

# ORDER FOR SUPPLIES OR SERVICES

PAGE 1 OF 4 PAGES 4

**IMPORTANT: Mark all packages and papers with contract and/or order numbers.**

1. DATE OF ORDER <b>TBD</b>		2. CONTRACT NO. (If any) <b>NNJ09 C</b>		6. SHIP TO:	
3. ORDER NO. <b>Task Order #1</b>		4. REQUISITION/REFERENCE NO. <b>N/A</b>		a. NAME OF CONSIGNEE <b>Transportation Officer, Building 421, NASA-JSC</b>	
5. ISSUING OFFICE (Address correspondence to) <b>BG/Andrea R. Falls, Contracting Officer</b>				b. STREET ADDRESS <b>2101 NASA Parkway</b>	
7. TO: <b>TBD</b>				c. CITY <b>Houston</b>	e. ZIP CODE <b>TX 77054</b>
a. NAME OF CONTRACTOR <b>TBD</b>		f. SHIP VIA			
b. COMPANY NAME <b>TBD</b>		8. TYPE OF ORDER			
c. STREET ADDRESS <b>TBD</b>		<input type="checkbox"/> a. PURCHASE REFERENCE YOUR: _____ Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.		<input checked="" type="checkbox"/> b. DELIVERY -- Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
d. CITY <b>TBD</b>	e. STATE <b>TBD</b>	f. ZIP CODE <b>TBD</b>			
9. ACCOUNTING AND APPROPRIATION DATA <b>N/A</b>			10. REQUISITIONING OFFICE <b>ISS Program Office, OH</b>		
11. BUSINESS CLASSIFICATION (Check appropriate box(es))				12. F.O.B. POINT <b>DESTINATION</b>	
<input type="checkbox"/> a. SMALL		<input type="checkbox"/> b. OTHER THAN SMALL		<input type="checkbox"/> c. DISADVANTAGED	
<input type="checkbox"/> d. WOMEN-OWNED		<input type="checkbox"/> e. HUBZone		<input type="checkbox"/> g. SERVICE-DISABLED VETERAN-OWNED	
<input type="checkbox"/> f. EMERGING SMALL BUSINESS					
13. PLACE OF		14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)	
a. INSPECTION <b>DESTINATION</b>	b. ACCEPTANCE <b>DESTINATION</b>			<b>TBD</b>	
				16. DISCOUNT TERMS <b>TBD</b>	

### 17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	<b>Task Order #1 – MANAGEMENT INTEGRATION AND CONTROL – Business Management</b>					
	Estimated Labor	XXX	hrs.		\$XXXXX.XX	
	Travel				\$XXX.XX	
	Materials				\$XXXXX.XX	

SEE BILLING  INSTRUCTIONS  ON  REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOT. (Cont. pages)
	21. MAIL INVOICE TO:						
	a. NAME <b>Same as Block 5</b>						17(i) GRAND TOTAL
b. STREET ADDRESS (or P.O. Box)							
c. CITY			d. STATE	e. ZIP CODE		\$XXXXXXXX.XX	

22. UNITED STATES OF AMERICA BY (Signature)	23. NAME (Typed)
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TITLE: CONTRACTING/ORDERING OFFICER

**I. TITLE OF EFFORT:** Management Integration and Control Requirements – Business Management

**II. TASK DESCRIPTION:**

The Contractor shall provide Program management and administration, business management, and engineering to accomplish the objectives and outcomes described within this delivery order. The Contractor shall propose to the tasks as described in the PI&C Contract Section C, Statement of Work, for the SOW items listed below. Specific workload indicators, quantities, and schedules are provided to scope the magnitude of the required tasks.

**III. STATEMENT OF WORK REFERENCE:** 1.0 Management Integration and Control, 1.2 Business Management

**IV. REQUIREMENTS / DELIVERABLES / SCHEDULE:**

SOW	Performance Requirement	Workload Indicators	Quantity	Schedule	DRDs
1.2.5	Program Scheduling				
1.2.5.1	Schedule Management				
1.2.5.1.a	Develop PI&C contract schedules and provide month-end schedule and analysis for inclusion into the Integrated Program Schedule	- Updates to Task Orders, contract modifications - Monthly reviews and Updates	1 1	Yearly Monthly	PIC-PC-06
1.2.5.1.b	Prepare and report ISS Program schedule metrics		1	Monthly	PIC-PC-06
1.2.5.1.c	Develop and provide Integrated ISS Program budget-loaded, summary and intermediate level detail schedules and logic links to lower level detail schedules.		As required	Monthly	N/A
1.2.5.1.1	Integrated Program Schedule Management				
1.2.5.1.1.a	Develop ISS Program schedules as required	ISS Program schedules and charts for the IPSP, IMPR, EWS, ISS Organizational projects (e.g. ELC/HAB HW), ISS CRs with development tasks.	As required	As required	PIC-PC-06
1.2.5.1.1.b	Maintain and update ISS critical HW/SW deliveries, activities & tasks integrated with ISS Program flight schedules.	Integrated, summary level and intermediate level detail schedules for program	One top level One intermediate level	Weekly	PIC-PC-06

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
		management.			
1.2.5.1.1.c	Maintain and update the Integrated Program Schedule and the Key Program Performance Indicators (KPPIs) for the ISS Program Management Information System (MIS) and PP&C website.	Updates to Program Management Information on PP&C Web site and IPS Schedules to ISS Program MIS.	One set of updates	Monthly, weekly, bi-weekly (as agreed with program participants)	PIC-PC-06
1.2.5.1.2	Provide support to the Integrated Program Schedule Panel (IPSP).	Meeting planning, issue identification, schedule status analyses, special agenda topics	Once	Weekly	N/A
1.2.5.1.3	Program Level Schedule Data Management				
1.2.5.1.3	Provide ISS Program schedules updates and status reports after data acquisition from ISS Program Participants	IPSP reviews schedule updates and special topic charts including charts for IMPR/EWS emphasis.  Projects, incl. ISS CRs are statused / reviewed in PP&C/ACES.	IPS schedule and charts developed for IMPR/EWS emphasis.  Update/Status schedules	Every other week for IMPR and EWS.  As required	PIC-PC-06
1.2.5.2	Scheduling System Support				
1.2.5.2.a	Operate a scheduling system identified in Section C, Addendum 4, Table 1 in support of the ISS Program	Operation and maintenance of the data in the scheduling system	As required	As required	N/A
1.2.5.2.b	Review other contractor schedules to ensure compliance with DRD PIC-PC-06. The contractor shall work through the Integrated Program Schedules Panel (IPSP) to identify and resolve schedule process and data issues	Review other contractor schedules by participating in audits of Program Participants schedules.	As required	Monthly	N/A
1.2.5.3	Team Schedule Support	Provide the ISS Program CAM's top level and/or lower level schedules with analyses (e.g. IP Elements, and ISS development projects).	As required	As required	PIC-PC-06

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
1.2.5.4	ISS Program Planning Calendar/Certification of Flight Readiness (CoFR) Review Meeting Matrix				
1.2.5.4.a	Maintain ISS Program Planning Calendar and post on ISS Website	Update and upload ISS Program Planning Calendar on ISS website and distribute hard copies	Twice	Weekly	PIC-PC-06
1.2.5.4.b	Provide maintenance of the CoFR Review Meeting Matrix	CoFR Review Meeting Matrix updates	Once	Weekly	PIC-PC-06
1.2.5.5 & 1.2.5.6	Schedule Risk Assessment & Special Schedule Trade Studies				
	Perform independent schedule assessments of HW and SW development, Integrated Assessments including schedule risk/cost analysis, critical path analyses and special studies.	Independent integrated schedule assessments and special studies	As identified	As required	N/A
1.2.5.7	Propose Alternate Report Formats				
1.2.5.7	Propose Alternate Report Formats	Develop and propose alternate report formats for NASA review and concurrence	As identified	As required	N/A

**V. PERIOD OF PERFORMANCE:** October 1, 2009- September 30, 2010

**VI. TRAVEL REQUIREMENTS:**

**VII. ESTIMATED PRICE BREAKOUT:**

# ORDER FOR SUPPLIES OR SERVICES

PAGE 1 OF 15 PAGES

**IMPORTANT: Mark all packages and papers with contract and/or order numbers.**

1. DATE OF ORDER <b>TBD</b>		2. CONTRACT NO. (If any) <b>NNJ09 C</b>		6. SHIP TO:		
3. ORDER NO. <b>Task Order #2</b>		4. REQUISITION/REFERENCE NO. <b>N/A</b>		a. NAME OF CONSIGNEE <b>Transportation Officer, Building 421, NASA-JSC</b>		
5. ISSUING OFFICE (Address correspondence to) <b>BG/Andrea R. Falls, Contracting Officer</b>				b. STREET ADDRESS <b>2101 NASA Parkway</b>		
7. TO: <b>TBD</b>				c. CITY <b>Houston</b>	d. STATE <b>TX</b>	e. ZIP CODE <b>77054</b>
a. NAME OF CONTRACTOR <b>TBD</b>				f. SHIP VIA		
b. COMPANY NAME <b>TBD</b>				8. TYPE OF ORDER		
c. STREET ADDRESS <b>TBD</b>				<input type="checkbox"/> a. PURCHASE		<input checked="" type="checkbox"/> b. DELIVERY -- Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.
d. CITY <b>TBD</b>				REFERENCE YOUR: _____ Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.		
e. STATE <b>TBD</b>		f. ZIP CODE <b>TBD</b>				
9. ACCOUNTING AND APPROPRIATION DATA <b>N/A</b>				10. REQUISITIONING OFFICE <b>ISS Program Office, OH</b>		
11. BUSINESS CLASSIFICATION (Check appropriate box(es))						12. F.O.B. POINT <b>DESTINATION</b>
<input type="checkbox"/> a. SMALL		<input type="checkbox"/> b. OTHER THAN SMALL		<input type="checkbox"/> c. DISADVANTAGED		
<input type="checkbox"/> d. WOMEN-OWNED		<input type="checkbox"/> e. HUBZone		<input type="checkbox"/> f. EMERGING SMALL BUSINESS		
<input type="checkbox"/> g. SERVICE-DISABLED VETERAN-OWNED						
13. PLACE OF		14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)		16. DISCOUNT TERMS
a. INSPECTION <b>DESTINATION</b>		b. ACCEPTANCE <b>DESTINATION</b>		<b>TBD</b>		<b>TBD</b>

### 17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	<b>Task Order #2 – MANAGEMENT INTEGRATION AND CONTROL – Configuration Management (CM) and Data Management &amp; Integration (DMI)</b>					
	Estimated Labor	XXX	hrs.		\$XXXXX.XX	
	Travel				\$XXX.XX	
	Materials				\$XXXXX.XX	

SEE BILLING  INSTRUCTIONS  ON  REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOT. (Cont. pages)
	21. MAIL INVOICE TO:						
	a. NAME <b>Same as Block 5</b>						\$XXXXXXXX.XX
b. STREET ADDRESS (or P.O. Box)							
c. CITY			d. STATE	e. ZIP CODE			

22. UNITED STATES OF AMERICA BY (Signature) ▶

23. NAME (Typed)  
  
TITLE: CONTRACTING/ORDERING OFFICER

**I. TITLE OF EFFORT:** Management Integration and Control Requirements – Configuration Management (CM) and Data Management and Integration (DMI)

**II. TASK DESCRIPTION:**

The Contractor shall provide Program management and administration, business management, and engineering to accomplish the objectives and outcomes described within this delivery order. The Contractor shall propose to the tasks as described in the PI&C Contract Section C, Statement of Work, for the SOW items listed below. Specific workload indicators, quantities, and schedules are provided to scope the magnitude of the required tasks.

**III. STATEMENT OF WORK REFERENCE:** 1.0 Management Integration and Control, 1.3 Configuration Management (CM) / Data Integration (DM)

**IV. REQUIREMENTS / DELIVERABLES / SCHEDULE:**

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
1.3	CONFIGURATION MANAGEMENT (CM) / DATA INTEGRATION (DM)				
1.3.1	Configuration Management				
1.3.1.1	Establish and maintain ISS Program CM policies, procedures and requirements.	Establish and maintain ISS Program CM policies, procedures, and requirements.	Daily	Daily	N/A
1.3.1.1	Provide Book Coordination functions.	Update SSP 41170, SSP 50010, SSP 50123, and SSP 50172, SSP 50744, SSP 50421, SSP 50706	Update as required	Yearly	
1.3.1.1	Maintain an infrastructure for continued development and baselining hardware, software, and other products under ISS Program control.	Create additional CM processes	3 processes	Yearly	N/A
1.3.1.1.1	Develop and implement a CM Plan	Maintain and update a CM Plan	Update as required.	See DRD	PIC-CM-01
1.3.1.1.2	Support in Technical Interchange Meetings (TIMs) and ISS Program Milestone Reviews by providing inputs regarding CM	Participation in TIMs and ISS Program Milestone Reviews	5 to 10 meetings	Yearly	N/A
1.3.1.1.2.1	The contractor shall participate in the International Configuration Management Telecons (ICMTs)	Contractor shall provide the following: (a) Schedule conference rooms; (b) Notify attendees; (c) Request	Once	Monthly	N/A

SOW	Performance Requirement	Workload Indicators	Quantity	Schedule	DRDs
		interpretation/translation services; (d) Schedule and set-up equipment; (e) Prepare agendas; (f) Prepare meeting material; (g) Prepare minutes; and (h) Track action items.			
1.3.1.1.2.2	The contractor shall participate in the annual ICMT Face-to-Face meetings with the IP/Ps.	Contractor shall provide the following: (a) Schedule conference rooms; (b) Notify attendees; (c) Request interpretation/translation services; (d) Schedule and set-up equipment; (e) Prepare agendas; (f) Prepare meeting material; (g) Prepare minutes; and (h) Track action items.	Once	Yearly	N/A
1.3.1.1.2.3	ISS Program Milestone Reviews	Contractor shall provide the following: (a) Schedule conference rooms; (b) Notify attendees; (c) Request interpretation/translation services; (d) Schedule and set-up equipment; (e) Prepare agendas; (f) Prepare meeting material; (g) Prepare minutes; and (h) Track action items.	6 Reviews	Yearly	N/A
1.3.1.1.3	Maintain existing desk instructions and deliver in accordance with SSP 50123 and SSP 50172 for CM/DM processes	Maintain and deliver desk instructions. 1. Change Processing 2. Configuration	12-15	Yearly	N/A

SOW	Performance Requirement	Workload Indicators	Quantity	Schedule	DRDs
		Status Accounting 3. Audit and Verification 4. Engineering Release Unit 5. CM Receipt Desk 6. Meeting Support 7. Board Secretariats 8. Change Integrators 9. Document Quality Assurance 10. Directive Desk 11. Program Data Integration Team (PDIT) Help Desk 12. Other Programs' Change Request (CR) reviews.			
1.3.1.2	Configuration Status Accounting and Verification				
1.3.1.2.1	Participate in ISS Program hardware and software Functional Configuration Audits (FCA) and Physical Configuration Audits (PCA)	Participation in FCAs and PCAs for all 1st time build configuration items at approximately 90% complete. (a) Determine the acceptability of the panel review items; (b) Support the audit chairperson(s) in developing recommended solutions to actions/issues; (c) Prepare panel summary and minutes, and submit for inclusion in the audit minutes; (d) Review draft minutes of the audit and sign applicable certification sheets, as appropriate; (e) Ensure all necessary documentation is compiled and presented in an understandable manner to the customer;	6 audits	Yearly	N/A



SOW	Performance Requirement	Workload Indicators	Quantity	Schedule	DRDs
		(f) Coordinate panel activities and review/document document progress daily; (g) Determine if the use of sub-panels is necessary due to size/complexity of the CEI/CI and/or CSCI; and (h) Ensure audit action item/issue forms are available for auditors to document issues identified during the audit.			
1.3.1.2.2	Participate in ISS Acceptance Reviews and Program Readiness Reviews	Participate in ISS Acceptance Reviews and Flight Readiness Reviews: (a) Identify all open work for the CI and/or CSCI has been closed; (b) Verify that no unapproved activity has occurred to change the configuration since the PCA was performed; (c) Provide all preplanned, assigned, unplanned or deferred work associated with the item subject to the acceptance review to be presented in summary at the review; and (d) Identify any issues or concerns derived from work transfer or deferral and presented to the ISS Program Manager.	2 Acceptance Reviews and 13 Readiness Reviews	Yearly	N/A
1.3.1.2.3	The contractor shall provide technical coordination to the OCWG	Contractor shall provide the following to the OCWG: (a) Attend OCWG as a member and	1 meeting	Weekly	N/A

SOW	Performance Requirement	Workload Indicators	Quantity	Schedule	DRDs
		<p>facilitate the OCWG as required;</p> <p>(1) Provide technical assessment of all new, closed and current Configuration Discrepancy Reports (CDRs) according to MGT-OH-018, On-Orbit CDR Resolution Process,</p> <p>(2) Facilitate the meeting if NASA Chair is not available.</p> <p>(b) Organize the OCWG Meeting;</p> <p>(1) Support NASA chair to schedule OCWG meetings,</p> <p>(2) Establish agendas and schedule meetings based on CDR activity,</p> <p>(i) Send meeting notice/secure meeting room/set-up conference call-in.</p> <p>(3) Document and track action items;</p> <p>(4) Write and publish minutes for the OCWG,</p> <p>(i) Summarize the essence of discussions surrounding decisions and actions.</p> <p>(c) Maintain and track all CDR activity in the OCWG Master CDR List;</p> <p>(d) Review Master CDR List weekly;</p> <p>(1) To identify stalled CDRs or possible issues,</p> <p>(2) To ensure that the CM contractor(s) are providing a current</p>			

