar efforts they have underway.

9/06--Civil service plans were submitted from KSC, SSC, MSFC, and JSC. Civil service and contractor proposals have been briefed to the Program Manager and a number of HQs offices. Briefed ASAP on Shuttle Human Capital Planning and Survey results. 06/14/06--the Program Manager issued direction to Project Elements to work with their Centers on developing HC Plans for Civil Servants which are due September 15.

7/18/06--the Program Manager was briefed on the results of the Shuttle Employee Survey. Over 44% of the employees surveyed at KSC, JSC, MSFC, and SSC responded to the survey. The Center Directors, HR Directors, and other staff members at KSC, JSC, MSFC, SSC, and HQs will be briefed on the results 8/3/06

4/4/2006--The Human Capital Section of the Agency Transition Plan has been written. The Section has been reviewed and concurred on by the Office of Human Capital Management at HQs, Directors of Human Resources/Human Capital at the field centers, and representatives from the Station and Constellation Programs. The Transition Plan will be briefed to Senior Agency management at the SMC on April 13.

4/4/2006--The Space Shuttle Human Capital Plan has been written and will be submitted to Congress soon. The Plan has been reviewed and concurred on by the Office of Human Capital Management at HQs, Directors of Human Resources/Human Capital at the field centers, Center Directors (or designees) at the Space Operations Centers, the Space Shuttle Projects/Elements, and representatives from the Station and Constellation Programs. In addition, the Plan has been briefed to the Manager, Space Shuttle Program; Associate Administrator for Space Operations Mission Directorate; Associate Administrator for Exploration Mission Directorate and associated staff organizations.

2/5/2006--Collecting data and plans as part of the budget process. 11/15/05-- Transition TIM held to discuss critical skill retention strategies and tools to assist elements in developing their own human capital management plan. 6/9/05: Concern changed to Risk Type and escalated to TPR status per PRCB direction. Ownership was transferred to the Strategic Planning Office. SMA drafted this as a concern on June 3, in order of propose that the program manager assign this to an appropriate owner for further definition and action.



SSP Risk : 2984 Detail Report

Open Date: 8/22/2007

Status as of: 3/10/2009

ECD: 9/30/2010

June 20, GAO hosted Exit Conference on Shuttle Workforce activities--no recommendations or findings.
 Rolled out survey for Shuttle supervisors to assess their confidence to support the Program for next 6 months and through the end of the Program for both CS and contractor workforce. Also asking their assessment of the effectiveness workforce sharing.
 Planning joint TIM between Communications and Human Capital communities to discuss Communication as a Change Management Tool.

4/22/2008

Agency Workforce Strategy--Participated with Headquarters on the Strategy delivered to Congress. Key messages:

--The numbers don't include (or aren't fully developed): Workforce for lunar activities and other contracts yet to be awarded Unallocated Reserves for Orion, Ares I, Ares V & Altair Commercial Orbital Transportation Services, Coff, or SSP T&R

--Other reasons: Shuttle work is well defined & predictable Low/Lean Shuttle budget reserves, Ares I, and Orion projects in early phases: production, assembly, and launch site work is still not fully defined, nor are contractor WYEs fully mapped to work locations

Most Centers/Contractors either sent out a letter to employees or hosted an all hands meeting. Anecdotal feedback indicates an increase in anxiety levels or desire for more specifics...particularly from USA, LM, and PWR. -----

4/22/2008 Preparing new metric to measure supervisors confidence in ability to support Program (from workforce point of view) for next 6 months and through end of program. Also will ask for feedback on effectiveness of workforce sharing.

4/22/2008

Hosted Human Capital Council meeting on 4/18--shared best practices, concerns due to release of workforce strategy, and upcoming Communication/Human Capital TIM -----

1/29/2008

Recommendation to change risk to 3 x 3 approved by Program Manager. -----

12/10/2007

Recommendation: Change risk to 3 x 3 (yellow). In 2006, the four Centers developed and submitted Human Capital Plans. They recently completed the first year assessment. All are continuing or have implemented a number of strategies to retain personnel and/or ensure adequate bench strength. These include: matrix structure, job sharing, and continuing to hire to support Shuttle. Seven of nine project/element risks related to civil service retention are yellow/green to maintain critical skills. Will continue to monitor their efforts. -----

10/4/2007 Per Program Management approval during the 10/4/07 SSP PRCB Top Risk Review, risk escalated to Top Program Risk.

9/28/2007 Risk escalated to TDR. Propose escalation to TPR.

8/22/2007 Opening this risk to focus on civil service personnel. It is based in risk 2505.

Second Human Capital Council held on Aug 3. Focus was on sharing best practices on communications. Request to Centers to evaluate their Human Capital Plans will go out by September 1—due in October.

7/31/2007 Recommendation: Split "Loss of Critical Personnel" into two risks—contractor personnel and civil service personnel

Rationale: --The make up of the workforce is different --Perception of job security is different --While many of the mitigation tools are similar, implementation strategies are/will be different. --As a result, risks are at different levels



SSP Risk : 2984 Detail Report

Open Date: 8/22/2007

Status as of: 3/10/2009

ECD: 9/30/2010

Cost Summary

FY	Hi Mit. (\$M)	Most Like. Mit. (\$M)	Lo Mit. (\$M)	Cost in Scope (\$M)	Hi Recovery (\$M)	Most Like. Recovery (\$M)	Lo Recovery (\$M)	Comments
FY02	0	0	0	0	0	0	0	
FY03	0	0	0	0	0	0	0	
FY04	0	0	0	0	0	0	0	
FY05	0	0	0	0	0	0	0	
FY06	0	0	0	0	0	0	0	
FY07	0	0	0	0	0	0	0	
FY08	0	0	0	0	0	0	0	
FY09	0	0	0	0	0	0	0	
FY10	0	0	0	0	0	0	0	
FY11	0	0	0	0	0	0	0	
FY12	0	0	0	0	0	0	0	
FY13	0	0	0	0	0	0	0	
FY14	0	0	0	0	0	0	0	
FY15	0	0	0	0	0	0	0	
FY16	0	0	0	0	0	0	0	
FY17	0	0	0	0	0	0	0	
FY18	0	0	0	0	0	0	0	
FY19	0	0	0	0	0	0	0	
FY20	0	0	0	0	0	0	0	

Totals (\$M)	0	0	0	0	0	0	0	
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SSP Risk : 2984 Detail Report

Open Date: 8/22/2007

Status as of: 3/10/2009

ECD: 9/30/2010

Mitigation Summary

Mitigation Plan: Work with the Centers to develop and implement Human Capital Plans which would include retention tools and criteria, organizational design options, and alternative staffing methods. The Plans would also include workforce management and metrics. 1. Available retention Tools include: • Retention Allowance-Individual & Groups • Retention Bonus • Critical Pay Authority • NASA Excepted Appointments • Awards Program • Qualifications Pay • Temporary Promotions • Relocation and Redesignation Bonuses

2. As appropriate—use organizational design. • Matrix format in the line organization to enable easy transfer of skills between Programs • Direct support within Projects for unique skills

3. Use appropriate alternative staffing methods when critical losses occur • Temporary Hires (< 1 year) • Term Hires (1 year <) • NASA Excepted • Emergency Appointments • Re-employed annuitants • Experts and consultants • Intergovernmental Personnel Agreements • Part-time • Telecommuting arrangements • Rotations/TDY

Fallback Plan:

Task No.	Task Description	Team	Individual	ECD	ACD	Resulting Magnitude	Success Criteria
						L x C	
1	Transition TIM	SSP	Sue Leibert		11/03/2005	Red	Dissemination of tools and strategies available to retain critical skills and manage entire workforce needs.
2	Employee Survey 06	SSP	Sue Leibert		06/15/2006	Red	Survey SSP Employees on intent to stay with the Program and what would motivate them to stay
3	Identify project-level skills risks	SSP	Sue Leibert		07/14/2006	Red	Documentation of skills risks for all projects within SIRMA
4	HC TIM	SSP	Sue Leibert		03/02/2007	Yellow	Education on HR and roles and responsibilities of the Centers and Contractors; strengthening the HR network; sharing best practices. Over 60 attendees from ATK, PWR, LM, USA, Boeing, HQs, JSC, KSC, MSFC, and SSC--from Transition, Program, and HR communities
5	Employee Survey 07	SSP	Sue Leibert		07/13/2007	Yellow	Survey Shuttle employees on intent to stay with Program and what motivates them to stay
6	Employee Survey 08	SSP	Sue Leibert	07/30/2008	08/15/2008	Yellow	Survey Shuttle employees on intent to stay with Program and what motivates them to stay



SSP Risk : 2984 Detail Report

Open Date: 8/22/2007

Status as of: 3/10/2009

ECD: 9/30/2010

7	Evaluation of Center HC Plans 08	SSP	Sue Leibert	12/30/2008	12/30/2008	Yellow	documentation and assessment of progress in HC arena
8	Shuttle Employee Survey 09	SSP	Sue Leibert	07/30/2009		Yellow	Survey Shuttle employees on intent to stay with Program and what motivates them to stay
9	Evaluation of Center HC Plans 09	SSP	Sue Leibert	10/30/2009		Yellow	documentation and assessment of progress in HC arena



SSP Risk : 2984 Detail Report

Open Date: 8/22/2007

Status as of: 3/10/2009

ECD: 9/30/2010

Safety Information

Safety Assessor: JohnDolan	S&MA Escalation: None	S&MA L x C: 3 x 2	Ready for Review: Yes
Safety Risk: Yes			
Rationale: Concur with 3x2 safety risk designation assigned by risk owner.			
Agree with Project Characterization?: Yes			
Project Characterization Rationale:			
Agree with Project Mitigation Plan?: Yes			
Project Mitigation Plan Rationale:			
Has Coordination with Project Started?: Yes			
Project Coordination Status:			



SSP Risk : 2815 Detail Report

Open Date: 8/7/2006

Status as of: 3/10/2009

ECD: 9/30/2010

Title: ET Production to Meet the SSP Manifest	Status: Open	Escalation: TPR	Timeframe: None
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Risk Statement: Given the impacts of the Columbia accident and Hurricane Katrina on the ET Project's ability to sustain tank production; there is a possibility that tanks can't be produced at a rate to meet the SSP manifest.

