

Task Order Plan (TOP)

Contract Number: NNM05AB50C
TO Title: *Imaging Team Engineering Support*
TO Number: 37-030102 **Revision:** 04

Period of Performance: 10/02/2010 to 09/30/2011

MSFC Initiator: *Jeremy Myers*

(b)(4)


Emergency: *No*

Revision 04: The purpose of this revision is to extend this task into Contract Year 6 of the NNM05AB50C ESTS contract. This revision defines and estimates work for the period October 2, 2010 through September 30, 2011. Additionally, the Schedule, Performance Plan and Risk Assessment have been revised to reflect changes in task activities for the new period of performance. Sub-element -02 has been renumbered to -SA to conform to the project/program naming convention that has been established for FY11. This revision affects support for the following programs and Ares Project Office (APO) elements: Shuttle.

Sub-elements and WBS funding

Program	Subelement	Previous Subelement	WBS	Status
First Stage	CF	CF	136905.08.01.03	<i>closed administratively on July 3, 2010</i>
Upper Stage	CU	CU	133905.08.05.08.08.01.08	<i>closed administratively on July 3, 2010</i>
External Tank	SA	02	524238.08.01.01.03	<i>Mapped to 37-030102-SA</i>
Solid Rocket Booster (SRB)	03	03	522632.08.01.01	<i>Closed with Rev 3</i>

Revision 03: The purpose of this revision (03) is to extend this task into Contract Year (CY) 5 of the NNM05AB50C ESTS contract. This revision defines and estimates work for the period October 3, 2009 through October 14, 2010. Task work on Sub-element -03, SRB Imaging Support, will not continue

into CY5. Additionally, the Schedule, Performance Plan and Risk Assessment have been revised to reflect changes in task activities for the new period of performance.

Revision 02: The purpose of this revision (02) is to extend this task into Contract Year 4 of the NNM05AB50C ESTS contract. This revision defines and estimates work for the period September 27, 2008 through October 2, 2009. Additionally, the Schedule, Performance Plan and Risk Assessment have been revised to reflect changes in task activities for the new period of performance. Subelement -02 reactivates work that was previously performed under task order 31-020102-02 on the External Tank imaging activities. This revision affects the following Ares Project Office (APO) elements: The purpose of Revision 01 is to decrease the travel estimate on the Subelement -CU task activities since no travel will be required. No other changes were made, and no additional budget is required.

This Task Order (TO) is a continuation of work being performed on 31-020102-CA and 31-020102-03 of the NNM05AB50C ESTS contract. This TO realigns work performed previously in EI21, and now supports ES31 within the new ED organizational structure. This TO defines and estimates work for the period 1 March 2008 through 26 September 2008. For Subcontracted efforts, this TO authorizes work for the same period. TO 31-020102 will be revised for closure in March with an effective date of 29 February 2008.

31-020102-CA was split into two subelements to support the Ares First Stage and Upper Stage imaging task support.

1.0 Task Order Description & Objectives

The Jacobs ESTS Group will provide technical support to the Imaging Team (ES31). Specific activities to be performed will include design, development, and test of video systems for flight, space, and ground based optical instrumentation applications. This includes the development and utilization of all components of an imaging system to include but not be limited to lenses, cameras, computers, frame grabbers, lasers, and control systems. Also included will be the development of system requirements and support to intra- and inter-organizational and project reviews

The Jacobs ESTS Group will support the development and utilization of all components of an imaging system to include but not be limited to lenses, cameras, computers, frame grabbers, lasers, and control systems.

The Jacobs ESTS Group will also develop system requirements and support intra- and inter-organizational and project reviews.

Sub-element SA: External Tank (ET) Imaging Support

The Jacobs ESTS Group will provide technical support to ES31 for the External Tank (ET) activities. Specific activities to be performed will include design, development, and test of video systems for the ET. Trade studies and performance analyses of advanced video concepts for upgrades of existing video systems will also be developed under this subelement.

The Jacobs ESTS Group will support travel if necessary to interface with other centers performing ET efforts to develop and test imaging systems.

Sub-element 03: SRB Imaging Support (Closed with Rev 03)

This subelement provided technical support to ES31 for the Solid Rocket Booster (SRB) activities. Activities included design, development, and test of video systems for the SRB, trade studies, and performance analyses of advanced video concepts.

Sub-element CF: Ares First Stage Imaging Support (closed administratively on July 3, 2010)

This subelement provided technical support to ES31 for the Ares First Stage activities. Activities included investigations of advanced imaging systems and the design, development, and test of video and imaging systems for the First Stage element of Ares I and V.