SOW	Performance Requirement	Workload Indicators	Quantity	Schedule	DRDs
		<p>status of on-orbit configuration discrepancies.</p> <p>(e) Establish and facilitate bi-weekly (or as required) contractor pre-coordination reviews to evaluate CDR activity;</p> <p>(f) Coordinate OCWG support for CDRs with high risk or safety impact to the ISS Program by establishing a special topic OCWG or adding it to the agenda of the appropriate Program forum (i.e. SPRT, SWG, VCB, etc);</p> <p>(g) Establish and maintain OCWG website includes current information regarding on-orbit configuration discrepancies;</p> <p>(h) Maintain the OCWG charter and the OCWG Work Instruction (MGT-OH-018, On-Orbit Configuration Discrepancy Resolution Process).</p>			
1.3.1.2.4	Audit and validate program status accounting systems data	Data audit and validation for COSMOS, EDMS, and SSAV.	1 update	Daily	N/A
1.3.1.2.5	Validate the ISS Program baseline including review and evaluation of changes to ensure proper baseline maintenance.	Verify product and product information is properly updated per Program approved changes.	50-70 Change Packages	Monthly	N/A
1.3.1.3	<b>Configuration Control</b>				
1.3.1.3.1	Ensure execution of the Change Process per SSP 41170, SSP 50123, and SSP 50706.	<p>Ensure execution of the Change Process</p> <p>(a) Ensure changes are thoroughly coordinated prior to submittal;</p> <p>(b) Reviewed and evaluated; and</p> <p>(c) Implemented by</p>	Daily	Daily	N/A

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
		an approved ISS Program Change Directive.			
1.3.1.3.1 (d)	Provide single point focal ISS Program International Partner/Participant communication.	Assist in tracking, status, and closure of International Partner/Participant changes. Assist in managing IP actions, telecons, and IP CM TIMs	Daily	Daily	N/A
1.3.1.3.1 (e)	Provide a thorough review of all Directive Packages to ensure quality packages prior to submittal for NASA CM signature per SSP 50123 and OH-WI-017.	Provide metrics on PI&C and all contracts to document rework scoring.	50- 70 Change Directive Packages	Monthly	N/A
1.3.1.3.2	Maintain CM blank forms/templates	Maintain all CM blank forms/templates	30-50 blank forms, 10 updates	Yearly	N/A
1.3.1.3.3	Provide CM Secretariats for all ISS Control Boards and Panels	CM Secretariats shall provide: (a) Participate as a board/panel member; (b) Provide CM direction to the board chair; (c) Coordinate with the board chair and CM meeting support personnel on all SSCNs processed through the board; (d) Track and report on all open SSCNs under the board responsibility; (e) Ensure that complete directive packages are available at the board for concurrence/approval; (f) Provide technical review and concurrence of the board minutes; and (g) Notify the Change Integrator in writing of the directive approval status following the board meeting.	1. 8 board meetings  2. 6 Multilateral board meetings  3. 4 Program Manager Reviews  4. 4 SSCBs	1. Weekly  2. Monthly  3. Quarterly  4. Yearly, as required (currently supported by OX)	N/A
1.3.1.3.4	Provide meeting logistics, administration, agendas,	Contractor shall provide the	1. 23 meetings	1. Weekly	N/A

SOW	Performance Requirement	Workload Indicators	Quantity	Schedule	DRDs
	action item management, minutes and archival for ISS Boards, Panels, and Program Reviews.	following: (a) Scheduling conference rooms; (b) Notifying attendees; (c) Requesting interpretation and translation services; (d) Requesting local transportation services for Foreign Nationals, when necessary; (e) Scheduling and set-up of equipment; and (f) Preparation of meeting materials. (g) Provide Quality Records Management for Flight Certifications per NPR 1441.1. (h) Provide Quality Records Management for ISS boards and panels. (i) Provide reports and metrics. (j) Provide administrative functions for decision documents.	2. 6 multilateral meetings  3. 2 bi/tri lateral Program meetings  4. 46 Decision Documents	2. Monthly  3. Quarterly  4. Yearly	
1.3.1.3.5	PP&C CoFR Panel Reviews and SORRs per SSP 50108 and SSP 50421.	For each flight, the contractor shall: (a) Provide charts identifying open work for each flight; (b) Provide status at lower boards/panels for each flight; (c) Capture and track CoFR actions and CoFR exceptions to closure for each flight; (d) Track open paper for each flight; and (e) Maintain the PP&C CoFR schedule.	15 flights	Yearly	N/A
1.3.1.3.6	Conduct a Change Screening Board (CSB) as described in	The contractor shall provide:	1 meeting	Weekly	N/A

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
	SSP 50123.	(a) Review all new/revised Change Requests submitted to the ISS Program System; (b) Confirm contractor unit responsible to lead processing of the change; (c) Verify that all CR information is complete; (d) Ensure that all affected NASA organizations and contractors are given opportunity to evaluate; (e) Verify evaluation schedules, assessing the urgency of the CR; and (f) Verify the appropriate board/panel and the board/panel dates.			
1.3.1.3.7	Configuration Control Activities				
1.3.1.3.7.1	Process changes specific to the PI&C contract in accordance with SSP 50123. Review and evaluate ISS Program changes originating from outside the PI&C contract to determine if those changes have potential impacts to the PI&C contract	1. Process PI&C changes  2. Evaluate ISS Program changes originating from outside the PI&C contract.	1. 15 change packages  2. 50-70 change packages	1. Monthly  2. Monthly	N/A
1.3.1.3.7.2	Maintain and process Program Directives (Management Directives, Joint Program Directives and Partner Program Directives) in accordance with SSP 50123.	(1) Prepare redlines to directive (2) Initiate CR and release for evaluation to the ISS Program (3) Incorporate comments (4) Prepare directive for ISS Program signature (5) Release directives in EDMS.	30 Directives	Yearly	N/A
1.3.1.3.7.3	ISS Program Review of Space Shuttle Program and Constellation Program Change requests	Coordinate and prepare a consolidated response to CRs	50	Monthly	N/A

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
		back to the Space Shuttle Program and Constellation Program.			
1.3.1.3.7.4	Special Projects	Participate in special projects requiring lifecycle CM knowledge. Activities will include project planning, documentation changes, expedited CM process development and facilitation of new ISS Program requirements development to support expedited processing and ensure traceability of data is available for certification of flight readiness.	Daily	Daily	N/A
1.3.1.3.8	Input, maintain, and validate the data in the Configuration Status Management Operations System (COSMOS) database daily and provide accurate information, reports, and monthly metrics.	<ol style="list-style-type: none"> <li>1. COSMOS database update</li> <li>2. Reports and metrics</li> <li>3. Coordinate and control user functionality of COSMOS tool</li> <li>4. Perform audit of COSMOS database for accurate information.</li> </ol>	<ol style="list-style-type: none"> <li>1. 50-70 changes</li> <li>2. 20 metrics</li> <li>3. Daily</li> <li>4. Weekly</li> </ol>	<ol style="list-style-type: none"> <li>1. Monthly</li> <li>2. Monthly</li> <li>3. Daily</li> <li>4. Weekly</li> </ol>	N/A
1.3.1.3.8.1	Process all ISS change directive packages in addition to PI&C changes processed under 1.3.1.3.7.1.	<ol style="list-style-type: none"> <li>(a) Obtain, track and status directive packages.</li> <li>(b) Obtain change signatures.</li> <li>(c) Distribute, track and status directive actions to closure.</li> <li>(d) Change Request/Directive data entry.</li> </ol>	50-70 Change Directive Packages (Directive Desk)	Monthly	N/A
1.3.2	Program Data Management and Integration				
1.3.2.1	Maintain and implement an SAE AS9100 compliant data management system.	Assure requirements and processes are implemented across	Daily	Daily	N/A

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
		ISS Program.			
1.3.2.1.1	Update and maintain the on-line Program Documentation Tree.	Maintain the working version of the on-line ISS Program Documentation Tree and provide to the ISS Program.	Daily	Daily	N/A
1.3.2.1.2	Update and maintain the ISS Program technical documentation baseline	1. Upload approved documentation to EDMS and capture documentation data in COSMOS 2. Provide reports and metrics	1. 5 documents  2. 5 metrics	1. Monthly  2. Monthly	N/A
1.3.2.1.3	Maintain Master List and upload Work Instructions	(a) Assign work instruction numbers; (b) Upload work instructions to the authorized Program repository; (c) Update the ISS Program Master List; and (d) Notify author and Quality Management (OX) of updates/releases.	5-7 Work Instructions	Monthly	N/A
1.3.2.1.4	Data Requirement (DR) receipt, tracking, monitoring, reporting, validation, evaluation, distribution, status, and storage for ISS Program contracts and the IP/P data deliverables incoming to the ISS Program	1. DR Receipt, tracking, monitoring, reporting, validation, evaluation, distribution, status, and storage of DRs identified in ISS Program contracts 2. Tracking of IP/P data deliverables identified in SSP 50124, SSP 50126, SSP 50127, SSP 50137, SSP 50407, SSP 50611, SSP 50614	1. 170 deliverables  2. 25 deliverables	1. Monthly  2. Monthly	N/A
1.3.2.1.5	Manage and operate the International Partner library	IP Library management and operation, including receipt, logging, and storage of IP data, such as but not limited to, protocols, faxes, BDEALS deliverables, safety	300 entries into EDMS/IOMS	Monthly	N/A



<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
		data packages, hazard reports, drawings, NAS15-10110 (RSA contract) deliverables, etc.			
1.3.2.1.6	PI&C Provide an Engineering Release Unit (ERU) per SSP 50172.	PI&C ERU	5-8 documents/DCNs released	Monthly	N/A
1.3.2.1.7	Operate a Configuration PI&C Management Receipt Desk (CMRD) per SSP 50123 and SSP 50172.	PI&C CMRD	400-900 change paper items	Monthly	N/A
1.3.2.1.8	Provide Document Quality Assurance (DQA) in accordance with SSP 50010 and SSP 50172 for all ISS Program controlled documentation identified under this contract and NASA owned documents not specified under other existing ISS Program contracts and joint ISS/CxP documentation.	DQA reviews and updates	25 documents	Monthly	N/A
1.3.2.1.9	Maintain and Deliver SSP 50177	1. Maintain and deliver SSP 50177  2. The contractor shall notify other existing ISS Program contractors for delivery of United States and IP/P GFD as required by other contracts through their Data Management on behalf of NASA Data Management.	1. 1 update  2. Daily	1. Yearly  2. Daily	N/A
1.3.2.2	Program Technical Data Access				
1.3.2.2	Integrate and maintain the Orbital Replacement Unit (ORU) data and Flight Support Equipment (FSE) data in the Orbital Replacement Unit Data Directory (ORUDD)	Maintain ORUDD with ORU and FSE data updates	8	Twice per quarter	N/A
1.3.2.2.1	Centralized Program Data Requirements				
1.3.2.2.1	The contractor shall respond to requests for resolving data workflow process issues that cross ISS Program contractual interfaces and	(a) Identification and documentation of the issue or problem; (b) Investigation,	8	Yearly	N/A

SOW	Performance Requirement	Workload Indicators	Quantity	Schedule	DRDs
	impacts to work performance. Responding to, and resolving requests for issues with data work flow processes	analysis and documentation of the data workflow processes involved and the associated interfaces; (c) Development of a resolution plan and schedule; (d) Facilitation of the implementation of the proposed resolution; (e) A three-month follow-up to verify resolution is working and provide rework as identified; and (f) Provision of closeout documentation addressing sub-paragraphs (a) thru (e).			
1.3.2.2.1.1	Certification of Flight Readiness Support	The Contractor shall participate in special projects requiring lifecycle Data Management (DM) knowledge. Activities will include project planning, documentation changes, expedited DM process development and facilitation of new ISS Program requirements development to support expedited processing and ensure traceability of data is available for certification of flight readiness.	Monthly	Monthly	N/A
1.3.2.2.2	Assess the state of technology and the Program's data requirements, processes and infrastructure, and propose new process improvement concepts for the Government's consideration.	These proposed concepts may be driven by one or more of the following reasons: (a) New customer requirements, (b) Improving performance,	Daily	Daily	N/A

SOW	Performance Requirement	Workload Indicators	Quantity	Schedule	DRDs
		efficiency or effectiveness of ISS Program's data requirements and/or processes, (c) New agency or center policies, (d) Conforming to current standards and formats, (e) Reducing operating costs.			
1.3.2.2.3	Provide book coordination functions to include preparation, distribution and processing Document Change Notices (DCNs), Notice of Document Changes (NDCs) and revisions in accordance with SSP 41170 and SSP 50010	(a) BDEALS/ BHSEALS: (1) SSP 50124 (2) SSP 50126 (3) SSP 50127 (4) SSP 50137 (5) SSP 50407 (6) SSP 50614 (7) SSP 50352 (b) SSP 50622-03, Operations Data Set Blank Book, and (c) SSP 50839, ISS Program Operations Description (IPOD).	1 update	Yearly	N/A
1.3.2.2.4	Support to ISS Program Data Users				
1.3.2.2.4	Respond to and resolve inquiries regarding ISS Program data	Inquiry response including special EDMS issues, Critical First Steps (CFS) and migration tasks	65	Monthly	N/A
1.3.2.2.4	Locate data, identify, and resolve data discrepancies and document data processes	Resolution of data discrepancies	16	Yearly	N/A
1.3.2.2.5	Assess and concur on ISS Program Change Requests	Review CRs for request for data to ensure no duplications and delivery of data is in Program authorized repository.	50-70	Monthly	N/A

**V. PERIOD OF PERFORMANCE:** October 1, 2009- September 30, 2010

**VI. TRAVEL REQUIREMENTS:**

**VII. ESTIMATED PRICE BREAKOUT:**

# ORDER FOR SUPPLIES OR SERVICES

PAGE 1 OF 12 PAGES

**IMPORTANT: Mark all packages and papers with contract and/or order numbers.**

1. DATE OF ORDER <b>TBD</b>		2. CONTRACT NO. (If any) <b>NNJ09 C</b>		6. SHIP TO:		
3. ORDER NO. <b>Task Order #3</b>		4. REQUISITION/REFERENCE NO. <b>N/A</b>		a. NAME OF CONSIGNEE <b>Transportation Officer, Building 421, NASA-JSC</b>		
5. ISSUING OFFICE (Address correspondence to) <b>BG/Andrea R. Falls, Contracting Officer</b>				b. STREET ADDRESS <b>2101 NASA Parkway</b>		
7. TO: <b>TBD</b>				c. CITY <b>Houston</b>	d. STATE <b>TX</b>	e. ZIP CODE <b>77054</b>
a. NAME OF CONTRACTOR <b>TBD</b>				f. SHIP VIA		
b. COMPANY NAME <b>TBD</b>				8. TYPE OF ORDER		
c. STREET ADDRESS <b>TBD</b>				<input type="checkbox"/> a. PURCHASE REFERENCE YOUR: _____ Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.		<input checked="" type="checkbox"/> b. DELIVERY -- Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.
d. CITY <b>TBD</b>	e. STATE <b>TBD</b>	f. ZIP CODE <b>TBD</b>				
9. ACCOUNTING AND APPROPRIATION DATA <b>N/A</b>				10. REQUISITIONING OFFICE <b>ISS Program Office, OH</b>		

11. BUSINESS CLASSIFICATION (Check appropriate box(es))						12. F.O.B. POINT <b>DESTINATION</b>
<input type="checkbox"/> a. SMALL	<input type="checkbox"/> b. OTHER THAN SMALL	<input type="checkbox"/> c. DISADVANTAGED	<input type="checkbox"/> g. SERVICE-DISABLED VETERAN-OWNED			
<input type="checkbox"/> d. WOMEN-OWNED	<input type="checkbox"/> e. HUBZone	<input type="checkbox"/> f. EMERGING SMALL BUSINESS				
13. PLACE OF		14. GOVERNMENT B/L NO.	15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)		16. DISCOUNT TERMS	
a. INSPECTION <b>DESTINATION</b>	b. ACCEPTANCE <b>DESTINATION</b>		<b>TBD</b>		<b>TBD</b>	

### 17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	<b>Task Order #3 – MANAGEMENT INTEGRATION AND CONTROL – ISS Program Information Technology</b>					
	Estimated Labor	XXX	hrs.		\$XXXXX.XX	
	Travel				\$XXX.XX	
	Materials				\$XXXXX.XX	

SEE BILLING  INSTRUCTIONS  ON  REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOT. (Cont. pages)
	21. MAIL INVOICE TO:						
	a. NAME <b>Same as Block 5</b>						\$XXXXXXXX.XX
b. STREET ADDRESS (or P.O. Box)							
c. CITY			d. STATE	e. ZIP CODE			

22. UNITED STATES OF AMERICA BY (Signature)	23. NAME (Typed)
---	------------------

TITLE: CONTRACTING/ORDERING OFFICER

**I. TITLE OF EFFORT:** Management Integration and Control Requirements – ISS Program Information Technology (IT)

**II. TASK DESCRIPTION:**

The Contractor shall provide IT resources in accordance with SSP 50013, ISS Information Systems Plan to accomplish the objectives and outcomes described within this delivery order. The Contractor shall propose to the tasks as described in the PI&C Contract Section C, Statement of Work, for the SOW items listed below. Specific workload indicators, quantities, and schedules are provided to scope the magnitude of the required tasks.