Context: Due to the Columbia accident and Hurricane Katrina, ET production has not kept pace with SSP needs. The Columbia accident investigation brought process improvements, facility upgrades and enhanced training to the ET production flow. Return to Flight (RTF) was a schedule and resource consuming process. Roughly + 2 years separated the Columbia accident and STS-114 (RTF). In addition, ET-120 was cannibalized as a test bed. Hurricane Katrina damaged the NASA Michoud Assembly Facility (MAF), damaged external tanks in-work at MAF (ET-122 and ET-118) and destroyed the infrastructure of the surrounding area devastating the lives of the MAF workforce. Retaining skilled personnel in the storm damages New Orleans area will be difficult. Katrina's impact will be felt for the life of the SSP.

The potential loss of ET-120 and ET-122 as flight assets and the lasting effects of the Columbia accident and Hurricane Katrina; may leave the ET Project unable to meet the current SSP manifest.

Risk Owner: overtw	Phone Number: 256-544-6862	Owning Team: ET	Likelihood	X	Consequences	
Flights Affected: Program		Orgs Affected: ET, SSP, CXP			4	Safety: 0
					Supportability: 3	
					Mission Success: 0	
					Schedule: 3	
					Cost: 0	

Mitigation Cost (\$M)			Cost in Scope (\$M)	Recovery Cost (\$M)		
High: 0	Most Likely: 0	Low: 0	Total Mit. Budget: 0	High: 0	Most Likely: 0	Low: 0

Cost Breakdown:

Safety Risk: No

Ready for Review: Yes

Closure\Acceptance Criteria:

Closure\Acceptance Rationale:

Current Status: 1/20/2009

The SSP has released planning manifest 09A-17. The ET Project continues to coordinate tank production with the SSP. With the release of the latest manifest, the ET Project's support of the latest schedule has improved significantly. The ET Project is scheduled to base line new completion dates for the remaining tanks on contract in early March-2009. -----

10/28/2008

Discussions are underway with Upper Stage, Ares I, Ares V, and Constellation programs for transfer of current MAF manufacturing floorspace. Impacts/issues with the existing external tank production schedule versus potential delays in transfer/modification of MAF facility/floorspace have been identified and elevated for resolution. -----



SSP Risk : 2815 Detail Report

Open Date: 8/7/2006

Status as of: 3/10/2009

ECD: 9/30/2010

9/25/2008

MSFOC coordination is underway at MAF. Efforts proceeding to mitigate potential issues/obstacles as January 2009 implementation approaches. -----

9/4/2008

The effects of hurricane Gustav on the MAF facility are being assessed. First reports are of no significant damage. The facility was closed the week of September 1 th with hopes of resuming normal production activities September 8 th. Impacts to tank completion dates are TBD. -----

7/29/2008

ET-127 arrived on dock at KSC on July 15. ET-129 is scheduled to be complete at MAF NLT August 11. On July 10 Lockheed Martin brought forth revised production schedules for External tanks 129-132 that more closely supported the SSP's need dates. These improved tank completion dates are contributed to implementation of spiral 1 and 2 producibility initiatives, lessons learned, learning curve gains, and MAF to KSC work transfers. The ET Project continues to work closely with the SSP Manifest and Schedules office to coordinate tank deliveries. -----

7/1/2008

Close coordination continues with the SSP as the ET Project strives to support the 08A-39 flight manifest. Completion dates for ET-127 and ET-129 have been accelerated to meet SSP need dates. Subsequent tank deliveries are being worked with the SSP Manifest and Schedules office. Producibility enhancement initiatives continue to be implemented as quickly as feasible in hopes of building additional manifest flexibility. -----

4/28/2008

The ET Project is working closely with the SSP Manifest and Schedules Office to coordinate deliveries to support the 08A-23 manifest. All tank production schedules are stashed bi-monthly with the SSP. This manifest requires ET-127 and ET-129 to be completed in July and August, respectively, of 2008. It also accelerates the delivery of ET-138 to a June 2010 timeframe. -----

4/22/2008

ET-127 is currently scheduled to be completed at MAF on 7/24/08. -----

3/4/2008

ET-128 is scheduled to complete on 3/16/08 and ship with no open work. ET-128 to arrive on-dock at KSC on 3/21/08. Discussions continue with the SSP Schedules and Manifest Office in regard to tank deliveries supporting the remainder of the manifest. -----

2/22/2008

ET-128 is scheduled to be DD-250 on 3/8/08. Leaves dock at MAF on 3/9/08 and arrives on dock at KSC on 3/14/08. -----

2/5/2008

A long range manifest assessment action, CR S042013HC, is due to the 2/14/08 PRCB. A comprehensive review of ET deliveries for the remainder of the program will be undertaken to support this assessment.

The ET-128 completion date at MAF has moved out from 1/29/08 to 2/28/08. This was presented at the 1/31/08 PRCB.

11/30/2007



SSP Risk : 2815 Detail Report

Open Date: 8/7/2006

Status as of: 3/10/2009

ECD: 9/30/2010

ET-126 was loaded on the barge at MAF on 11/25/07 and is scheduled to arrive on dock at KSC on 12/01/2007. All resources previously devoted to ET-126 are being applied to ET-128 in order to buy back schedule time (target of 1/29/08 completion). A ET-128 manufacturing recovery plan is in work. -----

9/20/2007

At the 9/20/07 PRCB the ET Project brought a proposed tank delivery schedule for review and approval at SSP mgt. request. All tank deliveries are baselined to be at KSC >80 days prior to launch. The new tank delivery schedule had been pre-coordinated with USA/KSC. Near term tank deliveries of 126 and 128 currently are behind the proposed complete dates but mitigation activities continue to improve their schedules. The ET Project is to status near term tank deliveries routinely at the PRCB. -----

7/31/2007

ET-120 arrived on dock at KSC on 7/29/07. Subsequent tank deliveries are all under review (u/r). -----

7/12/2007

ET-120's Validation and Verification (V & V) activities at MAF continue to drive external tank production. Resources have been drawn from subsequent tank production activities in order to overcome ET-120 V and V obstacles. ET-120 and subsequent tank completion dates are U/R. -----

7/2/2007

STS-117/ET-124 launch was successful. STS-118/ET-117 tentatively scheduled to launch on August 6, 2007. -----

6/5/2007

STS-117/ET-124 scheduled to launch June 8, 2007. STS-117 Flight Readiness Review held on May 30-31 concluded that ET-124 was ready for flight. -----

3/6/2007

STS-117/ET-124 experienced hail damage during a severe thunderstorm on 2/26/07. The assessment performed at the launch pad shows TPS damage from the LO2 tank ogive to the aft interface hardware (stations: Xt 371 to Xt 2058). The damage is 360 degrees in all quadrants of the tank. Rollback to the VAB is required to adequately assess the damage and make repairs. The ET Project has developed a preliminary repair scope for the damaged areas.

Impacts to the current manifest due to this event are being assessed. -----

10/23/2006

Program direction from Manifest summit was to utilize the 06C-6A manifest (2-4-5-5-3) for POP purposes. -----

10/15/2006

SSP Manifest TIM scheduled for 10/16/06 to re-scope launch schedules. -----

8/24/2006

Escalated to TPR per PRCB direction -----

8/7/2006

Per Robert Lightfoot at 7/31/06 MP01 TRR: create new risk that accounts for Columbia accident and Hurricane Katrina impacting External Tank production. Upon creation of this new risk; reference risk 2593 and close risk 2593 referencing this risk. -----



SSP Risk : 2815 Detail Report

Open Date: 8/7/2006

Status as of: 3/10/2009

ECD: 9/30/2010

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SSP Risk : 2815 Detail Report

Open Date: 8/7/2006

Status as of: 3/10/2009

ECD: 9/30/2010

Cost Summary

FY	Hi Mit. (\$M)	Most Like. Mit. (\$M)	Lo Mit. (\$M)	Cost in Scope (\$M)	Hi Recovery (\$M)	Most Like. Recovery (\$M)	Lo Recovery (\$M)	Comments
FY02	0	0	0	0	0	0	0	
FY03	0	0	0	0	0	0	0	
FY04	0	0	0	0	0	0	0	
FY05	0	0	0	0	0	0	0	
FY06	0	0	0	0	0	0	0	
FY07	0	0	0	0	0	0	0	
FY08	0	0	0	0	0	0	0	
FY09	0	0	0	0	0	0	0	
FY10	0	0	0	0	0	0	0	
FY11	0	0	0	0	0	0	0	
FY12	0	0	0	0	0	0	0	
FY13	0	0	0	0	0	0	0	
FY14	0	0	0	0	0	0	0	
FY15	0	0	0	0	0	0	0	
FY16	0	0	0	0	0	0	0	
FY17	0	0	0	0	0	0	0	
FY18	0	0	0	0	0	0	0	
FY19	0	0	0	0	0	0	0	
FY20	0	0	0	0	0	0	0	

Totals (\$M)	0	0	0	0	0	0	0	
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SSP Risk : 2815 Detail Report

Open Date: 8/7/2006

Status as of: 3/10/2009

ECD: 9/30/2010

Mitigation Summary

Mitigation Plan: Columbia Accident: Per the CAIB's recommendation, continue up-grading facilities, implementing process improvements and enhancing training.

Hurricane Katrina: Return the Michoud Assembly Facility (MAF) to pre-Katrina capability. Offer retention bonuses to employees with critical skills in order to avoid interruptions/stoppage in production. Increase hiring authority.
Define tank production schedule that meets the SSP manifest.