Sub-element CU: Ares Upper Stage Imaging Support (closed administratively on July 3, 2010)

This subelement provided technical support to ES31 for the Ares Upper stage activities. Activities included investigations of advanced imaging systems and the design, development, and test of video and imaging systems for the Upper Stage element of Ares I and V.

2.0 Technical Approach (Including required input, guidelines & assumptions)

The Jacobs ESTS Group will perform the work described above using standard office automation software including Microsoft Project, Excel, Word and PowerPoint. Specialized optical and mechanical design software programs may be beneficial to quickly develop and analyze imaging system designs.

To perform this task, the Jacobs ESTS Group will identify requirements and develop possible system-level solutions for use in advanced imaging and video and optical systems. System requirements may include constraints from the International Space Station (ISS), ISS racks, Space Shuttle, interfaces with other systems, environmental, cost, weight, and size restrictions. Components of such systems may include: lenses, video or digital cameras, computers, frame grabbers, control and storage systems.

The Jacobs ESTS Group will support imaging team meetings, Project design reviews, and Project meetings to provide input and recommendations related to imaging system development for ES31 and for the projects identified in the subelements.

3.0 Discussion of Skills Required

Personnel supporting this task must have (b)(4)

(b)(4)

(b)(4) Personnel performing this task must also be proficient with the following design and imaging software tools: Solid Edge, Image Java, DXO Analyzer, and Vision NOW. Personnel must also have some experience in project support.

4.0 Special Tools Required

None Identified.

5.0 Participating Subcontractors

(b)(4)

6.0 Milestones & Deliverables

- Monthly activity reports
- Presentations of camera/recording system development and test plans
- Reviews of Technical Interchange Meetings (TIMs) on camera/recording systems

7.0 Special Considerations (Recruiting, Special Equipment / Material, Safety, etc.)

None.

8.0 Work Shelf

The following activities could be accomplished as part of the Task Order performance by personnel that are temporarily available due to program or funding delays on other Tasks. Specific assignments will be coordinated with the Task Initiator to ensure appropriate skills and experience.

TO/Subelement	Description	Due Date	Skill
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9.0 Schedule

Task Order #	Subelement	Task Work Element	2011													
			Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
37-030102	--	Imaging Team Engineering Support														
37-030102	SA	External Tank Imaging Support														
37-030102	--	Monthly Activity Reports (MARs)														

ESTS Contract Task Order Request Performance Plan

Task Order Title: [Imaging Team Engineering Support](#)

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Category	Weighting Technical %	End of Period Technical Score
Technical Objectives	65%	X 65% = Justification
<ul style="list-style-type: none"> - Design, develop and test video systems and interfaces applicable to External Tank objectives. - Research, design, develop, integrate and test new and/or enhanced video systems and concepts for the Shuttle Program. - Develop video system requirements and verifications. - Support project reviews of video systems. 		
Schedule Objectives (Milestones)	Weighting Schedule % 10% (min 10%)	Schedule Score X 10% = Justification
<ul style="list-style-type: none"> -Monthly activity reports -Presentations of camera/recording system development and test plans -Reviews of Technical Interchange Meetings (TIMs) on camera/recording systems 		
Cost (actual vs. negotiated)	Weighting Cost% 25% (min.25%)	Cost Score X 25% = Justification
	Weighting Total % 100.00%	Total Score

Technical, Schedule, and Cost Grading Scale

Score	Description
9.0-10.0	Exceeded TO Performance Plan objectives resulting in major benefit(s)
8.0-8.9	Exceeded TO Performance Plan objectives resulting in modest benefit(s)
7.0-7.9	Met TO Performance Plan objectives
3.0-6.9	Did not meet all TO Performance Plan objectives resulting in minimal impact or requiring additional agency funds
0.0-2.9	Did not meet TO Performance Plan objectives resulting in substantial impact and/or requiring additional agency funds

ESTS Contract Task Order Request Performance Plan

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Comments:

Risk Assessment

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Task Order Risk Assessment to Cost, Technical, and Schedule

List identified risk associated with Task Order performance as related to task cost, technical, and schedule. Classify the risk(s) according to probability of occurrence and impact as defined below and enter the risk into risk matrix.

Sub-Element: SA (External Tank Imaging Support)

Risk	Risk Type	Probability (1-4)	Impact (1-4)	Risk Description
Risk C1	Cost			No cost risks have been identified.
Risk C2	Cost			
Risk T1	Technical			No technical risks have been identified.
Risk T2	Technical			
Risk S1	Schedule			No schedule risks have been identified.
Risk S2	Schedule			

*Note: See page 2 for risk mitigation plan for those risks, which are Primary Risk Drivers.