**III. STATEMENT OF WORK REFERENCE:** 1.0 Management Integration and Control, 1.4 Program Information Technology

**IV. REQUIREMENTS / DELIVERABLES / SCHEDULE:**

SOW	Performance Requirement	Workload Indicators	Quantity	Schedule	DRDs
1.4	Program Information Technology (IT)				
1.4.1	IT Management and Administration				
1.4.1.1	Report all IT delivered or direct charged to this contract in accordance with SSP 50222, ISS Program Capital Investment Process (CIP)	1. IT POP Planning products	1. Once	1. Per SSP 50222	N/A
1.4.1.1		2. Fiscal Year IT Plan products	2. Once	2. Annually with quarterly updates as required	N/A
1.4.1.2	Develop and implement an IT Management Plan	IT Management Plan	See DRD	See DRD	PIC-IT-01
1.4.1.2	Report IT performance metrics	1. IMPR	1. 12	1. Monthly on 1st working Monday of each month, except when 1st workday is a Monday, then 2nd workday of the month	N/A
1.4.1.2		2. PMR Level 1	2. 12	2. 3rd Thursday of each month	N/A
1.4.1.2		3. Level 2 and Level 3	3. 12	3. 2nd Friday after 1st Monday of each month	N/A
1.4.1.4 1.4.1.5	Develop, document and implement IT project plans	Develop, document and implement project plans to conduct an IT study, IT proposal,	As required	As requested	PIC-IT-02

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
		or IT development project providing statement of the problem, operational concept, system level requirements, preliminary design, schedule, staffing plan, and cost estimate			
1.4.1.6	Maintain the IT Performance Management and Capacity Plan	IT Performance Management and Capacity Plan	Once	Updates as required	N/A
1.4.1.7	Develop and implement an IT Technology Infusion Plan	IT Technology Infusion Plan	Two	As requested	N/A
1.4.1.7.1	Conduct and report trade studies on IT technologies, tools, architectures, methods, processes, trends, and organizations	Report or white paper documenting problem, opportunity for the study; items / options studied or evaluated; evaluation method (including criteria or requirements, weighting, and scoring algorithms); detailed results (including individual scores and rational), conclusion and recommendation.	Three	As requested	N/A
1.4.1.7.2	Execute recommendations as defined in trade studies.	Perform critical first steps as documented in the DM/CM Trade Study Report.	Once	Per task plan	N/A
1.4.2	IT Systems Management and Operations				
1.4.2(a)(1)	Provide the ISSP customer community with full life cycle system support for ISSP IT systems, applications, web pages, platform systems, services, equipment, etc., as defined in Section C, Addendum 3 and Addendum 4, Table 1, Table 2, and Table 3. IT applications will be provided to the contractor in the sustaining phase of the Life Cycle.	1. Full life cycle system support for items defined in Section C, Addendum 3 and Addendum 4, Table 2.	1. See Section C, Addendum 3 and Addendum 4, Table 2. Provide an average of four 4-point releases per application.	1. Continuous	N/A
1.4.2(a)(2)		2. Limited life cycle system support for	2.Continuous	2. Continuous	N/A

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
		unique ISS requirements for the EDMS identified in Section C, Addendum 3			
1.4.2(a)(3)		3. EDMS Sustaining.	3.	3.	
1.4.2(a)(4)		3.a. Perform business admin functions including access management.	3.a. Continuous	3.a. Continuous	N/A
1.4.2(a)(5)		3.b. Support the ISS community by providing EDMS training and anomaly resolution. Define requirements, workflows and document lifecycles, and reports for implementation by the JSC Information Resources Directorate. Define and conduct testing to ensure products meet ISS defined requirements.	3.b. Continuous	3.b. Continuous	N/A
1.4.2(a)(6)		3.c. Provide tier 2 user support function.	3.c. Continuous	3.c. Continuous	N/A
1.4.2(a)(7)		3.d. Provide user training on common and specific product features. Hold periodic user forums.	3.d. Once	3.d. As requested	N/A
1.4.2(a)(8)		4. EDMS Transition	4.	4.	
1.4.2(a)(9)		4.a. Support transition of EDMS from current provider to JSC IRD.	4.a. Continuous	4.a. As defined in Project Plan	N/A
1.4.2(a)(10)		6.c.ii. Support the distribution and administration of the Contribute software tool, as well as the training of Contribute users.	6.c.ii. Continuous	6.c.ii. As defined in Project Plan	N/A
1.4.2(a)(11)		6. Provide for the design and implementation phases of the following projects:	6.	6.	N/A

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
1.4.2(a)(12)		6.a Web Re-architecture	6.a. Continuous	6.a. As defined in Project Plan	N/A
1.4.2(a)(13)	Develop project plans to support IT security initiatives such as HSPD-12, FISMA, etc.	7. Perform IT security strategic planning.	7. Four	7. Per year	PIC-IT-02
1.4.2(b)	Provide streamlining of the life cycle methodology	Streamline life cycle methodology	Once	Per IT system or application	N/A
1.4.2(c)	Address IT security in each phase of the life cycle	Incorporate IT security in the life cycle methodology	Once	Per life cycle phase of each IT system or application	N/A
1.4.2(d)	Implement IT system performance standards	Implementation of IT system performance standards	See Section C, Addendum 3	Continuous	N/A
1.4.2(e)	Provide book coordination of SSP 50013 and SSP 50222	Updates to SSP 50013 (ISS IT Management Plan) and SSP 50222 (Capital Investment Plan)	One update per document	As requested	N/A
1.4.2(f)	Property Custodian	Property management of IT equipment	All government owned property in the NASA NEMS database identified by organization OH2B & OH2L	Continuous	N/A
1.4.2.1	IT Life Cycle Systems Engineering				
1.4.2.1.1	Review Government-provided policies, architectures, standards, and procedures	Recommended modifications and implementation strategies	Continuous	Continuous	N/A
1.4.2.1.2	Provide a representative to attend recurring Government-sponsored meetings	Representative at recurring meetings	1 representative at:		
1.4.2.1.2			A. ISS AIT	A. Bi-weekly	N/A
1.4.2.1.2			B. JSC IT Steering Council	B. Bi-weekly	N/A
1.4.2.1.2			C. Network Access Control Board	C. Weekly	N/A
1.4.2.1.2			D. OCSO Meeting	D. Monthly	N/A
1.4.2.1.2			E. Security Birds of a Feather	E. Monthly	N/A
1.4.2.1.2			F. EDMS Meetings	F. Three per week	N/A
1.4.2.1.2			G. IRD Customer	G. Monthly	N/A



SOW	Performance Requirement	Workload Indicators	Quantity	Schedule	DRDs
			Forum		
1.4.2.1.2			H. JSC Workstation Group	H. Weekly	N/A
1.4.2.1.2			I. Active Directory Working Group	I. Weekly	N/A
1.4.2.1.2			J. JSC Web Committee	J. Monthly	N/A
1.4.2.1.3	Manage the acquisition of commercial off-the-shelf (COTS) software, hardware, and associated maintenance agreements as approved by the Government.	As requested	As requested	As requested	N/A
1.4.2.1.5	Develop, implement, and maintain IT Standard Operating Procedures (SOPs)	SOP	Once	Annually	N/A
1.4.2.1.6	Develop, implement, and maintain an IT Configuration Management Plan	IT CM Plan	Once	Annually	N/A
1.4.2.1.7	Develop IT configuration reports on all equipment and software maintained by and/or operated by the contractor	IT Configuration Reports	Once	Quarterly	N/A
1.4.2.1.8	IT Sustaining Engineering and Operation				
1.4.2.1.8.1	Provide sustaining engineering for multimedia, computer, and network systems.	Sustaining engineering	Section C, Addendum 3 and Addendum 4, Table 2	Continuous	N/A
1.4.2.1.8.2	Manage third party maintenance and license agreements.	Management of third party maintenance and license agreements, including a 5 year planning spreadsheet capturing all expected maintenance purchases.	Section C, Addendum 4, Table 1 and Table 3	Annually or per maintenance schedule	N/A
1.4.2.1.8.3	Minimize disruption to system availability during normal working hours	Schedule outages with the customer in advance of the outage	Per SOP ???	Continuous	N/A
1.4.2.1.8.4	Establish and conduct a preventive maintenance and operational readiness program	Preventive maintenance and operational readiness program	Continuous	Continuous	N/A
1.4.2.1.8.4.1	Remedial Maintenance	Repair or replacement of failed equipment	Section C, Apx 4, Table 1 Section C, Apx	Continuous	N/A

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
		and restoration to operating condition	4, Table 3		
1.4.2.1.8.4.2	Maintenance Agreements and License Management	Plans and schedules for maintenance agreement and license management	Section C, Apx 4, Table 1 Section C, Apx 4, Table 3	Continuous	N/A
1.4.2.1.8.4.3	COTS Upgrades/Maintenance	Patches & version upgrades			
1.4.2.1.8.4.3		a. OS and System patches	a. As required	a. Continuous	N/A
1.4.2.1.8.4.3		b. Emergency patches	b. As required	b. Continuous	N/A
1.4.2.1.8.4.3		c. COTS patches	c. As required	c. Continuous	N/A
1.4.2.1.8.4.3		d. COTS upgrades	d. As required	d. Continuous	N/A
1.4.2.1.8.5	Operate and provide system administration for all systems Attachment J-1, Appendix E	Operation and system administration of IT systems as defined in the SOW	See Section C, Addendum 3	Continuous	N/A
1.4.2.1.8.5.1	Provide Return to Service for IT systems	Return to Service for IT systems	See Section C, Addendum 3	Continuous	N/A
1.4.2.1.8.5.2	System administration functions shall be performed to minimize disruption to system availability	Scheduling of system administration activities	Continuous	Continuous	N/A
1.4.2.1.8.5.3	Provide backup, restore, and archive functions for IT systems	Backup for IT systems	See Section C, Addendum 3	Continuous	N/A
1.4.2.2	IT Security Support				
1.4.2.2.1	Advise ISS Program customers and users on IT security policies and implement approved security and networking solutions	1. Advise ISSP customers and users on IT security policies	1. Continuous	1. Continuous	N/A
1.4.2.2.1		2. Implement approved networking solutions	2. Once per request (SR)	2. As required	N/A
1.4.2.2.2	Monitor production capabilities and respond to requests for IT security support by providing consultation and direct technical assistance to assist customers with the development of requirements for secure firewall and networking solutions	3. Monitor production capabilities	3. Continuous	3. Continuous	N/A
1.4.2.2.2		4. Respond to requests for IT security support	4. Once per request (SR)	4. As required	N/A
1.4.2.2.2		5. Provide review, testing and implementation of NASA configuration	5. Continuous	5. Continuous	N/A

SOW	Performance Requirement	Workload Indicators	Quantity	Schedule	DRDs
		requirements for IT systems.			
1.4.2.1.7.7		6. Manage user accounts for access to ISS applications including additions, modifications, expiration, and deletion as defined in SSP 50013.	6. Continuous	6. Continuous	N/A
1.4.2.2.3	Response to IT Security Issues and Incidents				
1.4.2.2.3(a)	Report all IT security issues, security incidents, problems and resolutions to the ISS Program Organization Computer Security Official (OCSO) and ISS Program IT Lead.	Report IT security issues	Per incident	As required per incident, estimate three to five incidents per month.	N/A
1.4.2.2.3(a)	Provide real-time incident status reports beginning within 24 hours after a security incident.	Real-time incident status reports	Per incident	As required per incident, estimate one to two incidents per month requiring real-time status reports.	N/A
1.4.2.2.3(b)	Process security-related incidents	1. Identification and analysis of security-related incidents	1. Per incident	1. As required per incident, estimate three to five incidents per month.	N/A
1.4.2.2.3(b)		2. Securing computing resources	2. Per incident	2. As required per incident, estimate two to four incidents per year that require securing of computing resources for analysis by JSC IT Security.	N/A
1.4.2.2.3(b)		3. Round the clock response to computer security incidents	3. 15% require after hours response capability	3. As notified by the ISS OSCO or JSC IT Security.	N/A
1.4.2.2.3(c)	Provide analysis of security incidents relating to incorrectly configured systems	Analysis of security incidents and coordination with system owners per	Once	Per incident, estimate two to three incidents per	N/A

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
		vulnerability scans by JSC IT Security or per contract SOP.		month related to incorrectly configured systems.	
1.4.2.2.4	Certification and Accreditation Packages and Documentation	Major re-certification of ISS Production Facility occurs every three years; the next major re-certification is anticipated to occur in June 2010.	Per NPR 2810.1A	Per NPR 2810.1A	PIC-IT-03
1.4.2.2.4(a)	Update and maintain existing C&A packages and related documentation for ISS Program IT systems as per NPR 2810.1A, ITS-SOP-0030C and NIST 800-37.		Per NPR 2810.1A	Per NPR 2810.1A	PIC-IT-03
1.4.2.2.4(a)(1)	Map types of ISS information and ISS Program IT systems to security categories as per NPR 2810.1A, ITS-SOP-0019B, FIPS-PUB-199 and NIST 800-60 (Volumes 1 and 2).	Mapping of information and system types	Per NPR 2810.1A	Per NPR 2810.1A	PIC-IT-03
1.4.2.2.4(a)(2)	Update risk assessments for ISS Program IT systems as per NPR 2810.1A and NIST 800-30.	Risk Assessment	Per NPR 2810.1A	Per NPR 2810.1A	PIC-IT-03
1.4.2.2.4(a)(3)	Update and maintain a Security Plan and a Plan of Actions and Milestones (POA&M) for ISS Program IT systems as per NPR 2810.1A, ITS-SOP-0032 and NIST 800-18 Rev 1, assessing security controls as per NIST 800-53A.	Security Plan, Plan of Actions and Milestones (POA&M)	Per NPR 2810.1A	Per NPR 2810.1A	PIC-IT-03
1.4.2.2.4(a)(4)	Perform periodic technical assessment, security testing and continuous monitoring of ISS Program IT systems as per NPR 2810.1A and NITR 2810-12.	Periodic assessments, security testing and continuous monitoring	Per NPR 2810.1A	Per NPR 2810.1A	PIC-IT-03
1.4.2.2.4(a)(5)	Perform disaster recovery, contingency, and continuity of operations planning and testing for ISS Program IT systems as per NPR 2810.1A and NITR 2810-15. The planning and testing shall include support of Center severe weather annual planning and testing,	Disaster recover, contingency and continuity of operations	Per NPR 2810.1A	Per NPR 2810.1A	PIC-IT-03
1.4.2.2.4(b)	Follow the instructions in ITS-	External systems	Per ITS-SOP-	Per ITS-SOP-	PIC-IT-03

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
	SOP-0033 for any external systems that are managed under this contract		0033	0033	
1.4.2.3	Work Authorization and User Support				N/A
1.4.2.3.1	Gather, organize, and disseminate IT information to the customer community.	1. Communication of IT information.	1. Approximately 5 messages or notices.	1. Monthly	N/A
1.4.2.3.1	Review and coordinate responses to e-mail traffic.	2. Reviewing and coordinating responses to e-mail traffic	2. Approximately 10,000 messages	2. Yearly	N/A
1.4.2.3.1	Manage user accounts for access to ISS applications including additions, modifications, expiration, and deletion as defined in SSP 50013.	3. Manage user accounts	3. Approximately 5,000 user accounts.	3. Continuous	N/A
1.4.2.3.2	User Requirements/Analysis				
1.4.2.3.2(a)	Perform data gathering, entry, and analysis of requests	1. Develop/update processes and work instructions	Continuous	Continuous	N/A
1.4.2.3.2(a)		2. Coordinate the ISS Program SR process between the customer, OH2 Management, and Contractor	Approximately 300 – 500 Service Requests	Monthly	N/A
1.4.2.3.2(a)		3. Validate customer data prior to submitting for processing and implementation			N/A
1.4.2.3.2(a)		4. Monitor ISS Program SRs (and any related requests, such as institutional IRD SRs) to completion. Issues should be elevated to NASA OH2 management.			N/A
1.4.2.3.2(a)		5. Status of service requests	Once	Weekly	N/A
1.4.2.3.2(a)		6. Metrics provided on a monthly basis	Once	Monthly	N/A
1.4.2.3.2(b)	Document and coordinate implementation of IT requirements requested for implementation by institutional IT providers	Documentation and coordination of IT requirements	70% of requests require an IRD SR for JSC institutional services	Yearly	N/A
1.4.2.3.2(c)	Serve as the primary point of contact for IT services	Primary POC for non-institutional IT	Approximately 50 – 100	Monthly	N/A

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
	required to support end users	Services	Service Requests		
1.4.2.3.3	ISS Program Loan Pool				
1.4.2.3.3(a)	Serve as the primary point of contact for loan pool services	Primary POC for loan pool services	Approximately 90 Service Requests	Monthly	N/A
1.4.2.3.3(b)	Develop and maintain user guides/desktop instructions for services that require user self-installation	1. Maintain existing Guides and instructions	1. Once	1. Yearly	N/A
1.4.2.3.3(b)		2. Develop new guides and instructions	2. 1-2 guides	2. Yearly	N/A
1.4.2.3.3(c)	Develop and maintain procedures for appropriate property management of the ISS loan pool products, compliant with NASA Property Management procedures	Standard Operating Procedures (SOPs) for ISS Loan Pool operations	Once	Updates as required	N/A
1.4.2.3.3(d)	Report property losses	Provide reports of property losses	Once	Per incident	N/A
1.4.2.3.3(e)	Develop, implement, and maintain a standard load consistent with the approved JSC laptop load and any related policies and practices for the loan pool laptops	Standard load	Once	Per configuration	N/A
1.4.2.3.3(f)	Provide augment standard load configuration in order to support specific user requirements	Unique updates to standard load	20% of loan pool request	Monthly	N/A
1.4.2.3.4	Ensure that the contractors internal work management and tracking systems interface seamlessly with the Customer Service System	Closed loop accounting for work authorizations	Continuous	Continuous	N/A
1.4.2.3.5	Track, resolve, and report on problems associated with systems, products, and services	Problem Reports	Once	Yearly	N/A
1.4.2.3.6	Provide desktop support to ISSP IT not supported by other institutional providers. Desktop support are those services which support the users desktop environment; such as, but not limited to, loading/configuring local and network software, drivers, printers, peripherals, and data migration.	1. Desktop support	1. 200 – 300 Service Requests	1, Yearly	N/A
1.4.2.3.7	Conduct customer satisfaction surveys on all IT Operations SRs and ASRs servicing end users.	2. Customer Satisfaction Survey	2. Once	2. Monthly (reported as Level 2 metric)	N/A
1.4.2.3.8	The contractor shall provide	Physical space	Approximately	Monthly	N/A