Fallback Plan:

Task No.	Task Description	Team	Individual	ECD	ACD	Resulting Magnitude	Success Criteria
						L x C	
1	Productivity Enhancement Initiatives	ET	Ward Overton	08/29/2007	08/29/2007	Red	Cell A processing time reduced to 33 days.
2	Repair MAF facilities and return to pre-Katrina capability.	ET	Ward Overton	09/06/2007	09/05/2007	Red	MAF returns to Pre-Katrina capability
3	TPS Spray and Mock-up Facility Activation	ET	Ward Overton	11/13/2007	11/13/2007	Yellow	Activation of TPS Spray and Mock-up Facility incorporating process improvements and enhanced training.
4	MSFOC Implementation	ET	Ward Overton	04/01/2009		Yellow	Seamless transition
5	Incorporate Producibility Enhancement Initiatives into the ET production process	ET	Ward Overton	09/01/2009		Yellow	Tank production cycle time is reduced. Tank completion dates support SSP need dates.
6	ET Project actively manages the ET production schedule	ET	Ward Overton	06/10/2010		Yellow	Tank production supports the SSP manifest
7	Coordinate/Communicate any change in manifest production schedule with SSP	ET	Ward Overton	07/09/2010		Green	SSP concurrence with ET production schedule



SSP Risk : 2815 Detail Report

Open Date: 8/7/2006

Status as of: 3/10/2009

ECD: 9/30/2010

Safety Information

Safety Assessor: LisaPHELPS	S&MA Escalation: CS	S&MA L x C: 4 x 3	Ready for Review: Yes
Safety Risk: No			
<p>Rationale: 1/20/09 While the producibility initiatives did improve schedule performance, MAF still can not meet the current need dates for SSP manifest. -----</p> <p>----- 10/1/09 Producibility Initiatives for ET-127 and ET-129 through MSERP and PRCB. -----</p> <p>----- 6/19/08 S&MA is evaluating all Producibility Initiatives to ensure no (or negligible) impact to flight safety. Hazard report and CIL impacts are being presented to the MSERP and PRCB as required.-----</p> <p>----- 12/5/07 This is still a schedule and support risk. After the delivery of ET-126, MAF if applying resources to ET-128 in order in an attempt to recover schedule.-----</p> <p>6/19/07 This risk was open to track any risks that may arise due to impact to ET production caused by the Columbia accident, Hurricane Katrina. The STS-117/ET-124 hail damage repair process was tracked here for impacts to manifest. At this time, this risk is a schedule and support risk only.</p>			
Agree with Project Characterization?: Yes			
Project Characterization Rationale: 2/29/08 This risk was created to account for the Columbia accident and Hurricane Katrina impacting ET production.			
Agree with Project Mitigation Plan?: Yes			
<p>Project Mitigation Plan Rationale: 1/20/09 With the release of 09A-17 planning manifest, the ET schedule has improved. The Project is planning a new base line containing new completion dates for the remaining tanks on contract for early Feb 09. ----- 6/19/08 Producibility Initiatives should improve schedule performance. ----- 3/4/08</p> <p>Minimum open work is to be shipped to KSC so ET-128 shipping DD250date has been moved to 3/16/08. How this change in schedule will affect the remaining tank deliveries on the manifest is still being evaluated.----- 9/19/07 ET-120 at KSC 7/29/07. MAF will present the new ET Delivery Plan and how it will impact the current manifest on 9/20.-----</p> <p>----- 6/19/07 STS-117/ET-124 launched 6/8/07. ET-120 is currently scheduled for launch in fall 07.</p>			
Has Coordination with Project Started?: Yes			
Project Coordination Status: 6/19/08 Producibility Initiatives have been worked in CERBs and Level III CCB. 6/19/07 Most all MAF facilities have been returned to pre-Katrina capabilities.			



SSP Risk : 2973 Detail Report

Open Date: 8/7/2007

Status as of: 3/10/2009

ECD:

Title: Flight Rate Supportability - During Ares I-X Processing	Status: Open	Escalation: None	Timeframe: None
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Risk Statement: Given the requirement for a Vehicle Assembly Building (VAB) integration cell to support Ares I-X will limit High Bay availability for the Space Shuttle Program; there is a possibility that Shuttle processing schedules and flight rate may be impacted.

Context: The VAB integration cells will be required for processing Shuttles and the Ares I-X Flight Test Vehicle. The current plan is to use one integration cell from April 2009 through July 2009 for Ares I-X processing and return it to the SSP following the Ares I-X launch. The Space Shuttle Program will have access to only one integration cell for approximately 8 months. Total of 3 SSP flights could be affected (STS-127, STS-128 and STS-129).

Risk Owner: rgwillco	Phone Number: 321-867-4343	Owning Team: Shuttle_Proc	Likelihood	X	Consequences		
Flights Affected:		Orgs Affected: Shuttle_Proc, SP_Transition, CXP	3		Safety: 0		
					Supportability: 3		
					Mission Success: 0		
					Schedule: 3		
				Cost: 0			

Mitigation Cost (\$M)			Cost in Scope (\$M)		Recovery Cost (\$M)		
High: 0	Most Likely: 0	Low: 0	Total Mit. Budget: 0		High: 0	Most Likely: 0	Low: 0

Cost Breakdown:

Safety Risk: No

Ready for Review: Yes

Closure\Acceptance Criteria:

Closure\Acceptance Rationale:

Current Status:3/6/2009: SSP Manifest planning continues to actively work on integrating detailed Ares I-X / Shuttle Processing schedules. Integration cell use for ARES I-X under review, planned use NET April 2009. Ares I-X planners part of weekly manifest meetings. If necessary Ares I-X schedule will be adjusted as required to not interfere with Shuttle processing which at this time is under assessment for changes including HST mission. Ares I-X schedule is also under review. -----

2/20/2009: SSP Manifest planning continues to actively work on integrating detailed Ares I-X / Shuttle Processing schedules. Integration cell use for ARES I-X under review, planned use NET April 2009. Ares I-X planners part of weekly manifest meetings. If necessary Ares I-X schedule will be adjusted as required to not interfere with Shuttle processing which at this time is under assessment for changes including HST mission. Ares I-X schedule is also under review. -----

1/23/2009: SSP Manifest planning continues to actively work on integrating detailed Ares I-X / Shuttle Processing schedules. Integration cell use for ARES I-X under review, planned use NET April 2009. Ares I-X planners part of weekly manifest meetings. If necessary Ares I-X schedule will be adjusted as required to not interfere with Shuttle processing which at this time is under assessment for changes including HST mission. Ares I-X schedule is also under review. -----



SSP Risk : 2973 Detail Report

Open Date: 8/7/2007

Status as of: 3/10/2009

ECD:

12/12/2008: SSP Manifest planning continues to actively work on integrating detailed Ares I-X / Shuttle Processing schedules. Integration cell use for ARES I-X under review, planned use NET April 2009. Ares I-X planners part of weekly manifest meetings. If necessary Ares I-X schedule will be adjusted as required to not interfere with Shuttle processing which at this time is under assessment for changes including HST mission. Ares I-X schedule is also under review. Given current posture Shuttle Processing Top Risk Review changed escalation from TOR to no escalation. -----

10/7/2008: SSP Manifest planning continues to actively work on integrating detailed Ares I-X / Shuttle Processing schedules. Integration cell use for ARES I-X under review, planned use NET October 2008. Ares I-X planners part of weekly manifest meetings. If necessary Ares I-X schedule will be adjusted as required to not interfere with Shuttle processing which at this time is under assessment for changes including HST mission delay. Ares I-X schedule is also under review. Given current posture Shuttle Processing Top Risk Review changed escalation from TOR to no escalation. -----

9/25/2008: SSP Manifest planning continues to actively work on integrating detailed Ares I-X / Shuttle Processing schedules. Integration cell turnover for ARES I-X is planned for October 2008. Ares I-X planners part of weekly manifest meetings. If necessary Ares I-X schedule will be adjusted as required to not interfere with Shuttle processing. -----

7/14/2008: SSP Manifest planning continues to actively work on integrating detailed Ares I-x / Shuttle Processing schedules. Integration cell turnover for ARES I-x is still planned for August 2008. Ares I-x planners part of weekly manifest meetings. If necessary Ares I-X schedule will be adjusted as required to not interfere with Shuttle processing. -----

6/27/2008: SSP Manifest planning continues to actively work on integrating detailed Ares I-x / Shuttle Processing schedules. Integration cell turnover for ARES I-x is still planned for August 2008. Ares I-x planners part of weekly manifest meetings. If necessary Ares I-X schedule will be adjusted as required to not interfere with Shuttle processing. -----

4/17/2008: SSP Manifest planning continues to actively work on integrating detailed Ares I-x / Shuttle Processing schedules. Integration cell turnover for ARES I-x is still planned for August 2008. Ares I-x planners part of weekly manifest meetings. If necessary Ares I-X schedule will be adjusted as required to not interfere with Shuttle processing. -----

2/13/2008: SSP Manifest planning continues to actively work on integrating detailed Ares I-x / Shuttle Processing schedules. Integration cell turnover for ARES I-x is still planned for August 2008. Ares I-x planners part of weekly manifest meetings. If necessary Ares I-X schedule will be adjusted as required to not interfere with Shuttle processing. -----

12/11/2007: DPM approval to de-escalate to TOR. 11/29/2007: SSP Manifest planning is actively working and integrating detailed Ares I-x / Shuttle Processing schedules. Integration cell turnover for ARES I-x is still planned for August 2008. Ares I-x planners part of weekly manifest meetings. -----

10/1/2007: Escalated to TDR per direction of Deputy Program Manager.

9/5/2007: SSP Manifest planning is actively working and integrating detailed Ares / Shuttle processing schedules. The Ares I-X team baselined their processing schedules in April of this year. We have incorporated Ares planners into our weekly manifest meetings. -----



SSP Risk : 2973 Detail Report

Open Date: 8/7/2007

Status as of: 3/10/2009

ECD:

Cost Summary

FY	Hi Mit. (\$M)	Most Like. Mit. (\$M)	Lo Mit. (\$M)	Cost in Scope (\$M)	Hi Recovery (\$M)	Most Like. Recovery (\$M)	Lo Recovery (\$M)	Comments
FY02	0	0	0	0	0	0	0	
FY03	0	0	0	0	0	0	0	
FY04	0	0	0	0	0	0	0	
FY05	0	0	0	0	0	0	0	
FY06	0	0	0	0	0	0	0	
FY07	0	0	0	0	0	0	0	
FY08	0	0	0	0	0	0	0	
FY09	0	0	0	0	0	0	0	
FY10	0	0	0	0	0	0	0	
FY11	0	0	0	0	0	0	0	
FY12	0	0	0	0	0	0	0	
FY13	0	0	0	0	0	0	0	
FY14	0	0	0	0	0	0	0	
FY15	0	0	0	0	0	0	0	
FY16	0	0	0	0	0	0	0	
FY17	0	0	0	0	0	0	0	
FY18	0	0	0	0	0	0	0	
FY19	0	0	0	0	0	0	0	
FY20	0	0	0	0	0	0	0	

Totals (\$M)	0	0	0	0	0	0	0	
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SSP Risk : 2973 Detail Report

Open Date: 8/7/2007

Status as of: 3/10/2009

ECD:

Mitigation Summary

Mitigation Plan: (a.) Continue to openly communicate schedule status to Program. (b.) Continue early impact identification and resolution of new technical/processing issues.

