

Task Order Plan (TOP)

Contract Number: NNM05AB50C

TO Title: Ares Projects Office (APO) Business Management and Schedule Support

TO Number: 45-000201 **Revision:** 17

Period of Performance: 10/02/2010 to 9/30/2011

MSFC Initiator: Melanie Aldridge

(b)(4)

Emergency: No

Revision 17: The purpose of this revision is to extend this task into Contract Year 6 (CY6) of the NNM05AB50C ESTS contract. It should be noted that subelements CA, CB, CC, CD, CE, and CF were administratively closed in Contract Year 5 as a result of the Constellation/Ares replan effort. The work under subelements CE and CF was transferred to Task Order 45-000001.

Subelement AA (WBS 206518.01.20), the only remaining subelement, will provide Ares V schedule support and has a period of performance from October 2, 2010 through September 30, 2011.

The Schedule, Performance Plan and Risk Assessment have been reviewed and revised as required to reflect changes in task activities for the new period of performance.

The total estimated cost for this period of performance is (b)(4)

Revision 16: The purpose of this revision is to implement the Task Initiator's request to reduce the level of support for Subelement CC (Ares I US Element Schedule Support). (WBS 136905.08.05.01.08)

The total estimated cost **decrease** for this revision is (b)(4)

- Subelement CC: The Upper Stage (US) Element Office has reevaluated their schedule support needs and determined that less schedule support is required at this time; consequently, the Subcontractor Cost Estimate has decreased resulting in a reduction of (b)(4) (WBS 136905.08.05.01.08)

Additionally, the Schedule, Performance Plan, and Risk Assessment were each evaluated for possible impacts and no impacts were identified.

Revision 15: The purpose of this revision is to extend this task into Contract Year 5 of the NNM05AB50C ESTS contract. This revision defines and estimates work for the period October 3, 2009 through October 14, 2010. Additionally, the Schedule, Performance Plan, and Risk Assessment have been revised to reflect changes in task activities for the new period of performance. This Task Order revision affects the following APO elements: Ares V, Vehicle Integration Office, Ares I Upper Stage, Ares I-X, Flight Integration Test Office (FITO) Integrated Vehicle Ground Vibration Test, and FITO.

- Subelement AA: The estimated (b)(4) (WBS 206518.01.20)

- Subelement CA: The (b)(4) (WBS 136905.01.02.08.20)
- Subelement CB: The (b)(4) (WBS 136905.02.08.08.01)
- Subelement CC: The (b)(4) (WBS 136905.08.05.01.08)
- Subelement CD: The (b)(4) (WBS 136905.10.10.10.10)
- Subelement CE: The (b)(4) (WBS 136905.10.30.10)
- Subelement CF: The (b)(4) (WBS 136905.10.40.10)

The total estimated cost for this period of performance is (b)(4)

Revision 14: This revision modifies all seven (7) subelements in this task order to realign labor hours, estimated travel costs, estimated Other Direct Costs, and subcontract estimates to more closely reflect task performance as it has fluctuated to meet customer requirements and transitions the Ares V subcontract support defined in subelement AA from this task order to another ESTS task order.

This Task Order defines subcontractor support which will be performed in September 2009, but not invoiced until October 2009. The subcontractor support to Subelements CA, CB, CC, CD, & CF for September is being deleted from this Task Order in this revision. The estimated subcontractor costs for effort performed in September 2009 will be included in a Contract Year 5/FY10 Task Order revision.

The total estimated cost **decrease** associated with this revision is (b)(4). This Task Order revision affects the Ares Projects Office and the following Elements within APO, Ares V, VIO, US, Ares I-X, FITO IVGVT, and FITO.

- Subelement AA: Per customer direction, transitioned the Ares V Business Management Support from 45-000201-AA to ESTS Task Order 45-000103-AB. The transfer of this support is effective as of July 1, 2009. The oversight and the direct labor hours for Ares V schedule support were reduced from (b)(4) due to a realignment of personnel. A portion of the reduction of the estimated subcontract cost was reallocated to Subelement CA. The total resulting decrease in estimated cost to Subelement AA is (b)(4) (WBS 206518.01.20)
- Subelement CA: Increased and realigned the estimated oversight labor hours and the estimated subcontract cost to more closely reflect customer requirements.
 - In Revision 11, this Task Order included only one subelement, Subelement CA; and that revision removed the estimated subcontractor cost for support supplied in September 2008 because the costs for this support would not be received and posted until 1st quarter FY09.
 - In Revision 12, the September 2008 estimated subcontract costs were reallocated from CA and spread across new Subelements AA, CB, CC, CD, and CF, as directed by the customer. Because the only active charge code for FY08 was 45-000201-CA; the subcontractor invoices received and posted in 1st quarter FY09 could only be posted against charge code 45-000201-CA.
 - Revision 14 removes the estimated subcontractor costs from Subelements AA, CB, CC, CD, and CF for effort that was performed in CY3/FY08 but NOT ESTIMATED or costed until CY4/FY09 and incorporates it into Subelement CA. This ensures that the effort performed and invoiced against CA can now be covered by the subcontractor estimate parsed from the other subelements and placed back into CA. *(See the verbiage under Revision 11 for additional details on the removal of the estimated subcontractor cost from the CY3/FY08).*
 - The total *increase* in estimated cost to Subelement CA is (b)(4) which is a reallocation of estimated subcontract cost previously captured in Subelements AA, CB, CC, CD, and CF consequently the total for these subelements decreased by the same amount. (WBS 136905.01.02.08.20)