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
	assistance in space utilization, coordination/facilitation, and planning for ISSP physical space requirements at JSC.	request assessments, coordination, recommendations, tracking, and reporting.	40 – 80 Service Requests		
1.4.2.3.9	Manage interconnection access between ISS IPs and ISS Program resources. Work with JSC sponsors to process requests from ISS IPs for access to ISS Program servers and applications. Coordinate processing of Access Control Plan (ACP) requests and IRD Service Requests (SRs) for JSC accounts for ISS IPs.	Interconnection requests from ISS IPs.	Approximately 2000 requests	Yearly	N/A
1.4.2.3.11	Facilitate and support meetings to resolve application and network connectivity issues between IPs and ISS Program systems.	Meetings to resolve application and network connectivity issues	As required	Continuous	N/A

**V. PERIOD OF PERFORMANCE:** October 1, 2009- September 30, 2010

**VI. TRAVEL REQUIREMENTS:**

**VII. ESTIMATED PRICE BREAKOUT:**

# ORDER FOR SUPPLIES OR SERVICES

**IMPORTANT: Mark all packages and papers with contract and/or order numbers.**

1. DATE OF ORDER <b>TBD</b>		2. CONTRACT NO. (If any) <b>NNJ09 C</b>		6. SHIP TO:		
3. ORDER NO. <b>Task Order #4</b>		4. REQUISITION/REFERENCE NO. <b>N/A</b>		a. NAME OF CONSIGNEE <b>Transportation Officer, Building 421, NASA-JSC</b>		
5. ISSUING OFFICE (Address correspondence to) <b>BG/Andrea R. Falls, Contracting Officer</b>				b. STREET ADDRESS <b>2101 NASA Parkway</b>		
7. TO: <b>TBD</b>				c. CITY <b>Houston</b>	d. STATE <b>TX</b>	e. ZIP CODE <b>77054</b>
a. NAME OF CONTRACTOR <b>TBD</b>				f. SHIP VIA		
b. COMPANY NAME <b>TBD</b>				8. TYPE OF ORDER		
c. STREET ADDRESS <b>TBD</b>				<input type="checkbox"/> a. PURCHASE REFERENCE YOUR: _____ Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.		<input checked="" type="checkbox"/> b. DELIVERY -- Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.
d. CITY <b>TBD</b>	e. STATE <b>TBD</b>	f. ZIP CODE <b>TBD</b>				
9. ACCOUNTING AND APPROPRIATION DATA <b>N/A</b>				10. REQUISITIONING OFFICE <b>ISS Program Office, OH</b>		

11. BUSINESS CLASSIFICATION (Check appropriate box(es))						12. F.O.B. POINT <b>DESTINATION</b>	
<input type="checkbox"/> a. SMALL	<input type="checkbox"/> b. OTHER THAN SMALL	<input type="checkbox"/> c. DISADVANTAGED	<input type="checkbox"/> g. SERVICE-DISABLED VETERAN-OWNED				
<input type="checkbox"/> d. WOMEN-OWNED	<input type="checkbox"/> e. HUBZone	<input type="checkbox"/> f. EMERGING SMALL BUSINESS					
13. PLACE OF			14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)		16. DISCOUNT TERMS
a. INSPECTION <b>DESTINATION</b>		b. ACCEPTANCE <b>DESTINATION</b>		<b>TBD</b>		<b>TBD</b>	

### 17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	<b>Task Order #4 – ISS System Engineering, Analysis, and Integration – System Analysis and Integration</b>					
	Estimated Labor	XXX	hrs.		\$XXXXX.XX	
	Travel				\$XXX.XX	
	Materials				\$XXXXX.XX	

SEE BILLING  INSTRUCTIONS  ON  REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOT. (Cont. pages)
	21. MAIL INVOICE TO:						
	a. NAME <b>Same as Block 5</b>						
b. STREET ADDRESS (or P.O. Box)						17(i) GRAND TOTAL	
c. CITY		d. STATE	e. ZIP CODE		\$XXXXXXXX.XX		

22. UNITED STATES OF AMERICA BY (Signature)	23. NAME (Typed)
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TITLE: CONTRACTING/ORDERING OFFICER



**I. TITLE OF EFFORT:** ISS System Engineering, Analysis, and Integration – System Analysis and Integration

**II. TASK DESCRIPTION:**

The Contractor shall provide the following ISS systems analysis and integration requirements. The Contractor shall coordinate ISS documents in accordance with SSP 30219, ISS Reference Coordinate Systems Document. The Contractor shall propose to the tasks as described in the PI&C Contract Section C, Statement of Work, for the SOW items listed below. Specific workload indicators, quantities, and schedules are provided to scope the magnitude of the required tasks.

**III. STATEMENT OF WORK REFERENCE:** 2.0 ISS Systems Engineering Analysis, and Integration, 2.2 System Analysis and Integration

**IV. REQUIREMENTS / DELIVERABLES / SCHEDULE:**

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
2.0	SYSTEM ENGINEERING, ANALYSIS, AND INTEGRATION				
2.1	RESERVED				
2.2	System Analysis and Integration				
2.2.1	Program Requirements and Interfaces				
2.2.1.1	ISS Specifications and ICDs Maintenance				
2.2.1.1.a	Provide book coordination functions for ISS Specifications, Interface Control Documents (ICDs), and Interface Requirements Documents (IRDs)	Updates to Specs, IRDs, ICDs	See Addendum 6	See DRD	PIC-SI-01
2.2.1.1.b	Maintain the contents of the Master File for all Specifications and ICDs/Interface Requirements Documents (IRDs)	Update Master File	1 update	Monthly	N/A
2.2.1.1.c	Maintain tracking logs of Specifications, CRs and ICD/IRD Revisions and History	Tracking Logs	1 update	Monthly	N/A
2.2.1.1.d	Maintain, update and produce Requirements Traceability and Management (RTM) Reports	RTM reports	See DRD	See DRD	PIC-SI-02

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
2.2.1.1.e	Identify and track non-incorporated CRs to all retired, or no longer actively maintained, ISS specifications and ICDs	Identification and tracking of non-incorporated CRs	8 CRs	Weekly	N/A
2.2.1.1.f	Review all program CRs to assess impacts to supported documents.	CR Evaluations	15 CRs	Weekly	N/A
2.2.1.2	Coordination and review of ISS Specifications and ICDs				
2.2.1.2.a	Provide technical review Specifications and ICDs during Milestone Reviews	Comments to Specifications and ICDs	3 reviews at 20 comments per review.	Yearly	N/A
2.2.1.2.b	Provide technical review and coordination of Preliminary Interface Notices (PIRNs) and Document Change Notices (DCNs)	Comments to PIRNs and DCNs	60	Monthly	N/A
2.2.1.3	ICWG				
2.2.1.3.1	Maintain and update Hardware Interfaces Tracking System (HITS) Microsoft Access database				
2.2.1.3.1.a	Track and provide ICD metrics reports	ICD Metrics reports	1	Monthly	N/A
2.2.1.3.1.b	Track and provide Element Manager Open PIRNs reports	Element Manager Open PIRNs reports	8	Weekly	N/A
2.2.1.3.1.c	Track and provide reports identifying TBDs	Reports identifying TBDs	1	Monthly	N/A
2.2.1.3.1.d	Track and provide Open Issues reports	Open Issues reports	1	Monthly	
2.2.1.3.2	Provide administrative support for Milestone Reviews	Administrative support for Milestone Reviews	3	Yearly	N/A
2.2.1.3.3	Prepare, distribute, maintain and track Interface Memorandums	Interface Memorandums	16	Monthly	N/A
2.2.1.3.4	PIRN and DCN Development and Maintenance				
2.2.1.3.4.a	Prepare, distribute, process, maintain, and track Preliminary Interface Revision Notices (PIRNs)	ICD PIRNs	5	Monthly	N/A
2.2.1.3.4.b	Prepare, distribute, process, maintain, and track Document Change Notices (DCNs)	IRD DCNs	3	Monthly	N/A
2.2.2	System Performance Analysis and Integration	Recommendations to ISSP management and assistance in development of strategic requirements	Twice	Monthly	PIC-SI-03

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
2.2.2.1	Mission Analysis and Integration				
2.2.2.1.1	Attitude Requirements				
2.2.2.1.1.a	Develop, coordinate and obtain ISSP approval of the flight attitude requirements for the ISS operations	Flight attitude requirements	Nine	Yearly	PIC-SI-03
2.2.2.1.1.b	Input and maintain approved attitude requirements in the Space Station Certification Baseline Document (SSP 50699-03)	Flight attitude requirements updates in Cert Baseline (SSP 50699-03)	Once	Yearly	PIC-SI-03
2.2.2.1.2	Develop and coordinate the ISS altitude strategy	1. Altitude strategy assessment 2. Update Altitude Strategy in OSD 3. Provide inputs to Mission Integration team 4. VAC Statement Preparation	1. Once 2. Once 3. 1 per Increment 4. 1 per Flight	1. Quarterly 2. Annually 3. Increment-18 months 4. L-2 months	PIC-SI-04
2.2.2.1.3	Integrate rendezvous, proximity, and other special operations requirements and constraints related to attitudes and system configurations for joint operations between the ISS and all ISS Visiting Vehicles	1. Requirements and constraints for joint operations between ISS and all ISS Visiting Vehicles 2. Development of the Space Shuttle/ISS Proximity Operations Timelines 3. Baseplate deliveries	1. 1-2 design reviews and 75 biweekly teleconferences 2. 1 per Flight 3. Once	1. Yearly 2. L-5 months 3. Monthly	PIC-SI-03
2.2.2.1.3.1	Integrate rendezvous, proximity, and other special operations requirements and constraints related to attitudes and system configurations for joint operations between the ISS and the Crew Exploration Vehicle (CEV)	Requirements and constraints development for joint operations between ISS and CEV	4 assessments/major reviews	Yearly	N/A
2.2.2.1.3.2	Integrate rendezvous, proximity, and other special operations requirements and constraints related to attitudes and system configurations for joint operations between the ISS and the Commercial Orbital Transfer Services (COTS) vehicles.	Requirements and constraints development for joint operations between ISS and COTS.	12 assessments/major reviews	Yearly	N/A

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
2.2.2.1.3.3	Comply with US requirements for information security to assess analyses analysis and data incorporating the classified capabilities of the US national technical means, wherever necessary to complete the assigned special operations assessments.	Assessments/meeting support requiring such information security, which includes but are not limited to, planning, analysis, and scientific observation of the end-of-life de-orbit of the ISS.	Once	Monthly	N/A
2.2.2.1.4	Provide predictions for the ISS solar beta angle	Predictions for ISS solar beta angle	Once	Quarterly	PIC-SI-03
2.2.2.1.5	Develop, track, and maintain the strategic allocation of Vehicle technical resources	Strategic allocation of Vehicle technical resources	Once	Quarterly	PIC-SI-03
2.2.2.1.5.1	Coordinate projected water delivery and usage rates with ISS Program suppliers and users of water	Projections for water delivery and usage rates	Once per increment	Increment - 18 months	PIC-SI-03
2.2.2.1.6	Applications and Data Systems	Updates to applications and data systems	1 update for each of 2 applications and data systems.	Yearly	N/A
2.2.2.2	Mission Requirements and Support				
2.2.2.2.1	Provide strategic mission requirements, concepts, constraints, and resource allocations to the ISS Mission Integration team and NASA Mission Operations Directorate (MOD) to support development of mission planning, flight rules, and training	Strategic mission requirements, concepts, constraints, and resource allocations to Mission Integration Team and MOD	One initial delivery per new Visiting Vehicle flight and one per Shuttle flight. One update per flight at Flight Operations Review	Launch - 18 months Launch - 6 months	N/A
2.2.2.2.2	Review of Operations Products				
2.2.2.2.2.a	Review the ISS operations plans and procedures to ensure that all ISS Program strategic technical constraints are satisfied	Comments to ISS operations plan and procedures	Once per Shuttle flight at FOR	Launch - 6 months	N/A
2.2.2.2.2.b	Review crew procedures that are related to systems activation or rechannelization, or to environment interactions to ensure that all strategic technical constraints are satisfied	Comments to crew procedures	Once per Shuttle flight at FOR	Launch - 6 months	N/A

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
2.2.2.2.2.c	Flight Rule Change Request (CR) coordination, technical reviews, and tracking for OM3	1. Review ISS Program Flight Rule CRs, assign and perform technical reviews.  2. Provide weekly CR tracking to VIPER Working Group	1. 100 Flight Rule CR reviews  2. Once	1. Monthly  2. Weekly	N/A
2.2.2.2.3	Report to ISS Program Management the closure of the ISS Stage Integration Reviews (SIRs) as defined in SSP 50200-1.	Close SIR issues as a result of formal review of assembly and operations plans for each flight and all pertinent ICDs. Provide weekly status reports to ISSP Management	Once	Weekly	N/A
2.2.2.2.4	Provide technical support as needed to Mission Operations Directorate and to the ISSP through assessment of strategic ISS impacts during resolution of significant in-flight anomalies	Assessments of strategic ISS impacts resulting from anomalies	7 anomalies	Yearly	PIC-SI-03
2.2.2.3	Provide overall system analysis and integration of the ISS and associated interfaces				
2.2.2.3.1	Integrate ISS operational procedures and hardware thermal performance data to ensure component survivability from launch to its activation on the ISS	LTA Analysis, which is a thermal assessment of assembly, deployment timeline and assumptions for external hardware in Shuttle cargo bay that is deployed on ISS (complexity and scope varies per flight)	One per Shuttle Flight	Launch - 6 months	N/A
2.2.2.3.2	Provide recommendations to ISS Program management in the development and prioritization of tasks performed by NASA institutional resources for the Shuttle/ISS Induced Loads and Plume Heating analyses	1. Recommendations regarding Visiting Vehicle/ISS Induced Loads  2. Recommendations regarding Plume Heating analyses	1. 1-2 recommendations  2. 1-2 recommendations	1. Yearly  2. Yearly	N/A

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
2.2.2.3.3	Develop and provide strategic assessments of ISS Thermal System Performance (TSP) throughout assembly phases and other significant ISS operations	Strategic assessments of ISS Thermal System Performance development.	Once per increment	Launch - 18 months	PIC-SI-03
2.2.2.3.4	Develop and provide heat load allocations to the ISS end-user community, based upon active heat rejection margin analysis	Heat load allocations development.	Once per increment	Launch - 18 months	PIC-SI-03
2.2.2.3.5	Develop and provide power allocations to the ISS end-user community, based upon Integrated Energy Balance margin analysis	Power allocations for IDR development and SCEPTER Tool Maintenance.	Once per increment	Launch - 18 months	PIC-SI-03
2.2.2.3.6	Provide systems integration support for assembly, off-nominal situations, and strategic operations that involve the Electrical Power Subsystem.	Provide technical support for Plasma SPRT, Solar Array Constraints WG, Bilateral Electrical WE, and VAC analysis.  Perform Electrical Power Subsystem special studies in support of nominal, off-nominal, and assembly situations	96  7 studies	Yearly  Yearly	N/A
2.2.2.4	ISS Program Change Request coordination, technical reviews, and tracking for OM3.	1. Review ISS Program CRs, assign and perform technical reviews.  2. Provide weekly CR tracking to VIPER Working Group	1. 50 CR reviews  2. Once	1. Monthly  2. Weekly	N/A
2.2.3	Assembly and Configuration Definition/Analysis				
2.2.3.1	Assembly Sequence Analysis and Definition				
2.2.3.1.01	Develop and maintain the Integrated Flight Schedule (IFS) and Reference Assembly Sequence Overview	1. IFS  2. ASOV	1. Fourteen  2. Fourteen	1. Yearly  2. Yearly	1. N/A  2. N/A

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
2.2.3.1.2	Perform ISS Program Crew Rotation Plan assessments	Crew Rotation Plan assessments  1. Major Study requiring more than 1 month to assess  2. Minor Study requiring less than 1 month to assess	1. Two  2. Two	1. Yearly  2. Yearly	1. N/A  2. N/A
2.2.3.1.3	Develop and maintain the BASEPLATE	BASEPLATE release	1. 48	1. Yearly	1. N/A
2.2.3.1.4	Develop and maintain Flight Program Figure	Flight Program Figure ( FPF)	12	Yearly	N/A
2.2.3.1.5	Strategic Flight Plan Development	MIM (or equivalent) update	One	Yearly	N/A
2.2.3.1.6	Provide Mission Overviews for Program Mission Integration Office	Mission Overviews are developed to support flight transition from strategic to tactical timeframes	One	At L-18 months for each ISS shuttle flight mission	N/A
2.2.3.1.7	Assess proposed tactical and strategic mission updates and identify issues and/or impacts to the SFP	Strategic and tactical assessments	6	Yearly	N/A
2.2.3.1.8	Participate in the OM2 Working Group and provide the integration and coordination of strategic ISS/SSP flight inputs to the SSP and ISS Program Boards/Panels	Strategic ISS/SSP flight inputs to the Space Shuttle Program	4-5 meetings	Monthly	N/A