Fallback Plan:

Task No.	Task Description	Team	Individual	ECD	ACD	Resulting Magnitude	Success Criteria
						L x C	
1	SSP and Ares I-X Integrated Team assessment of processing schedule	Shuttle_Proc	Rita Willcoxon				



SSP Risk : 2973 Detail Report

Open Date: 8/7/2007

Status as of: 3/10/2009

ECD:

Safety Information

Safety Assessor: RandyHancock	S&MA Escalation: None	S&MA L x C:	Ready for Review: Yes
Safety Risk: No			
Rationale: Integrated scheduling planning efforts continue to be worked. The Ares I-X processing schedule will be adjusted to avoid interference with Shuttle milestones. SMA will continue to monitor and reassess as needed.			
Agree with Project Characterization?: Yes			
Project Characterization Rationale:			
Agree with Project Mitigation Plan?: Yes			
Project Mitigation Plan Rationale:			
Has Coordination with Project Started?: Yes			
Project Coordination Status:			



SSP Risk : 3029 Detail Report

Open Date: 3/19/2008

Status as of: 3/10/2009

ECD:

Title: SSFL Disposition	Status: Open	Escalation: TOR	Timeframe: Mid
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Risk Statement: Given the fact the nearly all real and personal property at SSFL is excess to NASA needs; there is a possibility that the return value of disposed assets will be less than the cost of the disposition activities.

Context:

Risk Owner: jmellis	Phone Number: 256-971-2614	Owning Team: Transition	Likelihood	X	Consequences		
Flights Affected:		Orgs Affected: Tran-MSFC	3		Safety: 0		
					Supportability: 0		
					Mission Success: 0		
					Schedule: 0		
				Cost: 3			

Mitigation Cost (\$M)			Cost in Scope (\$M)	Recovery Cost (\$M)		
High: 0	Most Likely: 0	Low: 0	Total Mit. Budget: 0	High: 0	Most Likely: 0	Low: 0

Cost Breakdown:

Safety Risk: Not Reviewed	Ready for Review: No
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Closure\Acceptance Criteria:

Closure\Acceptance Rationale:

Current Status:3/4/2009

At this time, the SSFL declaration of excess to Congress is awaiting the Administrator's signature. Completing the declaration of excess process will allow for the General Services Administration (GSA) to conditionally accept the site to begin property divestment procedures. Also, decreased scrap value worldwide as reported by vendors has created additional concern and the threat of potential additional costs will be carried through the PPBE-11 process -----

4/24/2008

The risk has been reduced to a 3x3 due to a better definition of requirements, a Memorandum of Agreement (between NASA, Boeing, and GSA), all prior property related actions being closed, and positive feedback from scrap vendors on value of assets to be disposed of.

Despite the positive feedback, there still remains a possibility of owing money on demolition and disposition costs. ----- 3/19/2008

This risk was just transferred to Mike Allen, the MSFC Transition Manager, from SSME. -----



SSP Risk : 3029 Detail Report

Open Date: 3/19/2008

Status as of: 3/10/2009

ECD:

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SSP Risk : 3029 Detail Report

Open Date: 3/19/2008

Status as of: 3/10/2009

ECD:

Cost Summary

FY	Hi Mit. (\$M)	Most Like. Mit. (\$M)	Lo Mit. (\$M)	Cost in Scope (\$M)	Hi Recovery (\$M)	Most Like. Recovery (\$M)	Lo Recovery (\$M)	Comments
FY02	0	0	0	0	0	0	0	
FY03	0	0	0	0	0	0	0	
FY04	0	0	0	0	0	0	0	
FY05	0	0	0	0	0	0	0	
FY06	0	0	0	0	0	0	0	
FY07	0	0	0	0	0	0	0	
FY08	0	0	0	0	0	0	0	
FY09	0	0	0	0	0	0	0	
FY10	0	0	0	0	0	0	0	
FY11	0	0	0	0	0	0	0	
FY12	0	0	0	0	0	0	0	
FY13	0	0	0	0	0	0	0	
FY14	0	0	0	0	0	0	0	
FY15	0	0	0	0	0	0	0	
FY16	0	0	0	0	0	0	0	
FY17	0	0	0	0	0	0	0	
FY18	0	0	0	0	0	0	0	
FY19	0	0	0	0	0	0	0	
FY20	0	0	0	0	0	0	0	

Totals (\$M)	0	0	0	0	0	0	0	
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SSP Risk : 3029 Detail Report

Open Date: 3/19/2008

Status as of: 3/10/2009

ECD:

Mitigation Summary

Mitigation Plan: Should the return value on disposed of assets be less than expected, contingency funding will be required from the Program.

Fallback Plan:

Task No.	Task Description	Team	Individual	ECD	ACD	Resulting Magnitude	Success Criteria
						L x C	
2	Better define roles and responsibilities	Transition	James Ellis	04/30/2008	04/30/2008	Red	
3	Seek input from scrap vendors for the potential return value of scrapped materials	Transition	James Ellis	04/30/2008	04/30/2008		
1	Complete all outstanding contract actions for property	Tran-MSFC	James Moore	04/30/2008	04/30/2008	Red	
4	Complete a Memorandum of Understanding between NASA and Boeing	Transition	James Ellis	09/30/2009	09/30/2009		



SSP Risk : 3029 Detail Report

Open Date: 3/19/2008

Status as of: 3/10/2009

ECD:

Safety Information

Safety Assessor: JeannieWood	S&MA Escalation: None	S&MA L x C:	Ready for Review: No
Safety Risk: Not Reviewed			
Rationale:			
Agree with Project Characterization?: Yes			
Project Characterization Rationale:			
Agree with Project Mitigation Plan?: Yes			
Project Mitigation Plan Rationale:			
Has Coordination with Project Started?: Yes			
Project Coordination Status:			



KSC Risk #KSC-07-001 Information Sheet



John F. Kennedy Space Center

Risk ID: KSC-07-001	Date Identified: 10/01/2007	Status as of: 11/12/2008	ECD: Ongoing
Risk Title: Execution of Institutional responsibilities jeopardized by insufficient transition and retirement funding post-2010			Risk Owner: TA
Risk Statement: (Condition; Consequence) Given the Space Shuttle Program will end in 2010; the lack of Program transition and retirement funding post 2010 will leave the Center and Agency incapable of properly dispositioning the facilities, personal property, records and software remaining after program retirement.			
Risk Context: Transition and retirement (T&R) is currently unfunded in Planning, Programming, Budgeting and Execution (PPBE) beyond 2010. The T&R PPBE10 Rev 1 budget guidance excluded institutional tasks not directly associated with accommodating CxP requirements, including disposition of records, software, and real and personal property. NASA HQ must negotiate waivers to Agency policies and outside agency regulations to minimize or eliminate the cost threats. The guidance also limited the funding timeframe to FY11-FY12, which will introduce cost threats to the Agency institutional organizations if required activities are not accomplished. For example, “all time critical tasks...completed by the end of FY12”, including having Orbiters ready for ferry flight – enabling the closure of several Shuttle facilities not required by the Center.			Risk Planning Approach: <input checked="" type="checkbox"/> Mitigate <input type="checkbox"/> Watch <input type="checkbox"/> Accept <input type="checkbox"/> Research Timeframe: <input checked="" type="checkbox"/> Near <input type="checkbox"/> Mid <input type="checkbox"/> Far
Likelihood: 5	Consequence: 4 (Highest Score of Consequence Attributes)		
	Safety: 2	Mission Success:	Supportability: 1 Cost: 4 Schedule:
Status: Inter-Center working group has been established to identify and manage transition issues; Center has identified the threats and is participating in Agency efforts to address the transition and funding items; Center remains aggressive in identifying transition concerns that have not been funded. SOMD T&R PPBE10 Rev 1 input only included those tasks associated with getting out of Constellation’s way or closing vendor locations and, therefore, tasks associated with real and personal property turnover to institution and record retention were not included. The costs of the KSC institutional impacts ranged from \$51M-\$111M and were identified in the SOMD PAA and the Center IIA. SOMD has verbally committed to funding record disposition, however, the remainder of the quantified threat to the Institution will remain even after the T&R budget is approved. Status and mitigation activities will be identified and tracked through the Transition Working Group.			
Recommended Risk Disposition/Rationale: Continue Tracking Mitigation			



KSC Risk #KSC-07-001 Information Sheet



John F. Kennedy Space Center

Risk ID: KSC-07-001

Risk Title: Execution of Institutional responsibilities jeopardized by insufficient transition and retirement funding post 2010

Top-Level Mitigation Strategy

Mitigation Plan: Inter-Center working group has been established to identify and manage transition issues, Center has identified the threats and is participating in Agency efforts to address the transition and funding items

Contingency Plan:

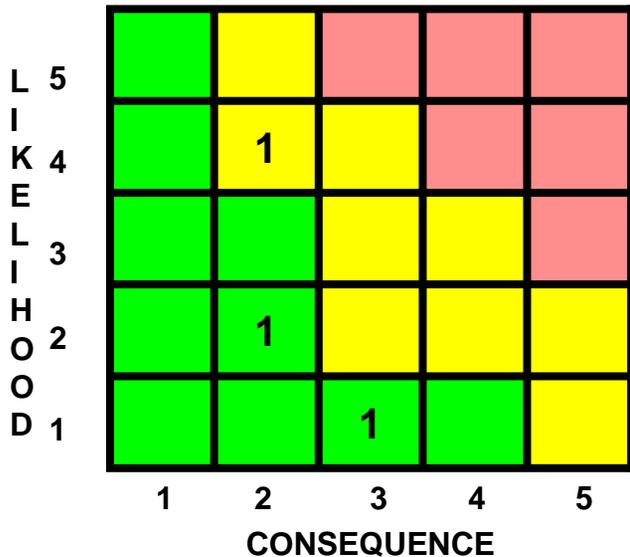
Status of Detailed Mitigation Actions

Task No.	Task Description	Actionee	ECD	ACD	Resulting L x C	Success Criteria
1	Actively participate in Agency working groups working to resolving transition and retirement issues.	PH/TA/LX	On-going			Waiver approvals; placement of Orbiters by the end of FY12; permission to abandon property in facilities; Agency funds Institutional cost threats
2	Submit KSC funding requirements for transition to PPBE 2010 and subsequent funding calls.	PH / AA-B	To SSP: 07/23/2008 SOMD PAA 08/09/2008 IIA: 08/11/2008			Inclusion in SOMD PAA, Agency submit to OMB, OMB approval
3	Continue KSC transition working group activities to provide concise budget information, quantify impacts, and propose contingency approaches to address Center issues associated with Shuttle program transition and retirement	All directorates	On-going			Open, on-going communication