- Subelement CB: Reduced and realigned the estimated oversight labor hours, the estimated travel costs, and the estimated subcontract cost to more closely reflect task performance as it has fluctuated to meet customer requirements. A portion of the reduction of the estimated subcontract cost was reallocated to Subelement CA. The total decrease in estimated cost to Subelement CB is (b)(4) (WBS 136905.02.08.08.01)
- Subelement CC: Increased and realigned the estimated labor hours, reduced the estimated Other Direct Cost and subcontract cost, and deleted the estimated travel cost to more closely reflect task performance as it has fluctuated to meet customer requirements. A portion of the reduction of the estimated subcontract cost was reallocated to Subelement CA. The total decrease in estimated cost to Subelement CC is (b)(4) (WBS 136905.08.05.01.08)
- Subelement CD: Increased the estimated labor hours and the estimated travel cost, and reduced the estimated subcontract cost to more closely reflect task performance as it has fluctuated to meet customer requirements. A portion of the reduction of the estimated subcontract cost was reallocated to Subelement CA. The total decrease in estimated cost to subelement CD is (b)(4) (WBS 136905.10.10.10.10)
- Subelement CE: Reduced the estimated labor hours and the estimated travel cost to more closely reflect task performance as it has fluctuated to meet customer requirements. The total decrease in estimated cost to Subelement CE is (b)(4) (WBS 136905.10.30.10)
- Subelement CF: Reduced and realigned the estimated subcontract cost to more closely reflect task performance as it has fluctuated to meet customer requirements. A portion of the reduction of the estimated subcontract cost was reallocated to Subelement CA. The total decrease in estimated cost to Subelement CF is (b)(4) (WBS 136905.10.40.10)

Additionally, the Schedule, Performance Plan, and Risk Assessment were each evaluated for possible impacts and no revisions were necessary.

Revision 13: The purpose of this revision is to modify four (4) subelements in this task order and to add two (2) additional subelements. This revision reduces the scope of Subelements AA and CA, increases the scope of Subelements CC and CD, and adds new Subelements CE and CF as follows:

- Subelement AA: Per customer direction, reduced labor hours and travel estimate to split support between Subelement AA and Subelement CD. Labor hours and travel estimate for Ares I-X support were moved to Subelement CD. The total decrease in estimated cost to Subelement AA is (b)(4) (WBS 206518.01.01.08)
- Subelement CA: Per customer direction, reduced labor hours and travel estimate to separate Flight Integration Test Office (FITO) and Ground Vibration Test (GVT) schedule support from the Ares I IMS schedule support. The GVT and FITO schedule support and estimated costs were moved to Subelement CE and Subelement CF, respectively. The total decrease in estimated cost to Subelement CA is (b)(4) (WBS 136905.01.02.08.20)
- Subelement CC: Per customer direction, increased the scope and estimated costs due to the inclusion of Upper Stage (US) schedule support previously provided under ESTS Task Order 45-030001. This change was made due to the Upper Stage (US) Business Office's request to define all US schedule support in one ESTS task order. The total increase in estimated cost to Subelement CC is (b)(4) (WBS 136905.08.05.01.08)
- Subelement CD: Per customer direction, increased labor hours and travel estimate due to the Ares I-X schedule support previously captured in Subelement AA being moved to Subelement CD. Increased estimated subcontract cost due to the inclusion of the Ares I-X Avionics Integration Services (AIS) schedule support being moved from ESTS Task Order 45-010007 to this Task Order. The total increase in estimated cost to subelement CD is (b)(4) (WBS 136905.10.10.10.10)

- Subelement CE: Per customer direction, created this new Subelement for the GVT schedule support that was separated from Subelement CA. This subelement covers 10 months of schedule support including labor and travel estimate starting in December 2008. The total estimated cost for this *new* subelement is (b)(4) (WBS 136905.10.30.10)
- Subelement CF: Per customer direction, created this new Subelement for the FITO schedule support that was separated from Subelement CA. This subelement covers 11 months of subcontracted schedule support and oversight labor starting in November 2008. The total estimated cost for this *new* subelement CE is (b)(4) (WBS 136905.10.40.10)

Additionally, the Schedule, Performance Plan, and Risk Assessment were each evaluated for possible impacts due to this increase in scope and revised as needed.