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
2.2.3.1.9	Represent the Strategic Planning and Integration Team as a technical expert at boards and panels	Technical representative for Strategic Planning and Integration Team 1. RIP 2. FPWG 3. IMT 4. PICB 5. JOP 6. Videoconferences/Teleconferences 7. SSCB 8. MIOCB 9. Logistics and Maintenance End-to-End 10. SWG 11. VCB 12. AWG 13. TIMs 14. FAWG 15. CTWG	1. 3-4 meetings 2. 1-4 meetings 3. 1 meeting 4. 2-4 meetings 5. 1-3 meetings 6. 8-12 meetings 7. 4 meetings 8. 1-2 meetings 9. 1 meeting 10. 1 meeting 11. 1 meeting 12. 4 meetings 13. 2-4 meetings 14. 1 meeting 15. 4 meetings	1. Monthly 2. Monthly 3. Monthly 4. Monthly 5. Quarterly 6. Monthly 7. Annually 8. Monthly 9. Monthly 10. Monthly 11. Monthly 12. Monthly 13. Annually 14. Monthly 15. Monthly	N/A
2.2.3.1.10	Provide technical inputs and review assessments for other ISS Program documents or reviews.	Technical inputs to ISS documents and reviews. Documents include: IDRDs, GGR&C, SPIP (Volume 2), and Flight Data File Review (FDR). Technical Coordination Meeting and Change Request Evaluations	30 inputs	Monthly	N/A
2.2.3.1.11	Develop and Provide strategic studies	Special Studies  1. Major Strategic Study requiring more than 2 months to asses.  2. Minor Strategic Study requiring less than 1 month and greater than 1 week to asses.  3. Quick Strategic Study requiring one week or less to assess.	1. Two  2. Twenty-five  3. Thirty-five	1. Yearly  2. Yearly  3. Yearly	
2.2.3.1.13	Perform the Annual Traffic Model Report	ISS strategic resupply / logistics (traffic model) analyses	Once	Yearly	PIC-SI-03
2.2.3.1.14	Develop the Semi-Annual Traffic Model Assumptions Document	ISS strategic resupply/logistics (traffic model) assumptions document	Two	Yearly	PIC-SI-03



<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
2.2.3.1.15	Applications and Data Systems	Updates to applications and data systems  1. SPI action item tracking database  2. Traffic model spreadsheets  3. SPEARMAN  4. CR tracking database  5. BASEPLATE	Three	Yearly	N/A
2.2.3.1.16	Develop Groundrules and Constraints for the ATV, HTV, and 6 Crew Operations related to vehicle traffic, crew time, and crew rotation.	GGR&C updates  1. Visiting Vehicle traffic (ATV and HTV)  2. Crew time  3. Crew rotation  4. 6-Crew	1. Six  2. Two  3. Two  4. Three	Yearly  Yearly  Yearly  Yearly	N/A
2.2.3.2	Configuration Analysis, Modeling and Mass Properties (CAMMP)				
2.2.3.2.1	Shall maintain a technical understanding of the on-orbit vehicle assembly flows and the associated on-orbit hardware configuration for flight, intermediate, and stage configurations. The contractor shall also maintain a technical understanding of the assembly and configuration constraints necessary to manage the strategic, tactical, and real-time external Vehicle configuration	Review of maturing configuration data to maintain technical understanding of on-orbit vehicle assembly flows, hardware configuration, and configuration constraints	33 times	Yearly	N/A
2.2.3.2.2	Assess, integrate, and coordinate requirements associated to the ISS external vehicles configuration, that impact the external configuration for flight, intermediate, and/or stage configurations	ISS external vehicle configuration requirements development 1. Review data for maturing hardware 2. Participate in design reviews	1. 18 times  2. 2 reviews	1. Yearly  2. Yearly	N/A

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
2.2.3.2.3	Maintain and update the SSP 50504, ISS Configuration Document and Assembly Matrix	1. SSP 50504 updates 2. Assembly Matrix update for SSP 50504 (to assembly complete) 3. Assembly Matrix update for Blue Book development (covers 18 month Blue Book timeframe)	1. One 2. One 3. One	1. Yearly 2. Yearly 3. Yearly	N/A
2.2.3.2.4	Maintain and coordinate the revision of SSP 30219, Space Station Reference Coordinate Systems, that documents the ISS reference coordinate systems for major elements and robotically handled items	SSP 30129 updates	One	Yearly	N/A
2.2.3.2.5	CAD Model Development Support				
2.2.3.2.5.a	Participate in CAD Model User Technical Interchange Meetings (TIMs) and Measurement Technical Interchange Meetings (TIMs). Provide inputs necessary to get the necessary validated and as-built CAD models	Participate in CAD Model TIMs and provide technical inputs per flight	Six TIMs	Yearly	N/A
2.2.3.2.5.b	Ensure that the external physical configuration data needed by the ISS/SSP users is provided	Physical configuration data from CAD models is available to ISS/SSP users	One	Monthly	N/A
2.2.3.2.6	Develop and gain concurrence of external configuration protocols with the International Partners and any other affected teams	IP External Configuration protocols	One	Yearly	N/A
2.2.3.2.7	Develop and review the mission-specific ISS/SSP On-Orbit Interface Control Document (ICD), Section 3, Physical Configuration for each Shuttle flight.	ISS/SSP On-orbit ICD, Section 3, and Physical Configuration	Initial: One per Shuttle flight Update: Average Four Shuttle flights	Initial: Baselined at Launch - 10 months	N/A
2.2.3.2.8	Develop and distribute Vehicle Configuration Joint Working Group (JTWG) mission-specific vehicle configuration data sources letters to the ISS/SSP community	JTWG mission specific configuration data sources letters	Initial: One per Shuttle flight Update: One per Shuttle flight	Initial: Launch - 9 months Update: Launch - 4 months	N/A

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
2.2.3.2.9	Maintain and utilize the External Configuration Analysis and Tracking Tool (ExCATT) and provide web-based reports accessible by the ISS Program	Current and planned external configuration items location tracking and reporting. ExCATT web-based reports 1. COFR report 2. Pre-flight plan 3. Post flight	1. One per ISS flight (Shuttle and visiting vehicles) 2. One update per Shuttle flight 3. One update for each Shuttle flights	1. L-1 month 2. L-1 week 3. Landing + 3 weeks	N/A
2.2.3.2.10	Develop revisions of the On-orbit Assembly Modeling and Mass Properties Data Book	Mass Properties Data Book includes the mass and aerodynamic properties for each ISS flight and corresponding intermediate stage configurations for and 18 month span of time.	See DRD	See DRD	PIC-SI-04
2.2.3.2.11	Review ISS Vehicle Sustaining Engineering team Launch - 30 days delivery of pre-flight on-orbit ISSP mass properties prior to every ISS flight docking, undocking and redocking. Coordinate and resolve issues due to mass properties differences between the Launch - 30 days data delivery and the Blue Book	Reconcile discrepancies as required between ISS vehicle Sustaining Engineering Launch - 30 days mass properties and Blue Book	For each flight as follows: 4 Soyuz, 4 Progress, 1 ATV or HTV 1 COTS and 5 Shuttle	Launch - 30 days	N/A
2.2.3.2.12	Perform ISS configuration, clearance external stowage and mass property analysis using approved 3D CAD models	ISS configuration, clearance external stowage, and mass property analysis to include visiting vehicle docking clearance.	Four	Monthly	N/A
2.2.3.2.13	Develop and deliver simplified 3D CAD models to the IP's in .igs and .step formats	Simplified 3D CAD models development and delivery to IP's for non-Russian Segment on-orbit configuration hardware	Four	Yearly	N/A
2.2.3.2.14	Provide electronic dimensioned and non-dimensioned hidden line or shaded drawings to support the development of ISS documentation	Dimensioned and non-dimensioned hidden line or shaded drawings	Four	Yearly	N/A

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
2.2.3.2.15	Maintain the CAMMP team website to record and communicate CAMMP activities to the NASA community. Provide launch vehicle ascent and descent weight assessments to support manifest assessments in the strategic timeframe	Update CAMMP team website	8 times	Monthly	N/A
2.2.3.2.16	Participate in the OM2 Working Group	Document the CAMMP Program processes.	One	Weekly	N/A
2.2.3.2.17	Provide technical inputs and review for ISSP documents or reviews	Change Request (CR) review	Twenty	Monthly	N/A
2.2.3.2.18	Provide technical support as needed to Mission Operations Directorate and to the ISS Program through assessment of strategic ISSP (including IP/P) impacts during resolution of significant in-flight anomalies. Such support includes provision of technical assessments that individual specialists within the contractor's employ may be able to provide to the Mission Evaluation Room (MER), working with the Vehicle Sustaining Engineering team on a temporary basis to resolve mission or life-critical issues.	Anomaly Resolution Support to the MER	For each flight as follows: 4 Soyuz, 4 Progress, 1 ATV or HTV 1 COTS and 5 Shuttle	Yearly	
2.2.3.3	Internal Volume Configuration (IVC)				
2.2.3.3.1	Provide and maintain criteria for evaluating and prioritizing ISS internal volume demands in accordance with SSP 50261-01 (Generic Ground Rules and Constraints), Section 3.12, IVC Constraints & Ground Rules.	Input to SSP 50261-01 to include criteria for evaluation and prioritization of ISS internal volume demands	One	Yearly	N/A

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
2.2.3.3.2	Document and maintain the planned ISS IVA topology in SSP 50564	Updated ISS Interior Volume Configuration topologies  1. Baseline updated in SSP 50564 associated with MIM updates or major interim assembly sequence releases  2. Updates to working version based on latest program planning data, approved CRs, and hardware changes to support trade studies, hardware development, and IVA systems integration	1. One  2. One	1. Yearly  2. Monthly	N/A
2.2.3.3.3	Develop and maintain a unified 3D CAD model of the Station's interior	ISS integrated interior 3D CAD model consisting of all modules, racks, and significant GFE for a particular ISS stage	Two per ISS flight as per DRD	See DRD	PIC-SI-05
2.2.3.3.4	Graphically analyze the acceptability of the ISS planned configurations based on the documented pass/fail criteria	Reports in a predefined format of the graphic analysis of the ISS planned configuration based on evaluation of the ISS interior 3D CAD models, including VAC statement preparation	Two per ISS flight	One at Launch - 9 months One at Launch - 3 months	PIC-SI-03
2.2.3.3.5	Develop major situation unique analyses, as required, to provide inputs to ISSP planning and issue resolution. This shall include developing updated IVA topologies, relevant 3D CAD models, reports on IVA issue resolution, significant integration analysis, major hardware design support, and presentation to ISS Boards and Review Panels.	Major and minor situation unique analyses	Four	Yearly	N/A
2.2.3.3.6	Maintain the IVCWG website to record and communicate IVC activities to the NASA community	Update IVCWG website	Two	Monthly	N/A

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
2.2.3.3.7	Participate in hardware design reviews to ensure identification and resolution of potential issues regarding design features that, if not resolved, would result in GGR&C IVC exceptions.	Identification of potential protrusions into ISS operational envelopes, that would require an exception to the GGR&Cs section 3.12, documented as RIDs in formal design reviews	Two hardware reviews	Yearly	N/A
2.2.3.3.8	Participate in the OM2 Working Group	Document the IVC Program processes.	One	Weekly	N/A
2.2.3.3.9	Provide technical inputs and review for Payload Protrusion PIRNS and other ISS Program documents or reviews.	Technical inputs to ISS documents and reviews. Documents include: IDRDs, Payload Protrusion PIRNs, and hardware ICDs  1. IDRD inputs: Table 4.3 Accommodations Tables and Appendix D Topologies  2. Payload Protrusion PIRN reviews  3. Hardware ICDs and Associated TCMs  4. Change Request (CR) review	1. Three 2. Six 3. Three 4. one	1. Yearly 2. Yearly 3. Yearly 4. Monthly	N/A

**V. PERIOD OF PERFORMANCE:** October 1, 2009- September 30, 2010

**VI. TRAVEL REQUIREMENTS:**

**VII. ESTIMATED PRICE BREAKOUT:**

# ORDER FOR SUPPLIES OR SERVICES

**IMPORTANT: Mark all packages and papers with contract and/or order numbers.**

1. DATE OF ORDER <b>TBD</b>		2. CONTRACT NO. (If any) <b>NNJ09 C</b>		6. SHIP TO:		
3. ORDER NO. <b>Task Order #5</b>		4. REQUISITION/REFERENCE NO. <b>N/A</b>		a. NAME OF CONSIGNEE <b>Transportation Officer, Building 421, NASA-JSC</b>		
5. ISSUING OFFICE (Address correspondence to) <b>BG/Andrea R. Falls, Contracting Officer</b>				b. STREET ADDRESS <b>2101 NASA Parkway</b>		
7. TO: <b>TBD</b>				c. CITY <b>Houston</b>	d. STATE <b>TX</b>	e. ZIP CODE <b>77054</b>
a. NAME OF CONTRACTOR <b>TBD</b>				f. SHIP VIA		
b. COMPANY NAME <b>TBD</b>				8. TYPE OF ORDER		
c. STREET ADDRESS <b>TBD</b>				<input type="checkbox"/> a. PURCHASE REFERENCE YOUR: _____ Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.		<input checked="" type="checkbox"/> b. DELIVERY -- Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.
d. CITY <b>TBD</b>	e. STATE <b>TBD</b>	f. ZIP CODE <b>TBD</b>				
9. ACCOUNTING AND APPROPRIATION DATA <b>N/A</b>				10. REQUISITIONING OFFICE <b>ISS Program Office, OE</b>		

11. BUSINESS CLASSIFICATION (Check appropriate box(es))					12. F.O.B. POINT <b>DESTINATION</b>	
<input type="checkbox"/> a. SMALL	<input type="checkbox"/> b. OTHER THAN SMALL	<input type="checkbox"/> c. DISADVANTAGED	<input type="checkbox"/> g. SERVICE-DISABLED VETERAN-OWNED			
<input type="checkbox"/> d. WOMEN-OWNED	<input type="checkbox"/> e. HUBZone	<input type="checkbox"/> f. EMERGING SMALL BUSINESS				
13. PLACE OF		14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)		16. DISCOUNT TERMS
a. INSPECTION <b>DESTINATION</b>	b. ACCEPTANCE <b>DESTINATION</b>			<b>TBD</b>		<b>TBD</b>

### 17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	<b>Task Order #5 – ISS Safety and Mission Assurance</b>					
	Estimated Labor	XXX	hrs.		\$XXXXX.XX	
	Travel				\$XXX.XX	
	Materials				\$XXXXX.XX	

SEE BILLING  INSTRUCTIONS  ON  REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOT. (Cont. pages)
	21. MAIL INVOICE TO:						
	a. NAME <b>Same as Block 5</b>						
b. STREET ADDRESS (or P.O. Box)						17(i) GRAND TOTAL	
c. CITY		d. STATE	e. ZIP CODE				

22. UNITED STATES OF AMERICA BY (Signature)	23. NAME (Typed)
---	------------------

TITLE: CONTRACTING/ORDERING OFFICER

**I. TITLE OF EFFORT: ISS Safety and Mission Assurance**

**II. TASK DESCRIPTION:**

The Contractor shall provide safety and mission assurance management and administration including mission assurance and risk management, quality management audit and surveillance, safety and health, IP S&MA integration, Program risk assessment, safety, quality assurance and operations safety. The Contractor shall propose to the tasks as described in the PI&C Contract Section C, Statement of Work, for the SOW items listed below. Specific workload indicators, quantities, and schedules are provided to scope the magnitude of the required tasks.