Top Risks - SSME

Tuesday, March 17, 2009



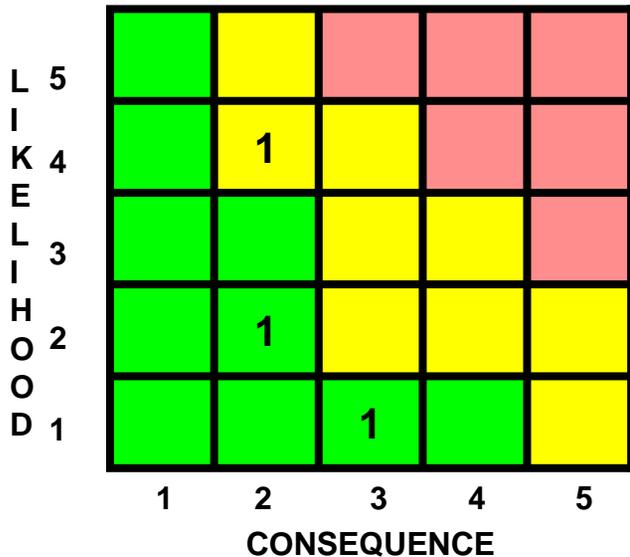
Risk NO	L X C	Title	Status	Risk Owner
1244	1 x 3 ↓ 2x2	Shuttle Manifest Extension	3/17/2009 Latest Presidential guidance is there will be no extension.	Randy Holland
1243	2 x 2 →	T & R End of Program Funding	2/12/2009 Risk identified by PD Risk POC	Randy Holland
1242	4 x 2 ↑ 3x2	SSME Contractor Critical Skills	3/17/2009 Constellation schedule modified from 1/20/2010 to 9/20/2010	Randy Holland

Note: Risk arrows indicate previous risk score and direction of mitigation based on status change and/or mitigation



Top Risks - SSME

Tuesday, March 17, 2009



Risk NO	L X C	Title	Status	Risk Owner
1244	1 x 3 ↓ 2x2	Shuttle Manifest Extension	3/17/2009 Latest Presidential guidance is there will be no extension.	Randy Holland
1243	2 x 2 →	T & R End of Program Funding	2/12/2009 Risk identified by PD Risk POC	Randy Holland
1242	4 x 2 ↑ 3x2	SSME Contractor Critical Skills	3/17/2009 Constellation schedule modified from 1/20/2010 to 9/20/2010	Randy Holland

Note: Risk arrows indicate previous risk score and direction of mitigation based on status change and/or mitigation

Risk Information Sheet

Center Ops-7

H

Group Access: Everyone

Planned Closure Date: Not Specified

<i>Likelihood</i>	<i>Risk Title</i>
4	Santa Susanna Field Laboratory (SSFL) Remediation Cleanup Levels (Funded by HQ ECR)
<i>Consequences</i>	<i>Risk Statement</i>
<i>Cost</i> 4	Given that the California Department of Toxic Substance Control is now considering requiring NASA to clean up the SSFL facility to meet the more stringent rural residential standards, there is a risk that the cleanup cost will increase 200-300 percent and that NASA will fail to meet the consent order schedule.
<i>Schedule</i> 3	
<i>Performance</i> 3	
<i>Safety</i> 1	

<i>Team</i>	<i>Owner</i>	<i>Category</i>	
AS10	Elliott, James	IMSB/CMC	
<i>Timeframe</i>	<i>Near</i> <input type="checkbox"/>	<i>Mid</i> <input checked="" type="checkbox"/>	<i>Far</i> <input type="checkbox"/>

Context

Approach *Research* *Mitigate* *Watch* *Accept*

Research Plan

Mitigation Plan

- 1) Participate in reviews of Boeing proposals and negotiations with California DTSC (Department of Toxic Substance Control). Completed 09/30/08.
- 2) Await notification from DTSC the consent Order changes to incorporate State Bill 990 requirements. Estimated completion 01/31/09. Actual Completion 12/19/08.
- 2a) MSFC AS10, MSFC Legal, HQ EMD, and HQ Legal are currently reviewing the draft Order. Several negotiations with DTSC, DOE, and Boeing are planned. Estimated completion 03/31/09.
- 3) Continue consultations with MSFC and HQ Legal offices for development of NASA's response. Estimated completion 03/31/09.
- 4) If litigation is required, defer to Legal office. Estimated completion 04/01/09.

Watch Plan/Tracking Requirements

- 1) Participate in reviews of Boeing proposals and negotiations with California DTSC (Department of Toxic Substance Control).
- 2) Await notification from DTSC the consent order changes to incorporate SB990 (State Bill 990) requirements.
- 3) Continue consultations with MSFC and HQ Legal offices for development of NASA's response.

Previous Status Comment

- 3/2/2009 Extended estimated completion dates for step 2a and 3.
- 1/23/2009 01/21/09: Included actual completion date to step 2. Included step 2a.
- 8/28/2008 1) Work with other responsible parties (DOE, Boeing) to develop an approach that minimizes the cost impacts while meeting intent of State's requirement.
2) Participate in negotiations with DTSC.
3) Request additional ECR funds through PPB&E process.

Risk Information Sheet

TPO-14

M

Group Access: Everyone

Planned Closure Date:

Likelihood

Risk Title

4

Potential Loss of MSFC Shuttle Environmental Assurance Initiative Capability

Consequences

Risk Statement

Cost 3

Given the condition that the Constellation Program has not identified funding to support the transition of the Shuttle Environmental Assurance Initiative (SEA) capability to CxP; there is a possibility that

Schedule 3

MSFC will lose the engineering and scientific technical skills associated with this capability with a

Performance 3

resulting impact on Ares, CxP, MSFC and Agency mission cost, schedule and performance.

Safety 1

Team

Owner

Category

ALL

Glover, Steve

Internal

Timeframe Near Mid Far

Context

The SEA team provides an integrated approach for the SSP to identify environmentally-driven materials obsolescence issues and to develop and implement mitigation plans. SEA is managed by the MSFC TPO. SEA represents a capability of critical skills and interfaces that should be transitioned to CxP and to other Programs as the SSP nears termination. CxP has identified the need for a Constellation Environmental Assurance Team (CEA) and has an open risk in IRMA (#1956). No resources have been identified to support a CEA. Unless funding is available prior to 2010, SEA will plan for retirement at the end of 2010, and will transfer lessons learned data and other documentation of SEA work to CxP. CxP representatives will continue to attend SEA meetings and receive SEA products, but no CxP specific issues will be worked by the SEA team.

Approach Research Mitigate Watch Accept

Mitigation Plan

The mitigation plan includes:

- 1) Elevate risk to MSFC management; brief CxP, HQ and MSFC management on the need for a CEA
- 2) Invite CxP representatives to SEA meetings
- 3) Provide SEA products to CxP
- 4) Develop a transition and retirement plan for SEA
- 5) Secure funding for future program
- 6) Begin transition of team to CxP or other Programs

Previous Status Comment

2/27/2009 2/27/09 SEA Transition and retirement plan is complete. SSP Level II risk describing the loss of the SEA capability will be closed and transferred to CxP. CxP representatives continue to participate in SEA meetings and receive SEA products, but CxP specific issues and risks beyond 2010 are not worked by the SEA team.



Risk Information Sheet

MAFT-7

M

Group Access: Everyone

Planned Closure Date: 12/17/2009

Likelihood

Risk Title

2

MAF Transformation Implementation Schedule

Consequences

Risk Statement

Cost

1

Given the magnitude and/or complexity of the remaining tasks to be completed prior to the MSFOC contractor taking over operations at MAF, there is a possibility that certain tasks may not be completed on schedule and their ability to complete their contracted tasks may be impaired

Schedule

4

Performance

4

Safety

1

Team

MAF-General

Owner

Wood, Malcolm

Category

IMSB/CMC

Timeframe Near Mid Far

Context

There are several areas which have significant open work which should be completed prior to contract award and/or during the 62 day Transition period to ensure a successful transition. Also, there are significant challenges to the new MSFOC which will should be successfully completed during the 62 day Transition period, including the transition of the existing LM Maximo system and the staffing of the new MSFOC (including obtaining personnel with the critical MAF O&M skills).

Approach Research Mitigate Watch Accept

Research Plan

During a 30 calendar day Research phase the Transformation plan and sub plans are out for baseline review. In addition, the detailed Transformation Plan is being finalized and will be maintained in collaboration with the MAF team, including the NASA team at MAF. The NASA 60 day plan is under development during this research phase. At the end of the Research phase, a decision will be made whether to "watch" the risk while the plans and schedules are actively managed and implemented, or to "mitigate" the risk if there is still a concern that the planning does not address the concerns which initiated the need for the risk.

Mitigation Plan

The basic plan is to baseline the MAF Transformation Plan and the MSFC 60 Day Phase -In Plan that describes how the transformation to the new facility contractor will occur. Activities outlined by these plans will be reflected in the Integrated Master Schedule being developed for MAF activities that are to occur prior to and during the transformation. A detail mitigation plan is defined below.



Previous Status Comment

- 3/2/2009 No new status at this time per Malcolm Wood (phone) Feb 21, 09.
- 1/13/2009 The MAF 60 Day Transition Plan was baselined on December 19, 2008. The MAF Transition schedule was merged with the MAF Integrated Master Schedule and was walked through line by line and updated with MAF NASA personnel the week of December 1, 2008. During the walkthrough, POC were assigned and links between activities were established as well as need dates. Continue to mitigate, but lower likelihood to 2
- 12/4/2008 FOC contract award date shifted to January 12, 09.
- 11/12/2008 Today got updates from Roy Young on progress and inserted completion dates for most of the mitigation steps. Only 2 steps need to be completed. Note, ePORT does not allow you to backdate completion dates. The date used for completion of the mitigation steps is the current date that the "completion box" is checked. Dates cannot be entered manually for completion.
- 10/27/2008 Roy Young input Oct 17, 2008. A meeting with KSC was conducted to discuss their recent facility contract award and lessons learned. Data from KSC will be incorporated into the 60 Day Phase-In Plan. The Transformation Schedule is being modified to identify work needed to be done prior to MSFOC award, work to be accomplished during the 60 day transition period and tasks to be completed after the 60 day transition period.
- 10/27/2008 Approved by I&O Board on Oct. 24th to convert from research to mitigate. Risk mitigation steps will be defined.
- 9/29/2008 Approved by Sheila.