**III. STATEMENT OF WORK REFERENCE: 6.0 Safety and Mission Assurance**

**IV. REQUIREMENTS / DELIVERABLES / SCHEDULE:**

SOW	Performance Requirement	Workload Indicators	Quantity	Schedule	DRDs
6.0	SAFETY AND MISSION ASSURANCE (S&MA)				
6.1	S&MA Management And Administration				
6.1.1	Mission Assurance and Risk Management Plan	Update Mission Assurance and Risk Management (MA&RM) Plan	See DRD	Yearly	PIC-SA-01
6.1.2	Quality Management System	Develop and implement a QMS compliant with AS9100, including documentation control, corrective action system, development of PI&C Quality Management Plan, work instructions and process flows, quality record systems, etc.	See DRD	Ongoing	PIC-SA-01
6.1.3	Audit/Surveillance	Documentation of audit meetings lasting 8 hours, response to audit/surveillance findings and action tracking	1 audit	Yearly	
6.1.4	Safety and Health	1. Update Safety and Health Plan. "	One update	Yearly	PIC-SA-02
		2. Provide Monthly Safety and Health Metrics.	12 metrics packages	1 per month	PIC-SA-03
		3. Submit Annual Safety and Health Self Evaluation Report.	One update	Yearly	PIC-SA-04
		4. Participate in NASA close call and mishap reporting system.	as required	Ongoing	
		5. Perform Safety Walkthroughs.	12 walkthroughs	1 per month	



SOW	Performance Requirement	Workload Indicators	Quantity	Schedule	DRDs
		6. Provide Management of call tree and fire wardens.	Initial: once Updates: As changes occur in personnel	At contract start	
6.1.5	Lessons Learned	Initial Submission of Plan	1	90 days after contract start	PIC-SA-08
		Monthly Meeting(s) and Status Reports	12	Per year	
		Lessons Learned Plan Updates as needed	as required	Ongoing	
6.2	S&MA INTEGRATION				
6.2.1	Technical Integration	Provide S&MA support to the ISS IP/VV community.			
	Safety Reviews	1. Provide coordination and support of Safety Reviews, SRP, SRP splinter meetings, OSB reviews, resolution of SRP and WG issues and actions, evaluation of FMEA/CILs and R&M data, CoFR support to SMAP and SMARR.	30	per year	
	Technical Integration Meetings (TIMs), including chairmanship of selected teams	Participate in TIMs, including chairmanship of selected teams. Provide issue resolution and integration support.	4	per year	
	Milestone Reviews	Provide coordination and support of milestone reviews. Includes: PDR, CDR, QR, etc.; generation, tracking, and closure of RIDs. Facilitate S&MA reviews of IP subsystem and discipline data.	4	per year	
	ISSP Change Requests	Evaluate Technical Change Memorandums (TCMs), Change Requests (CRs), provide recommendations	12	per year	
	IP Requirements and Processes	Participate in the development of requirements and processes and negotiation with the IP/VV community. Participate in LPM, Tiger teams, joint telecons, videocons, etc. to develop requirements and processes. Review IP requirements verification data and determine compliance.	12	per year	

SOW	Performance Requirement	Workload Indicators	Quantity	Schedule	DRDs
	ISS working groups	Represent S&MA in working groups to support the development of CE documents, and to ensure CE documents are compliant with S&MA requirements.	8	per year	
	Weekly Telecons	Participate in and support weekly US/IP/VV telecons.	40	per year	6.2.1.7
	CoFR support	Provide CoFR related support to the SMAP and SMARR. Including presentations.	15	per year	6.2.1.8
	Document Updates	SSP 50191, NASA/ESA Bilateral S&PA Requirements		1 every 2 years	
		JPD 315, Limited Life Item Tracking and Control		1 every 2 years	
6.2.2	IP/Visiting Vehicle Integration	Provide telecon and TIM support for JARSWG and other IP/VV working groups/meetings			
		1. Book coordination for SSP 50146		1 every 2 years	
		2. Prepare Agendas and minutes for JARSWG telecons.	40	per year	
		3. Prepare agenda and protocols for IP TIMs	2 IP TIMS (1 in Moscow and 1 in Houston)	2 per year	
		4. Provide administrative coordination for SRP, PSRP, and MS&MAP Meetings. Coordinate letter of invitation, logistics, and interpreters.	2 TIMs per year 2 SRPs per year	4 per year	
		5. Coordinate translation support from TTI for all Russian faxes.	200 Russian faxes	4 faxes per week	
		6. Maintain archive folders for all JARSWG/IP received and sent correspondence.	1000 translations	20 weekly	
		7. Unplanned Management Requests	~2 hours per week	~80 hours per year	
		8. Administrative Duties	Yearly training	1 per year	
6.2.3	Document Maintenance	SSP 50191, NASA/ESA Bilateral S&PA Requirements		1 every 2 years	
6.3	PROGRAM RISK MANAGEMENT				

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
6.3.1	Management of Risk Process	Provide specialized risk management process facilitation to the ISS Program community. Coordinate ISS risk in support of the PRAB and CoFR by reviewing team inputs, resolving discrepancies, and preparing metrics and charts for the PRAB and CoFR. Additional emphasis will be given to the Program S&MA internal risk process. Provide tailored training for improvement. Ensure that the risk management process is consistent with program risk management requirements.			
	Book Updates for JPD 306 and NPR 8000.4 Risk Management Procedures and Guidelines	Establishment of the Program Risk Management System (PRMS) and SSP 50175, ISS Risk Management Plan. Review and provide inputs to NPR 8000.4 Risk Management Procedures and Guidelines	1 Update	every 2 years	
	Provide risk management support across the program	Facilitate general risk management across the program; assist organizations with identification of risks, and completion of their risk assessment	3 hrs per week	per week	
	CoFR Document	Provide Inputs to the CoFR document in the Risk Management Section	1	every 2 years	
	Risk Management Training	Provide training for consistent implementation of risk management principle across the ISS community.	4 Classes; 40 one-on-one training sessions	per year	
	Risk Facilitation - PRAB	Coordinate ISS risks in support of the PRAB by reviewing team inputs, resolving discrepancies, and preparing metrics and charts for the PRAB.	6 PRABs	1 every 2 months	
	ISS Risk Management Working Group Meetings	Support and participate in ISS Risk Management Working Group Meetings.	12 meetings	1 per month	

<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
	Integrated Risk Management Activities	Coordinate risk integration and transfer with and provide support to Integrated Risk Management activities.	6	per month	
	Integrated Risk Product Activities	Develop, coordinate and support integration of ISS qualitative and quantitative risk analysis within ISS Program Office.	6	per month	
	Manage IRMA enhancements and requirements	Identify, track and integrate IRMA enhancements/issues and requirements.	15	per month	
	Unplanned Management Activities	Support management requests that are not part of standard deliverables and processes.	12	per year	
	Risk Facilitation - CoFR/SORR	Coordinate ISS risks in support of CoFR/SORR by reviewing team inputs, resolving discrepancies, preparing risk data by flight, and ensuring complete risk acceptance rationale for CoFR/SORR.	15 Flights per year	1 per flight	
6.3.2	Probabilistic Risk Assessment (PRA)	Perform PRA risk trade studies for the ISSP community. Develop and optimize ISS PRA models. Perform Bayesian update of ISS Program MADS data for ISS PRA failure database. Provide tailored training for improvement. Supporting working groups and tiger teams. Ensure that the PRA process is consistent with program risk management requirements. Incorporate uncertainty evaluation techniques. Integrate with existing reliability (PRA) modeling.	1 model, 1 Bayesian update, 12 trade studies	per year	
	Risk Trade Studies	As risk-related issues are identified within the ISS Program, PRA risk trade studies will provide information to permit better-informed decisions to be made by ISS Program management concerning these issues.	12 risk trades studies	per year	PIC-SA-05

SOW	Performance Requirement	Workload Indicators	Quantity	Schedule	DRDs
	Develop PRA models	Update existing ISS stage PRA model; complete internal documentation of PRA model; perform Bayesian update of MADS data for ISS PRA failure database	1 model; 1 Bayesian update	per year	PIC-SA-05
	Prepare reports	Generate presentations on ISS PRA activities for dissemination of information outside of ISS S&MA; Complete subsystem notebooks documentation for 10A PRA model; Develop integration and results reports.	3 presentations; 1 set 15A notebooks; 2 PRA reports	per year	PIC-SA-05
	Working groups and Tiger Teams	1. Support ISS PRA working groups and tiger teams. Assist project planning, budgeting, and expenditure tracking; prepare weekly status reports; Conduct briefings to NASA customer, including monthly status; Support and participate in tiger team meetings for PRA of Bioastronautics Risk (BR).	48 tag-ups 4 project planning and budgeting exercises 4 briefings 12 (monthly) status briefings 40 meetings	per year	
	Develop PRA methodologies	Methodologies for modeling HRA (Human Reliability and Common Cause) will be incorporated into the PRA model.	1 methodology development	per year	
	PRA data development	Develop data consistent with MADS database	1 file	per year	PIC-SA-05
	Develop additional PRA system models	Develop PRA system models for the CEV, COTS	9 system PRA models	per year	PIC-SA-05
6.3.3	Document Maintenance	The Contractor shall provide book coordination functions for the following ISS Program S&MA documents: <ul style="list-style-type: none"> <li>JPD 306, Establishment of the Program Risk Management System (PRMS)</li> <li>SSP 50175, ISS Risk Management Plan</li> </ul>		1 every 2 years	

SOW	Performance Requirement	Workload Indicators	Quantity	Schedule	DRDs
6.4	ISS SAFETY PROGRAM	Perform hazard analyses and close VTLs for assembly complete hazard reports; Stowage Hazard Report ISS-STO-801, Internal Volume Hazard Report ISS-IVA-0202, Drag Through Hazard Report ISS-NTN-001	15 flights	3 HR VTLs/closures per flight	PIC-SA-07
	COFR	Provide support for CoFR; including presentation development, administrative support, and status integration. Document maintenance.	15 flights per year	1 per flight	
6.5	RESERVED				
6.6	QUALITY ASSURANCE				
6.6.1	Problem Reporting System Maintenance	Maintain the ISS PRACA Database System. Implement and maintain an improved PDS. Provide support to QA personnel and SPRTs during PR resolution/closure process			
	PR resolution/closure process	Provide support to QA personnel and SPRTs during PR resolution/closure process through daily PR review and updates. Participate in bi-weekly QA working group meetings and weekly SPRT meetings	70 meetings; daily review/update	per year	
	PDS System	PDS Upgrade: compile list of requested enhancements from users, prioritize with OE Quality Manager and coordinate implementation with ARES PI&C IT SW group. At a minimum, includes flexible signature functionality, new CoFR report, and additional metrics reports. May include proprietary data directory structure to accommodate IP processing of PRs..	4 releases	per year	
	Administrative support to the PDS system	Provide user support, training, custom queries/reports	8	per year	
	PRACA Metrics development	Develop meaningful metrics for CoFR and process management.	2	per year	

SOW	Performance Requirement	Workload Indicators	Quantity	Schedule	DRDs
	Evaluation/test of Cx PRACA prototype	Test administrative functions and search capabilities once ISS data is imported; Evaluate potential for use as a replacement for ISS PDS	4	per year	
6.6.3	Document Maintenance	<p>The Contractor shall provide book coordination functions for the following ISS Program S&amp;MA documents:</p> <ul style="list-style-type: none"> <li>• JPD 328, ISS Corrective Action Plan/Preventive Action Process</li> <li>• JPD 315, Limited Life Item (LLI) Tracking and Control</li> <li>• SSP 30223, Problem Reporting and Corrective Action (PRACA) for Space Station Program</li> <li>• SSP 30524, Problem Reporting and Corrective Action (PRACA) – Data System (PDS) Requirements Definition Document (RDD) for ISS Program</li> <li>• SSP 30695, Acceptance Data Package Requirements Specification</li> <li>• SSP 41173, Space Station Quality Assurance Requirements</li> <li>• SSP 50190, ISS Program Contingency Action Plan</li> <li>• SSP 50200-01-ANX E, Station Program Implementation Plan Volume 1, Station Program Management Plan, Annex E: S&amp;MA/Program Risk Plan; ISS Risk Management Plan</li> <li>• SSP 50287, Hardware/Software Acceptance Process</li> </ul>		1 every 2 years	

SOW	Performance Requirement	Workload Indicators	Quantity	Schedule	DRDs
6.7	OPERATIONS SAFETY	<p>Represent S&amp;MA at strategic and tactical planning meetings including launch package teams (LPT), stowage integration working group (SIWG), internal volume configuration working group (IVCWG), and the Assembly Working Group (AWG) meetings. Evaluate products for those teams and provide an S&amp;MA status or S&amp;MA position when required. Evaluate change requests relating to these areas and present recommendations to the S&amp;MA change panel. Attend Daily Space Station Reviews (DSSR) and SSPCBs, as required to support management, LPTs, and to perform pre-flight tactical integration responsibilities. Participate and present at Mission Integration Office (MIO) and Safety and Mission Assurance (S&amp;MA) milestone reviews or technical interchange meetings when required, including daily participation in the open paper tracking for each flight. Conduct issue resolution conferences and participate in special teams as necessary. Provide technical briefings or status to S&amp;MA management upon request</p>			
6.7.1	Documentation Verification	<p>Evaluate, monitor, and respond to the S&amp;MA Manifest Priorities List for each flight (PBMA); Assess all line items on the flight manifest to determine status of safety and reliability certification/readiness; track flight open paper</p>	84 manifest drops	6 manifest drops per flight (14) and as required for unplanned on-orbit activities	



<b>SOW</b>	<b>Performance Requirement</b>	<b>Workload Indicators</b>	<b>Quantity</b>	<b>Schedule</b>	<b>DRDs</b>
6.7.2	Mission Integration and Operations Planning	Stowage Flight Readiness Activities - generate Stowage 1-pagers for every flight in support of SMSRs, while evaluating the stowage OC risk acceptance rationale and the OC stowage CoFR presentations.	5 per flight	per flight, 15 flights	
	DSSR Representation	Review agenda and prepare for topics; work actions and requests for information. Coordinate information with S&MA teams. Work special assignments as requested by OE customer.	30	per year	6.7.6
6.7.4	Launch Package Management Team	Provide LPM the S&MA related requirements. Attend LPM meetings, evaluate flight plans and objectives, and provide meeting notes to S&MA team members	40	Per year	
6.7.5	CR Evaluation	Coordinate and facilitate S&MA review of change requests:	30	per year	

SOW	Performance Requirement	Workload Indicators	Quantity	Schedule	DRDs
6.7.6	Document Maintenance	<p>The Contractor shall provide book coordination functions which include preparation, distribution, and processing for the following ISS Program S&amp;MA documents:</p> <ul style="list-style-type: none"> <li>• SSP 30234, Failure Modes and Effects Analysis and Critical Items List (FMEA/CIL) Requirements for Space Station</li> <li>• SSP 30309, Safety Analysis and Risk Assessment Requirements Document</li> <li>• SSP 30599, Safety Review Process</li> <li>• SSP 50021, Safety Requirements Document</li> <li>• SSP 50038, Computer-Based Control System Safety Requirements</li> <li>• SSP 50145, NASA/NASDA Bilateral S&amp;MA Requirements</li> <li>• SSP 50231, Safety and Mission Assurance Certification of Flight Readiness Implementation Plan</li> </ul>		1 every 2 years	

**V. PERIOD OF PERFORMANCE:** October 1, 2009- September 30, 2010

**VI. TRAVEL REQUIREMENTS:**

**VII. ESTIMATED PRICE BREAKOUT:**

# ORDER FOR SUPPLIES OR SERVICES

PAGE 1 OF 3 PAGES 3

**IMPORTANT: Mark all packages and papers with contract and/or order numbers.**

1. DATE OF ORDER <b>TBD</b>		2. CONTRACT NO. (If any) <b>NNJ09 C</b>		6. SHIP TO:		
3. ORDER NO. <b>Task Order #6</b>		4. REQUISITION/REFERENCE NO. <b>N/A</b>		a. NAME OF CONSIGNEE <b>Transportation Officer, Building 421, NASA-JSC</b>		
5. ISSUING OFFICE (Address correspondence to) <b>BG/Andrea R. Falls, Contracting Officer</b>				b. STREET ADDRESS <b>2101 NASA Parkway</b>		
7. TO: <b>TBD</b>				c. CITY <b>Houston</b>	d. STATE <b>TX</b>	e. ZIP CODE <b>77054</b>
a. NAME OF CONTRACTOR <b>TBD</b>				f. SHIP VIA		
b. COMPANY NAME <b>TBD</b>				8. TYPE OF ORDER		
c. STREET ADDRESS <b>TBD</b>				<input type="checkbox"/> a. PURCHASE REFERENCE YOUR: _____ Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.		<input checked="" type="checkbox"/> b. DELIVERY -- Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.
d. CITY <b>TBD</b>	e. STATE <b>TBD</b>	f. ZIP CODE <b>TBD</b>				
9. ACCOUNTING AND APPROPRIATION DATA <b>N/A</b>				10. REQUISITIONING OFFICE <b>ISS Program Office, OM</b>		

11. BUSINESS CLASSIFICATION (Check appropriate box(es))					12. F.O.B. POINT <b>DESTINATION</b>	
<input type="checkbox"/> a. SMALL	<input type="checkbox"/> b. OTHER THAN SMALL	<input type="checkbox"/> c. DISADVANTAGED	<input type="checkbox"/> g. SERVICE-DISABLED VETERAN-OWNED			
<input type="checkbox"/> d. WOMEN-OWNED	<input type="checkbox"/> e. HUBZone	<input type="checkbox"/> f. EMERGING SMALL BUSINESS				
13. PLACE OF			14. GOVERNMENT B/L NO.	15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)		16. DISCOUNT TERMS
a. INSPECTION <b>DESTINATION</b>	b. ACCEPTANCE <b>DESTINATION</b>			<b>TBD</b>		<b>TBD</b>

### 17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	<b>Task Order #6 – Management Integration and Control - ISS Program Budget Support and Assessments</b>					
	Estimated Labor	XXX	hrs.		\$XXXXX.XX	
	Travel				\$XXX.XX	
	Materials				\$XXXXX.XX	

SEE BILLING  INSTRUCTIONS  ON  REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT	20. INVOICE NO.		17(h) TOT. (Cont. pages)
	21. MAIL INVOICE TO:					
	a. NAME <b>Same as Block 5</b>					
b. STREET ADDRESS (or P.O. Box)					\$XXXXXXXX.XX	17(i) GRAND TOTAL
c. CITY			d. STATE	e. ZIP CODE		

22. UNITED STATES OF AMERICA BY (Signature)	23. NAME (Typed)
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TITLE: CONTRACTING/ORDERING OFFICER

**I. TITLE OF EFFORT:** ISS Program Budget Support/ Assessments

**II. TASK DESCRIPTION:**

The Contractor shall provide budget and assessment support as described in the PI&C Contract Section C, Statement of Work, for the SOW tasks listed below.

**III. STATEMENT OF WORK REFERENCE:** 1.2.4 ISS Program Budget Support /Assessments

**IV. REQUIREMENTS / DELIVERABLES / SCHEDULE:**

#### **1.2.4.1 ISS Program Budget Database Support**

The Contractor shall utilize the Space Program Integrated Contract Environment (SPICE) and the Integrated Financial Management (IFM) databases to accomplish the following as primary functions:

- (a) The Contractor shall maintain the ISS Program budget database to include tracking of all approved changes.
- (b) The Contractor shall maintain tracking of all approved purchase requests for the ISS Program Office.
- (c) The Contractor shall maintain tracking of funding requirements for the ISS Program Office.
- (d) The Contractor shall support the Contract Resource Analyst and the Contracting Officer's Technical Representative (COTR) with data analysis and presentations, as required.

Integrated Financial Management (IFM) databases to accomplish the following as backup functions:

- (a) The Contractor shall answer queries from Central Budget Office (CBO), CO, NASA Program Planning and Control (PP&C) managers and resource analysts and provide reports.
- (b) The Contractor shall track monthly cost actuals in IFM database.

#### **1.2.4.2 ISS Program Reserves/Changes Management Database Support**

The Contractor shall use the SPICE and the Integrated Risk Management Application (IRMA) database to accomplish the following:

- (a) The Contractor shall maintain the data in the ISS Program Reserves/Changes Management database to include tracking of all changes,
- (b) The Contractor shall answer queries from NASA business managers and Resource analysts and provide reports.
- (c) The Contractor shall provide ad-hoc product support to the Resources Management Office.

- (d) The Contractor shall answer queries from NASA PP&C managers and Resource analysts and provide reports.

#### **1.2.4.3 Assessments and Cost Estimating Support**

The Contractor shall support the ISSP Assessments, Cost Estimating, and Schedules (ACES) Office in integrating content and formats of all assessments and analyses prior to delivery of all final ACES products.

- (a) The Contractor shall support the ACES Office in integrating data from ISS contractor status, cost, and earned value reports to assess ISSP performance. These assessments will be used by the ACES Office for the development of overall ISSP analyses and status.
- (b) The Contractor shall support the ACES Office in performing and integrating ad hoc parametric cost estimates, including but not limited to the preparation and documentation of individual cost estimates, the technical evaluation of Contractor proposals, and the integration of component estimates to produce consolidated estimates and associated reports.
- (c) The Contractor shall support the ACES Office in the maintenance of analytic models associated with the development of parametric cost estimates and related assessments.

**V. PERIOD OF PERFORMANCE:** October 1, 2009- September 30, 2010

**VI. TRAVEL REQUIREMENTS:**

**VII. ESTIMATED PRICE BREAKOUT:**

# ORDER FOR SUPPLIES OR SERVICES

**IMPORTANT: Mark all packages and papers with contract and/or order numbers.**

1. DATE OF ORDER <b>TBD</b>		2. CONTRACT NO. (If any) <b>NNJ09 C</b>		6. SHIP TO:		
3. ORDER NO. <b>Task Order #7</b>		4. REQUISITION/REFERENCE NO. <b>N/A</b>		a. NAME OF CONSIGNEE <b>Transportation Officer, Building 421, NASA-JSC</b>		
5. ISSUING OFFICE (Address correspondence to) <b>BG/Andrea R. Falls, Contracting Officer</b>				b. STREET ADDRESS <b>2101 NASA Parkway</b>		
7. TO: <b>TBD</b>				c. CITY <b>Houston</b>	d. STATE <b>TX</b>	e. ZIP CODE <b>77054</b>
a. NAME OF CONTRACTOR <b>TBD</b>				f. SHIP VIA		
b. COMPANY NAME <b>TBD</b>				8. TYPE OF ORDER		
c. STREET ADDRESS <b>TBD</b>				<input type="checkbox"/> a. PURCHASE REFERENCE YOUR: _____ Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.		<input checked="" type="checkbox"/> b. DELIVERY -- Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.
d. CITY <b>TBD</b>	e. STATE <b>TBD</b>	f. ZIP CODE <b>TBD</b>				
9. ACCOUNTING AND APPROPRIATION DATA <b>N/A</b>				10. REQUISITIONING OFFICE <b>ISS Program Office, ON</b>		

11. BUSINESS CLASSIFICATION (Check appropriate box(es))						12. F.O.B. POINT <b>DESTINATION</b>	
<input type="checkbox"/> a. SMALL	<input type="checkbox"/> b. OTHER THAN SMALL	<input type="checkbox"/> c. DISADVANTAGED	<input type="checkbox"/> g. SERVICE-DISABLED VETERAN-OWNED				
<input type="checkbox"/> d. WOMEN-OWNED	<input type="checkbox"/> e. HUBZone	<input type="checkbox"/> f. EMERGING SMALL BUSINESS					
13. PLACE OF			14. GOVERNMENT B/L NO.	15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)		16. DISCOUNT TERMS	
a. INSPECTION <b>DESTINATION</b>	b. ACCEPTANCE <b>DESTINATION</b>			<b>TBD</b>		<b>TBD</b>	

### 17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	<b>Task Order #7 – VISITING VEHICLE - COTS Integration Support</b>					
	Estimated Labor					
	Travel	XXX	hrs.		\$XXXXX.XX	
	Materials				\$XXX.XX	
					\$XXXXX.XX	

SEE BILLING  INSTRUCTIONS  ON  REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOT. (Cont. pages)
	21. MAIL INVOICE TO:						
	a. NAME <b>Same as Block 5</b>						17(i) GRAND TOTAL
b. STREET ADDRESS (or P.O. Box)							
c. CITY			d. STATE	e. ZIP CODE		\$XXXXXXXX.XX	

22. UNITED STATES OF AMERICA BY (Signature)	23. NAME (Typed)
---	------------------

TITLE: CONTRACTING/ORDERING OFFICER

**I. TITLE OF EFFORT:** Mission Analysis and Integration – COTS Integration Support

**II. TASK DESCRIPTION:**

The Contractor shall provide technical support as described in the PI&C Contract Section C, Statement of Work, for the SOW tasks listed below.

**III. STATEMENT OF WORK REFERENCE:** 3.2 Visiting Vehicle

**IV. REQUIREMENTS / DELIVERABLES / SCHEDULE:**

The Contractor shall confirm that the visiting vehicles meet ISS Program requirements. The Contractor shall provide technical coordination for the visiting vehicle data and hardware and software exchange documents.

The Contractor shall perform the tasks identified below:

1. Coordinate Data Item Descriptions (DIDs) between the COTS projects and ISS Program.
2. Distribute COTS vehicle technical, programmatic and operations data for review by ISS Program technical teams and collect assessments and comments to this data from the teams.
3. Facilitate ISS Program teams' communications with SpaceX and Orbital Sciences.
4. Provide responses to communications and data requests from COTS and ISS Program teams in accordance with teams' schedules.
5. Coordinate shipment of items to and from the COTS projects with the ISS Program shipping coordinator in the Mission Integration Team.
6. Facilitate and coordinate the resolution of issues associated with integrating the COTS vehicles, as necessary, and report status of issues regularly to the NASA Element Manager.
7. Facilitate and coordinate the closure of action items associated with integrating the COTS vehicles, as necessary, and track and report status of all action items regularly to the NASA Element Manager.
8. Initiate or coordinate CRs to maintain and update the ISS design and requirements baseline for COTS Elements.
9. Support development, coordination and maintenance of the ISS Transportation Integration Office CoFR implementation plans, and COTS Element Acceptance and Assessment Review Plans.
10. Plan and coordinate the ISS Program teams' participation in the COTS design, qualification, and certification reviews.
  - i. Develop ISS Program Support Plans for Milestone Reviews.

- ii. Review COTS Design, Qualification and Certification Review data packages for compliance with ISS Program requirements and policies.
  - iii. Track and facilitate closure of issues and action items.
11. Provide consolidated Element team inputs to mission requirements, increment definition requirements, and manifest requirements for COTS flights.
  12. Coordinate the planning and implementation of COTS flight operations with ISS Program and COTS Operations teams, which includes review of the COTS operations documentation, such as operational timelines, procedures and flight rules

**V. PERIOD OF PERFORMANCE:** October 1, 2009- September 30, 2010

**VI. TRAVEL REQUIREMENTS:**

**VII. ESTIMATED PRICE BREAKOUT:**



# ORDER FOR SUPPLIES OR SERVICES

**IMPORTANT: Mark all packages and papers with contract and/or order numbers.**

1. DATE OF ORDER <b>TBD</b>		2. CONTRACT NO. (If any) <b>NNJ09 C</b>		6. SHIP TO:		
3. ORDER NO. <b>Task Order #8</b>		4. REQUISITION/REFERENCE NO. <b>N/A</b>		a. NAME OF CONSIGNEE <b>Transportation Officer, Building 421, NASA-JSC</b>		
5. ISSUING OFFICE (Address correspondence to) <b>BG/Andrea R. Falls, Contracting Officer</b>				b. STREET ADDRESS <b>2101 NASA Parkway</b>		
7. TO: <b>TBD</b>				c. CITY <b>Houston</b>	d. STATE <b>TX</b>	e. ZIP CODE <b>77054</b>
a. NAME OF CONTRACTOR <b>TBD</b>				f. SHIP VIA		
b. COMPANY NAME <b>TBD</b>				8. TYPE OF ORDER		
c. STREET ADDRESS <b>TBD</b>				<input type="checkbox"/> a. PURCHASE REFERENCE YOUR: _____ Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.		<input checked="" type="checkbox"/> b. DELIVERY -- Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.
d. CITY <b>TBD</b>	e. STATE <b>TBD</b>	f. ZIP CODE <b>TBD</b>				
9. ACCOUNTING AND APPROPRIATION DATA <b>N/A</b>				10. REQUISITIONING OFFICE <b>ISS Program Office, OB</b>		

11. BUSINESS CLASSIFICATION (Check appropriate box(es))					12. F.O.B. POINT <b>DESTINATION</b>	
<input type="checkbox"/> a. SMALL	<input type="checkbox"/> b. OTHER THAN SMALL	<input type="checkbox"/> c. DISADVANTAGED	<input type="checkbox"/> g. SERVICE-DISABLED VETERAN-OWNED			
<input type="checkbox"/> d. WOMEN-OWNED	<input type="checkbox"/> e. HUBZone	<input type="checkbox"/> f. EMERGING SMALL BUSINESS				
13. PLACE OF		14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)		16. DISCOUNT TERMS
a. INSPECTION <b>DESTINATION</b>	b. ACCEPTANCE <b>DESTINATION</b>			<b>TBD</b>		<b>TBD</b>

### 17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	<b>Task Order #8 – Engineering and Technical Services - Vehicle Integration</b>					
	Estimated Labor					
	Travel	XXX	hrs.		\$XXXXX.XX	
	Materials				\$XXX.XX	
					\$XXXXX.XX	

SEE BILLING  INSTRUCTIONS  ON  REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOT. (Cont. pages)
	21. MAIL INVOICE TO:						
	a. NAME <b>Same as Block 5</b>						17(i) GRAND TOTAL
b. STREET ADDRESS (or P.O. Box)							
c. CITY			d. STATE	e. ZIP CODE		\$XXXXXXXX.XX	

22. UNITED STATES OF AMERICA BY (Signature)	23. NAME (Typed)
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TITLE: CONTRACTING/ORDERING OFFICER

**I. TITLE OF EFFORT:** Engineering and Technical Services

**II. TASK DESCRIPTION:**

The Contractor shall provide technical support as described in the PI&C Contract Section C, Statement of Work, for the SOW tasks listed below.

**III. STATEMENT OF WORK REFERENCE:** SOW 3.1.1.1 Engineering and Technical Services

**IV. REQUIREMENTS / DELIVERABLES / SCHEDULE:**

#### **4.1 Office Web Support**

The Contractor shall maintain the OB-owned web pages by soliciting and implementing revisions from content owners. The Contractor shall provide a point of contact for interfacing with the ISS web development team for updates to the design of OB-owned web pages.

#### **4.2 On-Orbit Engineering Office Support**

The Contractor shall support the teams and meetings of the ISS Mission Evaluation Room (MER). The primary task is to develop meeting minutes for the ISS MER anomaly resolution meetings. During Shuttle missions, this support could result in the need for round the clock staffing. Individual Shuttle mission support requirements will be coordinated in advance with the On-Orbit Engineering Office.

The Contractor shall perform the tasks identified below in support of the On-Orbit Engineering Office:

- a. Develop and distribute minutes of the MER anomaly resolution meetings.
- b. Develop and distribute MER Daily Notes.
- c. Develop and distribute minutes from the daily tagup meetings with the subsystem teams.
- d. Support planning meetings.
- e. Assist with Work Instruction development and revisions.
- f. Assist with engineering report development.

#### **4.3 Vehicle Integration Office Support**

The Contractor shall perform the tasks identified below in support of the Vehicle Integration Office.

##### **4.3.1 Engineering Services**

The Contractor shall support the Vehicle Office by coordinating or leading the resolution of Vehicle system and system integration issues. This task includes representing the Vehicle Office in ISS decision forums, and providing oversight of preparation of flight products. The Contractor shall perform the tasks identified below:

- a. Coordinate or lead the resolution of Vehicle system integration issues through participation in issue resolution meetings or teleconferences, review or preparation of presentation material for ISS

Program management, and communication of status and recommendations from the issue resolution team to the Program.

- b. Represent the Vehicle Office in ISS boards, panels, and working groups. Coordinate with appropriate technical teams and management the technical and resource position of the Vehicle Office as it relates to topics represented at these forums.
- c. Support design and integration reviews or audits to identify issues with hardware under development as it relates to impacts to the Vehicle hardware. Coordinate or lead resolution of identified issues.

#### **4.3.2 Project Management**

The Contractor shall perform project management, project engineer, and integration tasks associated with ISS systems development and sustaining efforts. This task will include serving as the facilitator and focal point for issues and concerns relating to the assigned systems integration tasks. The Contractor shall support the tasks identified below:

- a. Evaluate, negotiate, and document requirements between hardware provider and ISS requirement stakeholders.
- b. Evaluate and track hardware development issues and schedules with the provider.
- c. Evaluate development designs through the Systems Requirements Review (SRR), Preliminary Design Review (PDR), Critical Design Review (CDR), and System Acceptance Review (SAR) process.
- d. Monitor, track and negotiate changes to system work plans, schedules and cost within delegated authority.
- e. Identify and assess threats to key milestones completion and corresponding program impacts.
- f. Represent the Vehicle Office for assigned development projects and systems integration tasks at ISS reviews and meetings and present results of impact assessments.
- g. Prepare Interdivisional Technical Agreement (ITA) status report addressing technical, cost and schedule issues associated risks.
- h. Negotiate and resolve issues for projects that cross multiple ISS systems.

#### **4.3.3 Schedule Analysis**

The Contractor shall assist with the coordination of schedules, metrics, and risks associated with vehicle systems. The tools used should be available to all team members. The Contractor will work one-on-one with system managers and their teams and should be able to identify where there are gaps in existing scheduling functions and develop tools to bridge those planning gaps. The Contractor shall:

- a. Discern key project and sustaining task milestones from system manager planning and major meetings.
- b. Develop and maintain system work flow plans and schedules.
- c. Incorporate individual project schedules into an integrated system management schedule.

#### **4.3.4 Element Integration Support**

The Contractor shall provide element integration support for assigned ISS elements and visiting vehicles. The Contractor shall perform the tasks identified below:

- a. Evaluate change requests for applicability and impact to the elements managed by the Element Integration Team. Perform impact assessments of the change requests against baselined requirements and identify potential impacts to affected subsystems.
- b. Support the verification and NASA acceptance of assigned Elements and visiting vehicles.
- c. Coordinate the OMRSD process for assigned Elements and end items.
- d. Provide leadership for the closure of requirements for flight through the CoFR process, assessing the status for a given flight and coordinating with the responsible technical teams to ensure closure of all issues.

#### **4.3.5 OMRSD**

The Contractor shall coordinate the OMRSD process for assigned elements and input the OMRSs into the system. The Contractor shall provide support to the subsystems when entering requirements into the system. The Contractor shall identify all mandatory evaluators, schedule required meetings, track the evaluations and action items dispositions and consolidate the ISS inputs.

#### **4.3.6 Integrated Test and Verification**

The Contractor shall perform test and verification analysis by providing assessments and recommendations regarding environmental testing of hardware items and assemblies. The contractor shall review test reports and procedures, Space Station Operations Data Book (SSODB) short sheets, and hardware certification records to ensure the certification records are accurate and complete. The contractor shall represent the Vehicle Office in Program forums and lead resolution of certification and assigned test and verification issues. In addition, the contractor shall perform the tasks identified below:

- a. Manage the development, coordination and approval of Bilateral Verification Plans between NASA and the International Partners.
- b. Review and provide recommendations on the verification approaches and Verification Logic proposed by the hardware provider(s).
- c. Assess and provide recommendations on proposed verification and risk mitigation tests performed at KSC.
- d. Review test planning documents and provide recommendations on the criticality and classification of the proposed test objectives and requirements for risk mitigation tests.
- e. Review and provide recommendation to hardware provider proposals for test requirements, test procedures, test readiness review, test discrepancies and final test reports.
- f. Review and comment on ISS Program change request related to the test and verification area.
- g. Represent the test and verification team during the Multi Element Integrated testing (MEIT), Integrated Systems Test (IST), and Hardware Software Integrated Test (HSI). The contractor shall

have the technical expertise required and be able to make on-the-spot decisions regarding test discrepancies and configuration variances.