Risk Information Sheet

MAFT-3

L

Group Access: Everyone

Planned Closure Date: 09/20/2009

<i>Likelihood</i>	<i>Risk Title</i>	
2	Lack of funding to implement the MAF time-phased Floor plan	
<i>Consequences</i>	<i>Risk Statement</i>	
<i>Cost</i> 2	Given that the Shuttle program does not have adequate Transition and Retirement (T&R) budget to disposition their MAF tooling, equipment, and materials at the end of the ET project, there is the possibility that the MAF Project may be left with the responsibility to clear the floor space at MAF to accomodate the Ares 5 project manufacturing.	
<i>Schedule</i> 2		
<i>Performance</i> 2		
<i>Safety</i> 1		
<i>Team</i>	<i>Owner</i>	<i>Category</i>
MAF-General	Jones, Kathy	Other
<i>Timeframe</i>	Near <input type="checkbox"/> Mid <input checked="" type="checkbox"/> Far <input type="checkbox"/>	

Context

Since neither the Shuttle Program or the MAF Office plan to have budget for relocating, maintaining, or disposing of ET tooling and storage hardware, no plan has been defined for relocating hardware in areas that have been based lined by ECR that may impact CxP schedules. Currently, (11/20/08) tooling required by Ares V has not been identified.

Production floor areas at MAF have been identified and reserved for use by CxP projects and base lined by ECR. Floor areas are identified for Ares V (core, EDS), Ares I (Upper Stage, Orion) etc. out through 2013. Presently, many of these areas are inhabited by ET production tooling and hardware. In July 09, the Shuttle Transition Office agreed to move any tooling or hardware in areas required by projects located in dedicated project areas prior to 2010. After 2010, ET tooling would be abandoned in place and transferred to other prospective owners (CxP or MAF). Also, tools located in areas identified as "shared" would be abandoned in place. Ares V is anticipating utilizing some of the ET production tools – that may require modification – but to date; these tools have not been identified. In addition, the resent decision to extend Shuttle flights through 2015 has not been resolved and will probably impact ET tooling requirements and use dates that may also impact CxP schedule requirements and floor plans. Currently, no plan has been defined as to who will be responsible for relocating or disposition of ET production tooling and storage hardware prior to CxP project use. It is not envisioned that MAF will have budget to maintain or disposition ET tooling and hardware if this cost is not provided by CxP projects or the Shuttle Program. A contingency plan needs to be developed that will address how MAF will be prepared to handle this effort if the cost to disposition hardware is not covered by other programs/projects.

Approach Research Mitigate Watch Accept

Team = DPM(Prop)



Research Plan

1. Gary Hudson will review with ET Transition Office what they intend to "abandon in place" and what funding will be used if tooling is required to be moved for other projects.
2. After ET Transition is fully understood, it's possible a task order could be submitted for LM to determine the cost to relocate tooling and crated hardware for excess.

Mitigation Plan

Risk Realization Cost: \$0

Risk Mitigation Cost: \$0

Watch Plan/Tracking Requirements

Currently MAF Office is waiting to see how the Shuttle Office will handle the disposition at MAF. Discussions are on going to understand the legal definition of "abandon in place" and implications. John Kress has agreed to initiate a Quick Look for LM to define what tooling should be retained for Ares V for 33' and 27.5' diameter, what should be transferred to the MSFOC, and what can be excessed. For tools to be retained or stored, LM will define how the tool should be stored and the cost to safe and maintain. At this time, the MAF budget does not include the cost to store, safe, or move tooling. A mitigation plan will be implemented if the following triggers occur:

1. ET Shuttle Office identifies significant amount of hardware that will be abandoned with no budget for removal and excess.
2. CxP determines they have no need for the abandoned tooling and no budget for removal and excess.

Acceptance Rationale

Management Comments

Previous Status Comment

3/6/2009 Roy Young has received the spreadsheet of property that is intended to definitize the items and the ET Last Need dates. Roy sent a note to the ET project/Shuttle ET Transition project requesting additional clification and information to enable development of the PPBE estimate.
Had a chance to review the Monique's 3 worksheets (see email below). I see us needing several things to figure out the PPBE inputs:

1. Sheet 1 – not part of the PPBE discussion and I think that is being addressed by Malcolm Wood, so I don't want to get involved with that, but it is something Sheila asked for.



2. Sheet 2 - LM will have to determine the man-hours for the maintenance of selected tools and the excess of all others for the colored areas on the MAF map. I assume that the "E" in the "E-T" column means that MSFOC should excess and the "T" means to do configuration control and maintenance from LM last need date to Constellation need date. I think this has already been done in the Quick Look reported on Dec. 15. If it is a "T" it would be helpful to identify what CxP project has a potential need for the hardware, most will be Ares V, but there are some US and maybe Orion tooling. SF01 will want to know that

3. Sheet 3 - LM will have to determine the man-hours for the maintenance of selected tools and the excess of all others for the white areas on the MAF map. Same assumptions as above on "E/T" column. This is currently being done by LM for ET PPBE 11 input. My understanding is that Sheila wants the excess job to be done by MSFOC so there is no duplication of effort between LM and MSFOC. Where to carry the budget needs clarification. Once again it would be nice to know the CxP project that has a potential need for the tooling.

4. On all three sheet the columns location will need to be added, but I understand that is coming after this week's festivities in NO. I would also like a spreadsheet column showing which of the 6 classes from small-simple to large-complex the tool fits in

3/6/2009

5. We need to build a set of ground rules and assumptions charts (for example my notes say that the Quick Look for the colored areas does not include Plant Equipment – is that turned over during the initial handover to MSFOC), what about material storage areas, etc?"

Kathy Jones spoke to Keith Savoy about the implications to property management for the transfer in place of hardware to be excessed. "Keith Savoy has made an interesting point that if hardware for excess is turned over to MSFOC, then it will have to be tagged as NASA property so that it can be excessed. It might make more sense for excess property in both the white and colored areas for LM to identify the property, MSFOC to physically disconnect and move the property and then LM to work the excess paperwork with DCMA. This would avoid the extra cost to NASA of transferring ownership of hardware to NASA before excessing."

It was requested by John Brunson that Roy work with ET to develop options for handling the disposition of the ET assets for Sheila to choose from. Sheila mentioned that Gerst would like to see for options on dispositioning the ET assets that is beneficial to NASA as a whole.



JSC Risk : 1051 Detail Report

Open Date: 6/22/2004

Status as of: 3/10/2009

ECD: 6/30/2008

Title: WSTF Environmental Risks			Status: Open	Escalation: TCR	Handling Strategy: Mitigate	Timeframe: Near		
Risk Statement: Given the new requirements in the NMED draft permit; there is a possibility that WSTF Operations would be significantly impacted.								
Context: Current draft permit proposes significant changes to Evaporation Tank Unit operations, schedule of compliance for remediation efforts, haz waste characterization process, etc which would result in increased cost and the ability to comply with the permit.								
Risk Owner: rbunker	Phone Number: 575-524-5733	Owning Team: RA		Likelihood	Consequences Supportability: 2 Schedule: 2 Cost: 3 Safety: 1 Goals/Miss. Success: 2			
Flights Affected:		Orgs Affected: RA		3				
Mitigation Cost (\$M)			Total Mitigation Budget (\$M)				Cost of Inaction (\$M)	
High: 14.5	Most Likely: 7.2	Low: 4.1	Total Mit. Budget: 0				Most Likely: 0	
Cost Breakdown: The cost impact of the new permit.								
Closure\Acceptance Criteria: Approved operating permit from NMED that is acceptable to WSTF.								
Closure\Acceptance Rationale:								
<p>Current Status:12/9/2008 WSTF received the draft permit from NMED and has reviewed and documented responses to their updates. WSTF also discussed various issues such as treatment standards with HQ environmental personnel and the assigned JSC lawyers. Based on these discussions, some changes to the draft permit are being recommended to NMED. WSTF's complete response will be sent to NMED by 12/12/2008. -----</p> <p>10/14/2008 Permit negotiations were conducted with NMED Sept 30, 2008 - Oct 2, 2008. All of NASA's comments to the draft permit and NMED corresponding responses were discussed. NMED is in the process of updating the draft permit and anticipates sending the draft to WSTF by the end of this week (Oct 17) or next week (Oct 24). WSTF will then have the chance to make any additional comments. Overall, NMED appears to have lightened the groundwater sampling requirements at WSTF which could be a cost savings of \$100-200K/year. The final savings won't be known until NMED approves WSTF groundwater monitoring plan, which will be submitted after the permit is issued. NMED did not back away from several other requirements which will be a cost to WSTF such as the requirement to sample groundwater in off-site wells or the requirement to either install angled monitoring wells under the Evaporation Tank Unit or to close the unit. -----</p> <p>9/4/2008 September 4, 2008: Negotiations have now been scheduled to start on September 30, 2008. This first negotiation session will be a three day meeting. NMED stated that they</p>								



JSC Risk : 1051 Detail Report

Open Date: 6/22/2004

Status as of: 3/10/2009

ECD: 6/30/2008

anticipated each organization would leave with actions or questions that needed to be resolved and then another session of meetings would be established. -----

7/29/2008

July 29, 2008

WSTF was notified that the NMED project leader was leaving for another job. It is anticipated that this will result in further delays of the negotiations. -----

June 27, 2008

NMED slipped negotiations and stated their ultimate goal is to issue the permit by the end of the 2008 calendar year. Negotiations will occur sometime before then but the NMED did not specify a time.

3/7/2008

March 7, 2008

NMED slipped negotiations until later this spring due to their current work schedule. WSTF is allowed to continue operating to the previously approved permit. WSTF is prepared for negotiations whenever they occur. -----

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February 21, 2008 NMED slipped negotiations into the end of February 2008 due to their current work schedule.

November 19, 2007

JSC Legal and WSTF continue negotiation preparations. NMED originally stated that they expect negotiations to begin in August, but have since stated the negotiations would start in November. 18 white papers have been completed in regard to permit concerns to aid the negotiation process. Additionally, HQ Environmental Consultants will work with WSTF and JSC Legal to support the negotiation process.



JSC Risk : 1051 Detail Report

Open Date: 6/22/2004

Status as of: 3/10/2009

ECD: 6/30/2008

Totals (\$M)	14.5	7.2	4.1	0	0	0	0
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JSC Risk : 1051 Detail Report

Open Date: 6/22/2004

Status as of: 3/10/2009

ECD: 6/30/2008

Mitigation Summary

Mitigation Plan: 12/09/2008: WSTF's responses to NMED's updated draft permit (based on the negotiations) will be sent to NMED no later than 12/12/2008. Oct 14, 2008: WSTF obtained several actions during the negotiation meetings and is currently working those actions. Several of these actions were providing NMED with information in a letter as well as updating our Part A of the draft permit. These actions have been assigned to individuals to accomplish. For the areas that NMED would not back away from the requirement, WSTF is in the processes of obtaining additional data that will be used to support future workplans. For example: for the offsite sampling requirement, WSTF is collecting data on the number of wells, the location, ownership, etc, to aid in determining which wells should be proposed for sampling.