- h. Review test reports and procedures for vehicle hardware items and integrated tests to understand the demonstrated capability and limitations of the hardware.
- i. Review ISS hardware certification records for accuracy and completeness as demonstrated by test, analysis, or exception/waiver.
- j. Represent the Vehicle Office as Core team lead for SSODB short sheet review and approval.
- k. Coordinate with multiple disciplines to understand certification issues and communicate them to Vehicle Office Management.

#### **4.3.7 Technical Integration Support**

The Contractor shall provide technical integration support including verification and the sell-off of the International Partner (IP/Participant) hardware via verification Closure Notices/Qualification Reviews or equivalents, acceptance reviews and CoFR. The Contractor shall perform the following tasks:

- a. Conduct Functional Configuration Audit (FCA) or equivalent pre-audit checklist reviews at review minus (R-60) and review minus fourteen (R-14) day review readiness assessments and daily audit status reviews for the assigned USOS and IP/P elements. Checklists and reviews shall be conducted in accordance with the FCA process. Each element will have the FCA process tailored based on needs and agreements.
  - i. Prepare audit readiness recommendations for the NASA element integration manager.
  - ii. Gather materials required for review documentation in the form of notebooks that will aid each individual team to close out their verification activities.
  - iii. Input and Maintain data in program-supported tracking database.
  - iv. Participate in the preparation of in-briefs and out-briefs for program management.
  - vi. Aid in the facilitation and implementation of review process.
- b. Provide process definition and documentation for the conduct of Qualification (or equivalent) and Acceptance review meetings for assigned USOS, IP/P Elements. Tailor processes used for US ISS Pressurized and Unpressurized Element reviews to those to be used for IP/P elements. Customize process flows for each element based on lessons learned, complexity of element systems, needs and international agreements.
- c. Investigate and report status of all open NASA action items and Verification Closure Notices (VCNs) via the Open Paper Management Tool (OPMT) for assigned USOS, IP, and IP/P Elements through the following review processes: Qualification Reviews or equivalents, pre-ARB, ARB and CoFR. Provide a summary report of open items for each scheduled review. Conduct daily status meetings during reviews to ensure consistent processes are being implemented. Document issues as action items into OPMT.
- d. Coordinate the OMRSD process for assigned Elements and input the OMRs into the system. Provide support to the subsystems when entering the requirements into the system. Identify all

mandatory evaluators, schedule required meetings, track the evaluations and action item dispositions, and consolidate the ISS inputs.

- e. Support the Test and Verification (T&V) element manager in the coordinating the ISS subsystems review of changes and requirements related to the test and verification area. The contractor shall coordinate and schedule the meeting and teleconference required to support T&V issue resolution and requirements reviews.
- f. Develop and maintain the distribution list for the specific element T&V team. The contractor shall generate, distribute, and maintain T&V meeting agendas and minutes.
- g. Coordinate the OMRSD process and review for the T&V items. Identify all mandatory evaluators, schedule required meetings, track the evaluations and action items dispositions, and consolidate the ISS inputs.
- h. Support the T&V element manager in the review and closure of the element specific VCNs.
- i. Track Space Station Operations Data Book (SSODB) short sheet and hardware certification records.

#### **4.3.8 Cable and Fluid Constraint Verification**

The Contractor shall provide verification of ISS fluid line and electrical cable on-orbit constraints. The contractor shall perform the tasks identified below:

- a. Define and implement on-orbit constraints testing necessary to complete ISS line/cable verifications for USOS and IP/P elements and participate in test planning and performance assessments.
- b. Provide closure of requirements for flight through the COFR process.
- c. Review VCNs for the ISS line/cable on-orbit constraints and provide recommendations to the Vehicle Office management and coordinate issues and open work with the responsible technical teams.
- d. Coordinate the resolution of Vehicle line/cable on-orbit constraints issues through participation in issue resolution meetings or teleconferences, review or preparation of presentation material for ISS Program management, and communication of status and recommendations from the issue resolution team to the Program.

#### **4.3.9 Resolution of Leak Test Issues**

The Contractor shall coordinate the resolution of leak test issues. This task includes representing the Vehicle Office in ISS decision forums, and providing oversight of preparation of flight products. The Contractor shall perform the following tasks:

- a. Support the Test and Verification Team in the definition of ISS unique leak test requirements for the parts (e.g. QD, seal), subcomponents (e.g. flex hoses, tanks, pumps), systems (e.g. thermal control systems, ECLSS), and Elements (e.g. Node 2, Node 3, CAM).
- b. Define the acceptable test methods for leak testing, and review and concur with the test objectives and minimum configuration.

- c. Represent the T&V team at QD SPRT meetings.
- d. Manage the development, coordination and approval of Bilateral Verification Plans between NASA and the International Partners.
- e. Provide assessments and recommendations regarding proposed Element leak tests performed at KSC.
- f. Review test planning documents and provide recommendations on the criticality and classification of the proposed test objectives and requirements for risk mitigation tests.
- g. Review and provide recommendation to hardware provider proposals for: test requirements, test procedures, test readiness review, test discrepancies and final test reports.

#### **4.4 Hardware Projects Office Support**

The Contractor shall integrate assigned hardware projects. The contractor shall coordinate the resolution of integration issues. This task includes representing the Vehicle Office in ISS decision forums, and providing oversight of the preparation of flight products. The Contractor shall perform the following tasks:

- a. Coordinate or lead the resolution of integration issues with stakeholders through participation in meetings, teleconferences, reviews, and other communications.
- b. Communicate status and recommendation to the Vehicle Office and to ISS Management.
- c. Participate in overall ISS Hardware Projects Office policy, schedule, and budget development.
- d. Represent the Hardware projects Office in ISS boards, panels, and working groups at JSC, other NASA Centers, and to International Partner forums. Coordinate the technical and resource position of the Vehicle Office with appropriate technical teams and management.
- e. Support design, development, and integration reviews to identify issues with hardware under development as it relates to impacts to Vehicle hardware and goals. Coordinate resolution of identified issues.

#### **4.5 Logistics and Maintenance Office**

4.5.1 The Contractor shall support the teams and meetings of the Logistics and Maintenance Office of the Vehicle Office. Tasks shall include support to the Logistics and Maintenance Control Panel, the Maintenance and Resupply Team, and the Logistics Engineering Operations Working Group. The Contractor shall perform the tasks identified below:

- a. Schedule meetings and telecoms for US and IP/P Logistics and Maintenance conferences. Conferences include weekly meetings on Logistics and Maintenance Integration, Logistics Engineering and On-Orbit Maintenance Operations.
- b. As needed, coordinate conference rooms, telecon numbers, distribution of presentation materials, and reproduction.

- c. Distribute agendas and other Logistics and Maintenance information and post information on web sites as needed.
- d. Track action items, develop minutes and protocols.

**4.6 Management Integration Office Support**

The Contractor shall serve as the Vehicle Office Point of Contact (POC) for CR evaluations, TCM notices and Directive closures. The Contractor shall perform the following tasks:

- a. Represent the Vehicle Office to the Configuration Management coordination reviews.
- b. Maintain a CR Mandatory Evaluation tracking system; maintain files on-line of all activity regarding CRs comments, EA evaluations and completions of CRs by the OB office. Maintain records and databases of CRs and other documentation for the Vehicle Office.
- c. Identify appropriate Vehicle evaluators, distribute evaluation packages for internal review, and monitor evaluation due dates.
- d. Consolidate all completed evaluations, comments and issues, submit them to Vehicle Management for approval and submit them to NASA and Boeing Change Management Receipt Desks.
- e. Provide regular status to the Vehicle Office Management regarding CR processing metrics.

**4.6.1 CoFR Process Support**

The Contractor shall coordinate the development and update of the Vehicle Offices' CoFR plans and processes. Specific tasks shall include the following:

- a. Assisting in the definition of and documentation of the Vehicle Office CoFR Implementation Plan.
- b. Coordinating and supporting the SORR development and presentation for the IP flights and USOS flights as necessary.

**4.7 Book Coordination Support**

The Contractor shall provide book coordination support to the Vehicle Office for the following documents:

<b>Document Number</b>	<b>Document Title</b>
SSP 50470	Crew Health Care System (CHeCS) Specification
SSP 50821	Requirements Specification for the International Space Station (ISS) Second Treadmill (T2)
SSP 50834	ISS Vehicle Office Management and Hardware Development Plan



**V. PERIOD OF PERFORMANCE:** October 1, 2009- September 30, 2010

**VI. TRAVEL REQUIREMENTS:**

**VII. ESTIMATED PRICE BREAKOUT:**

# ORDER FOR SUPPLIES OR SERVICES

PAGE 1 OF 4 PAGES 4

**IMPORTANT: Mark all packages and papers with contract and/or order numbers.**

1. DATE OF ORDER <b>TBD</b>		2. CONTRACT NO. (If any) <b>NNJ09 C</b>		6. SHIP TO:		
3. ORDER NO. <b>Task Order #9</b>		4. REQUISITION/REFERENCE NO. <b>N/A</b>		a. NAME OF CONSIGNEE <b>Transportation Officer, Building 421, NASA-JSC</b>		
5. ISSUING OFFICE (Address correspondence to) <b>BG/Andrea R. Falls, Contracting Officer</b>				b. STREET ADDRESS <b>2101 NASA Parkway</b>		
7. TO: <b>TBD</b>				c. CITY <b>Houston</b>	d. STATE <b>TX</b>	e. ZIP CODE <b>77054</b>
a. NAME OF CONTRACTOR <b>TBD</b>				f. SHIP VIA		
b. COMPANY NAME <b>TBD</b>				8. TYPE OF ORDER		
c. STREET ADDRESS <b>TBD</b>				<input type="checkbox"/> a. PURCHASE REFERENCE YOUR: _____ Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.		<input checked="" type="checkbox"/> b. DELIVERY -- Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.
d. CITY <b>TBD</b>	e. STATE <b>TBD</b>	f. ZIP CODE <b>TBD</b>				
9. ACCOUNTING AND APPROPRIATION DATA <b>N/A</b>				10. REQUISITIONING OFFICE <b>ISS Program Office, ON</b>		

11. BUSINESS CLASSIFICATION (Check appropriate box(es))						12. F.O.B. POINT <b>DESTINATION</b>	
<input type="checkbox"/> a. SMALL	<input type="checkbox"/> b. OTHER THAN SMALL	<input type="checkbox"/> c. DISADVANTAGED	<input type="checkbox"/> g. SERVICE-DISABLED VETERAN-OWNED				
<input type="checkbox"/> d. WOMEN-OWNED	<input type="checkbox"/> e. HUBZone	<input type="checkbox"/> f. EMERGING SMALL BUSINESS					
13. PLACE OF			14. GOVERNMENT B/L NO.	15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)		16. DISCOUNT TERMS	
a. INSPECTION <b>DESTINATION</b>	b. ACCEPTANCE <b>DESTINATION</b>			<b>TBD</b>		<b>TBD</b>	

### 17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	<b>Task Order #9 – INTERNATIONAL PARTNER (IP) ELEMENTS INTEGRATION MANAGEMENT SUPPORT</b>					
	Estimated Labor	XXX	hrs.		\$XXXXX.XX	
	Travel				\$XXX.XX	
	Materials				\$XXXXX.XX	

SEE BILLING  INSTRUCTIONS  ON  REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOT. (Cont. pages)
	21. MAIL INVOICE TO:						
	a. NAME <b>Same as Block 5</b>						
b. STREET ADDRESS (or P.O. Box)						17(i) GRAND TOTAL	
c. CITY		d. STATE	e. ZIP CODE				

22. UNITED STATES OF AMERICA BY (Signature) <span style="font-size: 2em; vertical-align: middle;">▶</span>	23. NAME (Typed)  TITLE: CONTRACTING/ORDERING OFFICER
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**I. TITLE OF EFFORT:** International Partner (IP) Elements Integration Management Support

**II. TASK DESCRIPTION:**

The Contractor shall provide technical support as described in the PI&C Contract Section C, Statement of Work, for the SOW tasks listed below.

**III. STATEMENT OF WORK REFERENCE:** 1.5 International Integration

**IV. REQUIREMENTS / DELIVERABLES / SCHEDULE:**

1.0 IP Elements Integration Management

Under contract SOW 1.5.3 IP Elements Integration Management, the Contractor shall perform the following tasks:

The Contractor shall provide technical support to the NASA IP Element Integration Manager (EIM) in managing and overseeing the tasks necessary to integrate the IP Elements into the ISS. 'IP Elements' are defined as: JEM, HTV, ATV, MSS, SPDM, MLM (including ERA), MRM1, MRM2, SM, DC1, Soyuz, and Progress. The scope of this support includes, but is not limited to:

- (a) Confirming the IP Elements meet their ISSP requirements
- (b) Confirming the IP Elements are ready for flight
- (c) Ensuring that NASA meets applicable ISS requirements associated with integrating the IP Elements
- (d) Ensuring that NASA and its contractors comply with relevant bilateral agreements.

The Contractor shall perform the tasks identified below in support of IP Element Integration Management. Additional tasks (not listed) may be required within the scope defined above.

1. Work with the Program Data Integration team, which provides the book coordination function, to facilitate the technical development, coordination with IPs, management approval, and implementation of the IP BDEALS documents.
2. Work with the Mission Integration team, which provides the book coordination function, to facilitate the technical development, coordination with IPs, management approval, and implementation of the IP BHSEALS documents.
3. Distribute Element technical, programmatic and operations data for review by ISS Program technical teams and collect assessments and comments to this data from the teams.
4. Facilitate ISS Program teams' communications with IPs and IP Contractors.
5. Provide responses to communications and data requests from IP and ISS Program teams in accordance with teams' schedules.

6. Coordinate shipment of items to and from the IPs with the ISS Program shipping coordinator in the Mission Integration team.
7. Facilitate and coordinate the resolution of issues associated with integrating the IP Elements, as necessary, and report status of issues regularly to the NASA EIM.
8. Facilitate and coordinate the closure of action items associated with integrating the IP Elements, as necessary, and track and report status of all action items regularly to the NASA EIM.
9. Initiate or coordinate CRs to maintain and update the ISS design and requirements baseline for IP Elements.
10. Support development, coordination and maintenance of the Program Integration office IP CoFR implementation plans, and IP Element Acceptance/Assessment Review Plans.
11. Plan and coordinate the ISS Program teams' participation in the IP design, qualification, certification, and pre-shipment reviews.
  - (i) Develop ISS Program Support Plans for IP Milestone Reviews.
  - (ii) Review IP Design, Qualification and Certification Review data packages for compliance with ISS Program requirements and policies.
  - (iii) Track and facilitate closure of issues and action items.
12. Coordinate IP EIM team support to ISS Program Milestone and Launch Package reviews in the ISS Mission Integration Template
13. Provide consolidated Element team inputs to mission requirements, increment definition requirements, and manifest requirements for IP Element flights.
14. Coordinate with KSC and IP regarding IP Element hardware processing in the SSPF, to provide programmatic coordination including review of integrated IP Element schedules, status of hardware processing, status of action items, and development and coordination of meeting agendas. After handover of the IP Element hardware to Shuttle Integration, support the Launch Package Management teams to coordinate element related processing issues.
15. Coordinate with ISS Program and IP Operations teams the planning and implementation of IP Elements flight operations, which includes participation in ISS Program SIRs and review of the IP Element operations documentation, such as operational timelines, procedures and flight rules.
16. Staff the ISS Increment Management Center and MER consoles during IP Elements' assembly flights, flights involving CSA robotics missions, and first-time IP visiting vehicle flights (e.g., HTV and ATV). Staff an ISS MER console on an as-needed basis after the initial IP assembly flights and first-time IP visiting vehicle flights.

## 2.0 Meeting and Documentation Support

Under contract SOW 3.1.1.1 Engineering and Technical Services and Program WBS 1.5.3 IP Elements Integration Management, the Contractor shall perform the following activities to provide the Element Integration Management Teams with meeting and documentation support.

1. Meeting Support is provided for:
  - (a) Technical Interchange Meetings
  - (b) Milestone Reviews,
    - (i) Preliminary Design Reviews
    - (ii) Critical Design Reviews
    - (iii) Qualification Reviews
    - (iv) Acceptance Reviews
  - (c) Element Integration Meetings
  - (d) Other meetings as necessary
2. Meeting support tasks include:
  - (a) Scheduling conference calls
  - (b) Producing design review plans
  - (c) Developing and maintaining agendas and calendar of events
  - (d) Preparing meeting minutes
  - (e) Compiling presentations and electronically distributing items to the appropriate team
  - (f) Tracking actions, issues, and Review Item Discrepancies (RIDs)
  - (g) Generating and maintaining travel lists
  - (h) Data entry and database management of RIDs for milestone reviews.
3. Documentation support tasks include:
  - (a) Documentation management
  - (b) Filing and archiving project-related documentation
  - (c) Photocopying meeting presentations and other documentation as necessary
  - (d) Formatting documentation

- (e) Converting documents from various formats to PDF files
- (f) Scanning hard copies into electronic format for posting on the internet
- (g) Distributing documentation to team members
- (h) Maintaining intranet sites and managing content
- (i) Posting project related documentation to the appropriate internet site
- (j) Serve as Curator of the Program Integration Office homepage
- (k) Coordinate all Program Integration Office web site curators
- (l) Develop and maintain the OM 1,2,3,4, & 7 web sites
- (m) Ensure all applicable OM web pages are registered and compliant with NASA standards

**V. PERIOD OF PERFORMANCE:** October 1, 2009- September 30, 2010

**VI. TRAVEL REQUIREMENTS:**

**VII. ESTIMATED PRICE BREAKOUT:**