September 4, 2008: Negotiations have now been scheduled to start on September 30, 2008. This first negotiation session will be a three day meeting. NMED stated that they anticipated each organization would leave with actions or questions that needed to be resolved and then another session of meetings would be established.

NMED has slipped the negotiations out to the end of January due to their current workload. Note: the assigned risk assessment numbers are based on not being able to negotiate an acceptable permit. Thus, the cost consequence of not successfully negotiating an acceptable permit could increase WSTF operating costs between \$1M and \$10M per year, so C was assigned a 3. The likelihood of not being able to negotiate an acceptable permit was given a 2 (L) due to NMED appearing to be more open to discussions (based on recent conversations). Additional work for WSTF and JSC Legal will be required to have a successful negotiation, thus supportability was given a 2. The time period for negotiations has continually been slipped by NMED. However, WSTF is allowed to continue to operate under the current permit, so schedule was rated as a 1 since the negotiation schedule slip is minor to the overall WSTF operations.

Fallback Plan: WSTF has maintained the ability to request a hearing if negotiations are unsuccessful.

Task No.	Task Description	MO	Individual	ECD	ACD	Resulting L x C		Success Criteria
						Likelihood	Consequences	
1	Prepare white papers on potential major issues to aid the negotiation process.	RA	Radel Bunker-Farrah	08/15/2007	09/30/2007	3	Supportability: 2 Schedule: 2 Cost: 3 Safety: 1 Goals/Miss. Success: 2	
2	Meet with NMED to begin negotiation process	RA	Radel Bunker-Farrah	09/30/2008	09/30/2008	1	Supportability: 2 Schedule: 1 Cost: 3 Safety: 1 Goals/Miss. Success: 1	Negotiate acceptable permit parameters



JSC Risk : 1057 Detail Report

Open Date: 6/22/2004

Status as of: 3/10/2009

ECD: 6/30/2008

Title: Ensure proper workforce skills and competencies for current and future needs	Status: Open	Escalation: TDR	Handling Strategy: Watch	Timeframe: Near
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Risk Statement: Given the fact that a highly skilled workforce must be maintained to fly out the shuttle program safely, and related but slightly different skills must be developed and grown to support the Constellation program; there is a possibility that needed shuttle skills could be lost prior to the Program's end or required Constellation skills could be scarce or not available. Workforce skills must be identified and monitored during this critical period.

Context: TBD

Risk Owner: dsickore	Phone Number: 281-483-4724	Owning Team: AH	Likelihood	X	Consequences
Flights Affected:		Orgs Affected: AH, JSC	2		Supportability: 3
					Schedule: 2
					Cost: 2
					Safety: 3
					Goals/Miss. Success:

Mitigation Cost (\$M)			Total Mitigation Budget (\$M)		Cost of Inaction (\$M)	
High: 0	Most Likely: 0	Low: 0	Total Mit. Budget: 0		Most Likely: 0	

Cost Breakdown:

Closure\Acceptance Criteria: TBD

Closure\Acceptance Rationale:

Current Status:4/15/2008
 Updated CMS and WIMS and produced Snapshot 1 by March 28, 2008. Data indicated that any/all skill imbalances were very small, and in the 12-15 FTE range. The one skill category which rose above the others was a demand in 2011 for Systems Engineers. This demand will be met by personnel from other Programs and internal development programs, both at JSC and at the Agency. -----
 6/28/2007 - In preparation for the JSC-IRMA 6.4 upgrade, Record type changed from Watch Item to Risk. Handling Strategy of Watch.
 3/26/2007 - Updated Center's competency needs though 2012 in the Agency Workforce Integrated Management System (WIMS).
 1/04/2007 - Analyzing results of Agency CMS and WIMS data collection (completed November 2006). Examining data for Johnson Space Center overall, by directorate, and by program, focusing on competency gaps and changes over time.
 11/16/2006 - Aggressively hired into the program offices and organizations that serve as pools for other orgs (Engineering and MOD), entered FY07 aggressively spending FTE with plans to rebalance through attrition. Collected employee competencies for all employees in CMS system, populated projected future competency needs in WIMS. Analysis of data is ongoing.
 5/22/06 - Revised hiring authority to organizations in line with HQ guidance on overall FY06 and FY07 FTE. HR is working with the organizations to identify needs for recent graduates versus experienced hires.
 2/10/06 - Assigned ceilings to organizations in line with HQ guidance on overall FTE. Workforce Planning and Systems office is working to understand the long term impacts of staffing



JSC Risk : 1057 Detail Report

Open Date: 6/22/2004

Status as of: 3/10/2009

ECD: 6/30/2008

levels on skill mix and future needs.

12/11/05 - Working with centers with unfunded capacity to conduct job fairs and fill 50 inter-center transfers to help meet our staffing needs and reduce their unfunded capacity.

10/11/05 - Working with the organizations to set organizational ceilings to meet headquarter's direction to stay under 3270. We are managing the challenge by working with the organizations to focus on critical needs. We are also working with the orgs to update current and future competency needs by program in the Workforce Integrated Management System (WIMS) to facilitate agency level planning and ensure continued authority to use enhanced flexibilities for JSC's critical skill gaps.

8/10/05 - Working with the orgs to extend job offers to graduating coops two months earlier than last year to improve our chances of getting our top candidates. Creating plan to make best use of new hiring flexibilities provided to the centers. Working with the orgs to update competency information in the Competency Management System (CMS) to facilitate agency level planning and gain approval for use of enhanced flexibilities for JSC's critical skill gaps.

7/15/05 - Working with each org to put hiring plan in place for remainder of year and beginning of next Fiscal Year. We have begun to staff the CEV project office and are partnering with Chief Engineer's office to explore long term needs and plans to meet those needs.

6/27/2005 - Revised mitigation plan to emphasize partnerships between the organizations, programs, and the center to better understand and meet current and future workforce needs.

5/23/05 - Based on preliminary budget expectations for FY06, we are making plans to increase our hiring plan by 100 engineers. JSC will continue recruiting from other centers while also pursuing external candidates where appropriate.

3/7/05 - Per Headquarters' guidelines, JSC participated in all 4 Job Fairs at other centers, recruiting for targeted positions and competencies; we are currently following up with candidates.

1/28/05 - Supporting agency transformation activities using available tools (WIMS and Competency Management System-CMS). The tools were used to create an initial list of competencies gaps (demand exceeds current workforce supply). The list was reviewed and revised by the competency team and will be integrated with other centers to help target recruiting across the agency.

11/19/04---Draft mitigation plan complete.

10/30/04 Completed implementation of WIMS. We will semi-annually to annually use WIMS to collect expected future competency needs by project from the JSC organizations to support HQ needs.

9/30/04 Implementing Workforce Integrated Management System (WIMS), which will aid in the tracking of current competencies by project and prediction of future needs.

8/30/04---No significant changes. Mitigation plans are still in work and will be updated shortly.



JSC Risk : 1057 Detail Report

Open Date: 6/22/2004

Status as of: 3/10/2009

ECD: 6/30/2008

Cost Summary

FY	Hi Mit. (\$M)	Most Like. Mit. (\$M)	Lo Mit. (\$M)	Cost in Scope (\$M)	Hi Recovery (\$M)	Most Like. Recovery (\$M)	Lo Recovery (\$M)	Comments
FY02	0	0	0	0	0	0	0	
FY03	0	0	0	0	0	0	0	
FY04	0	0	0	0	0	0	0	
FY05	0	0	0	0	0	0	0	
FY06	0	0	0	0	0	0	0	
FY07	0	0	0	0	0	0	0	
FY08	0	0	0	0	0	0	0	
FY09	0	0	0	0	0	0	0	
FY10	0	0	0	0	0	0	0	
FY11	0	0	0	0	0	0	0	
FY12	0	0	0	0	0	0	0	
FY13	0	0	0	0	0	0	0	
FY14	0	0	0	0	0	0	0	
FY15	0	0	0	0	0	0	0	
FY16	0	0	0	0	0	0	0	
FY17	0	0	0	0	0	0	0	
FY18	0	0	0	0	0	0	0	
FY19	0	0	0	0	0	0	0	
FY20	0	0	0	0	0	0	0	

Totals (\$M)	0	0	0	0	0	0	0	
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JSC Risk : 1057 Detail Report

Open Date: 6/22/2004

Status as of: 3/10/2009

ECD: 6/30/2008

Mitigation Summary

Mitigation Plan: Collect competency information on JSC employees to assess skills gaps/overlaps. Create more collaborative workforce planning partnership with the organizations and programs to better understand and meet current and future needs.

Fallback Plan: Fill immediate staffing needs with term positions and transfers from other centers.

Task No.	Task Description	MO	Individual	ECD	ACD	Resulting L x C		Success Criteria
						Likelihood	Consequences	
1	Work with DLO's to validate expected surpluses and gaps	JSC	Karl Schuler	03/30/2005	01/21/2005	0	Supportability: 0 Schedule: 0 Cost: 0 Safety: 0 Goals/Miss. Success: 0	90% of skills identified match program needs and plans in place to eliminate gaps.
2	Complete HQ activity to identify near term competency gaps and surpluses	JSC	Karl Schuler	01/24/2005	01/21/2005	0	Supportability: 0 Schedule: 0 Cost: 0 Safety: 0 Goals/Miss. Success: 0	All known gaps for the next 6 to 12 months are identified and prioritized
3	Human Resource Representatives will meet with the directorates and create initial hiring plan through the end of FY06	JSC	Bradford Mudgett	10/02/2005	10/06/2005	0	Supportability: 0 Schedule: 0 Cost: 0 Safety: 0 Goals/Miss. Success: 0	Hiring plan based on current POP numbers is created and resources are put into place to implement plan.
4	Identify/review JSC expected competency needs for FY07 thru FY10 based on POP guidance	JSC	Bradford Mudgett	10/30/2005	10/28/2005	0	Supportability: 0 Schedule: 0 Cost: 0 Safety: 0 Goals/Miss. Success: 0	90% of competencies necessary for JSC program support from FY07 thru FY10 are available and plans are in place to close any gaps.
5	Work with organizations and Chief Engineer's	JSC	Bradford Mudgett	12/31/2005	11/30/2005	0	Supportability: 0 Schedule: 0	Centerwide methodology followed to set priorities.



JSC Risk : 1057 Detail Report

Open Date: 6/22/2004

Status as of: 3/10/2009

ECD: 6/30/2008

	Office to prioritize competency needs. These will feed into the agency workforce plan.							Cost: 0 Safety: 0 Goals/Miss. Success: 0	
7	Work with major programs at JSC to identify their current workforce needs.	JSC	Bradford Mudgett	12/31/2006	09/30/2006	0	0	Supportability: 0 Schedule: 0 Cost: 0 Safety: 0 Goals/Miss. Success: 0	All major programs participated resulting in a common understanding of program and center short term needs
6	Work with directorates to identify their current workforce needs.	JSC	Bradford Mudgett	12/31/2006	09/30/2006	0	0	Supportability: 0 Schedule: 0 Cost: 0 Safety: 0 Goals/Miss. Success: 0	100% of JSC directorates participated resulting in a common understanding of directorate and center short term needs
8	Collect employee competencies and future competency needs	JSC	Bradford Mudgett	10/31/2006	10/30/2006	0	0	Supportability: 0 Schedule: 0 Cost: 0 Safety: 0 Goals/Miss. Success: 0	95% of employees completing their competency profile in CMS
9	Integrate directorate and program information to create integrated workforce plan.	JSC	Bradford Mudgett	03/31/2007	10/31/2006	0	0	Supportability: 0 Schedule: 0 Cost: 0 Safety: 0 Goals/Miss. Success: 0	An agreed to staffing plan is baselined for the Fiscal Year and is updated as needed for major funding or program changes.
10	Monitor Current competencies and future needs	JSC	Bradford Mudgett	09/30/2007	10/01/2007	0	0	Supportability: 0 Schedule: 0 Cost: 0 Safety: 0 Goals/Miss. Success: 0	gaps identified and mitigations in place to manage risks.
11	Conduct Workforce snapshots; update CMS and WIMS systems; examine results for	AH	Donn Sickorez	09/30/2008	09/30/2008	1	1	Supportability: 0 Schedule: 0 Cost: 0 Safety: 0	Skill surpluses/shortages are small (15-20 FTE) and/or manageable within existing programs.



JSC Risk : 1057 Detail Report

Open Date: 6/22/2004

Status as of: 3/10/2009

ECD: 6/30/2008

	workforce imbalances						Goals/Miss. Success: 1	
12	Complete Shuttle Mapping Exercise	AH	Donn Sickorez	12/30/2008	12/26/2008	2	Supportability: 0 Schedule: 0 Cost: 0 Safety: 0 Goals/Miss. Success: 1	Gaps in workforce skills identified
13	Conduct Internal Workforce Review, establish flyout and post-shuttle workforce requirements	AH	Donn Sickorez	03/28/2009		2	Supportability: 0 Schedule: 0 Cost: 0 Safety: 0 Goals/Miss. Success: 2	
14	Conduct Snapshot 1 (high-level workforce overview), based on current WIMS numbers and revisions to N2	AH	Donn Sickorez	06/26/2009		1	Supportability: 0 Schedule: 0 Cost: 0 Safety: 0 Goals/Miss. Success: 1	
15	Conduct Workforce Review (Snapshot 3) in concert with the CFO and PPBE11	AH	Donn Sickorez	09/26/2009		1	Supportability: 0 Schedule: 0 Cost: 0 Safety: 0 Goals/Miss. Success: 1	



JSC Risk : 1445 Detail Report

Open Date: 6/22/2004

Status as of: 3/10/2009

ECD: 6/30/2008

Title: Insufficient CxP Program funding for Engineering test beds and laboratories	Status: Open	Escalation: TCR	Handling Strategy: Mitigate	Timeframe: Near
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Risk Statement: Given the lack of funding from the Constellation Program to maintain Engineering's test beds and laboratories,; there is a possibility that Engineering will not be able to provide design, development, test , and evaluation (DDT&E) services to the Constellation Program.

Context: Inability to provide development, test and analysis to CxP. In particular, Arc Jet and the Electronic Systems Test Lab (ESTL) have significant funding gaps beginning in FY09.

Risk Owner: bplante	Phone Number: 281-483-9206	Owning Team: EA	Likelihood	X	Consequences
Flights Affected:	Orgs Affected: EA	4	Supportability: 4		
			Schedule: 0		
			Cost: 3		
			Safety: 0		
			Goals/Miss. Success: 4		

Mitigation Cost (\$M)			Total Mitigation Budget (\$M)		Cost of Inaction (\$M)	
High: 0	Most Likely: 54.49	Low: 0	Total Mit. Budget: 0		Most Likely: 0	

Cost Breakdown:

Closure\Acceptance Criteria: This item is not closed

Closure\Acceptance Rationale:

Current Status:1/15/2009
 FY09 funding shortfalls were secured from SSP and ISS for both ESTL and Arcjet. Beginning in FY10, funding for fixed expenses and production has not been identified and may result in loss of ability to perform DDT&E services to meet programmatic requirements. -

 10/23/2008
 FY09 funding secured for Arcjet from SSP. Negotiations nearing completion for FY09 ESTL fixed cost funding. Outyear identification of facility utilization continues to be worked at the agency level and results will be rolled into FY10 PPBE activities.

 6/9/2008
 Conducting negotiations with CxP, SCAP and TCWG for funding as well as cost model discussions. -----



JSC Risk : 1445 Detail Report

Open Date: 6/22/2004

Status as of: 3/10/2009

ECD: 6/30/2008

Totals (\$M)	0	54.49	0	0	0	0	0
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JSC Risk : 1445 Detail Report

Open Date: 6/22/2004

Status as of: 3/10/2009

ECD: 6/30/2008

Mitigation Summary

Mitigation Plan: Continue negotiations with CxP as well as Agency level discussions to obtain funding to sustain these capabilities.

Fallback Plan:

Task No.	Task Description	MO	Individual	ECD	ACD	Resulting L x C		Success Criteria
						Likelihood	Consequences	
1	Negotiate FY09 funding with CxP and SCAP for Arc Jet	EA	Beth Fischer	09/30/2008	09/30/2008	4	Supportability: 4 Schedule: 0 Cost: 3 Safety: 0 Goals/Miss. Success: 4	
2	Negotiate FY09 funding with CxP for ESTL fixed costs	EA	Beth Fischer	10/30/2008	12/10/2008	4	Supportability: 4 Schedule: 0 Cost: 3 Safety: 0 Goals/Miss. Success: 4	
3	Negotiate outyear funding with CxP for EA facilities	EA	Beth Fischer	06/30/2009		2	Supportability: 4 Schedule: 0 Cost: 2 Safety: 0 Goals/Miss. Success: 4	Facility utilization plan established and commensurate funding negotiated.



JSC Risk : 1446 Detail Report

Open Date: 6/22/2004

Status as of: 3/10/2009

ECD: 6/30/2008

Title: Potential loss of capability for hypergolic propulsion testing	Status: Open	Escalation: TCR	Handling Strategy: Mitigate	Timeframe: Near
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Risk Statement: Given the gap in full-time utilization of hypergolic testing and the desire to cut spending where possible; there is a possibility that the value of maintaining and therefore funding on-going testing at WSTF may not be communicated effectively, resulting in loss of certification and the Agency's ability to perform hypergolic engine testing.

Context: WSTF has a variety of environmental permits some of which require active testing to maintain. Most critically, grandfathered permits for hypergolic engine testing will be lost permanently if active testing is not performed. Eliminating the unique hypergolic propulsion system testing capability at WSTF leaves NASA totally reliant on a single vendor, or a DoD facility, to conduct critical-path propulsion system certification and sustaining engineering tests for current and future NASA programs and projects. Such a decision contradicts NASA I&A Study recommendation #11: "NASA should retain the capability to test hypergolic propellant engines and propulsion systems independent of the vendors."

Risk Owner: rcort	Phone Number: 575-524-5521	Owning Team: RA	Likelihood	X	Consequences	
Flights Affected:	Orgs Affected: RA	Likelihood	3		Supportability: 4	
					Schedule: 0	
					Cost: 4	
					Safety: 0	
Goals/Miss. Success: 5						

Mitigation Cost (\$M)			Total Mitigation Budget (\$M)		Cost of Inaction (\$M)	
High: 13	Most Likely: 13	Low: 10	Total Mit. Budget: 0		Most Likely: 0	

Cost Breakdown: Distribution of the \$10 - \$13M Gap funding is still under investigation.

Closure\Acceptance Criteria: Publish decision about funding WSTF during the Gap.

Closure\Acceptance Rationale:

Current Status:7/11/2008

The Office of Chief Engineer's assessment estimates the cost to maintain the capability at WSTF is \$10-\$13M. This represents a Cost Consequence of 4. Additional planning is in-work to address the Gap. -----

6/20/2008

This risk will be presented at the JMC June 20, 2008. -----



JSC Risk : 1446 Detail Report

Open Date: 6/22/2004

Status as of: 3/10/2009

ECD: 6/30/2008

Cost Summary

FY	Hi Mit. (\$M)	Most Like. Mit. (\$M)	Lo Mit. (\$M)	Cost in Scope (\$M)	Hi Recovery (\$M)	Most Like. Recovery (\$M)	Lo Recovery (\$M)	Comments
FY02	0	0	0	0	0	0	0	
FY03	0	0	0	0	0	0	0	
FY04	0	0	0	0	0	0	0	
FY05	0	0	0	0	0	0	0	
FY06	0	0	0	0	0	0	0	
FY07	0	0	0	0	0	0	0	
FY08	13	13	10	0	0	0	0	
FY09	0	0	0	0	0	0	0	
FY10	0	0	0	0	0	0	0	
FY11	0	0	0	0	0	0	0	
FY12	0	0	0	0	0	0	0	
FY13	0	0	0	0	0	0	0	
FY14	0	0	0	0	0	0	0	
FY15	0	0	0	0	0	0	0	
FY16	0	0	0	0	0	0	0	
FY17	0	0	0	0	0	0	0	
FY18	0	0	0	0	0	0	0	
FY19	0	0	0	0	0	0	0	
FY20	0	0	0	0	0	0	0	

Totals (\$M)	13	13	10	0	0	0	0	
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JSC Risk : 1446 Detail Report

Open Date: 6/22/2004

Status as of: 3/10/2009

ECD: 6/30/2008

Mitigation Summary

Mitigation Plan: Secure adequate funding to retain certifications and preserve capability through seeking reimbursable work and presenting compelling argument to fund the gap.

Fallback Plan:

Task No.	Task Description	MO	Individual	ECD	ACD	Resulting L x C		Success Criteria
						Likelihood	Consequences	
1	Identify the magnitude of the Gap	RA	Robert Cort	07/10/2008	07/11/2008	2	Supportability: 4 Schedule: 0 Cost: 0 Safety: 0 Goals/Miss. Success: 5	90% confidence of the amount of funding required to sustain the facility operations budget, after discounting the contribution of reimbursable work.