The total estimated cost increase associated with this revision is (b)(4) This Task Order revision affects the Ares Projects Office.

Revision 12: The purpose of this revision 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 were revised to reflect changes in task activities for the new period of performance. This revision also subdivides this Task Order into five (5) specific subelements that correlate directly to the APO Element and/or Organization receiving the support and providing the funding for said support. The support to the Upper Stage Engine Element (USE), which was previously provided in through this Task Order, has been moved to ESTS Task Order 45-050001-CD.

This Task Order revision affects the following APO Elements and/or organizations.

Subelement	Support Provided	AP0 Element and/or Organization	WBS Charge Code
AA	Ares V Business Mgt. and Schedule Support	Ares V Element Office	206518.01.01.08
CA	Ares IMS, IVGVT, and FITO Schedule Support	AP0 PP&C (JP02)	136905.01.02.08.20
CB	Ares VIO and VI Schedule Support	Vehicle Integration Element Office (JP10)	136905.02.08.08.01
CC	Ares US Element Schedule Support	Upper Stage Element Office (JP30)	136905.08.05.01.08
CD	Ares I-X Schedule Support	FIT0 Ares I-X Element Office (JP60)	136905.10.10.10.10

The total estimated cost associated with this revision is (b)(4)

Subelement AA: This subelement includes the estimated Subcontract cost to provide Ares V Business Management support, the estimated labor cost to provide Ares V schedule support as well as the estimated labor cost for oversight labor for the Subcontract effort. The estimated cost for this effort is (b)(4) (WBS 206518.01.01.08)

Subelement CA: This subelement includes the estimated Subcontract cost to provide Ares I Integrated Master Schedule (IMS) Schedule support and the Flight and Integrated Test Office (FITO) IMS support, the estimated labor cost to provide FITO Integrated Vehicle Ground Vibration Test (IVGVT) schedule support as well as the estimated labor cost for oversight labor for the Subcontract effort. The estimated cost for this effort is (b)(4) (WBS 136905.01.02.08.20)

Subelement CB: This subelement includes the estimated Subcontract cost to provide Vehicle Integration Office (VIO) Schedule Integration support and Vehicle Integration (VI) Schedule support, the estimated labor cost to provide VI schedule support as well as the estimated labor cost for oversight labor for the Subcontract effort. The estimated cost for this effort is (b)(4) (WBS 136905.02.08.08.01)

Subelement CC: This subelement includes the estimated Subcontract cost to provide Upper Stage (US) Element Schedule support as well as the estimated labor cost for oversight labor for the Subcontract effort. The estimated cost for this effort is (b)(4) (WBS 136905.08.05.01.08)

Subelement CD: This subelement includes the estimated Subcontract cost to provide Ares I I-X Schedule support as well as the estimated labor cost for oversight labor for the Subcontract effort. The estimated cost for this effort is (b)(4) (WBS 136905.10.10.10.10)

Revision 11: The purpose of this revision is to remove subcontract costs associated with the September schedule support from (b)(4) that will not be billed until October. As a result, these subcontract costs will be removed from the September 2008 estimate and estimated in the FY2009 task order. This revision reduces the estimated labor hours to more accurately reflect the total labor hours expected to be incurred in FY2008. This revision also reduces the estimated travel cost and deletes the estimated ODC costs that are not expected to be incurred in FY2008.

- This revision decreases the estimated subcontract cost by (b)(4)
- This revision decreases the estimated labor hours by (b)(4) and results in an estimated reduction in labor cost of (b)(4)
- This revision decreases the estimated travel cost by (b)(4)
- This revision deletes the estimated (b)(4)

The overall cost impact resulting from this revision is a decrease in estimated cost of (b)(4)

Additionally, the Schedule, Performance Plan, and Risk Assessment were each evaluated for possible impacts and no impacts were identified.

Revision 10: The purpose of this revision is to add additional scope to the Flight and Integrated Test Office (FITO) schedule and project planning support. The FITO support is being increased to include a dedicated scheduler for the Integrated Vehicle Ground Vibration Test (IVGVT) and a dedicated scheduler for the more general FITO Ares Element. This revision also includes an increase to the subcontract cost due to additional travel being taken to support the APO Elements. The overall cost impact resulting from this revision is an increase in estimated cost of (b)(4)

- This revision increased the estimated subcontract cost by (b)(4)
- This revision increases the estimated labor cost by (b)(4) for the IVGVT scheduler to support FITO.
- This revision increases the estimated travel cost by (b)(4) for the IVGVT scheduler to support FITO.
- This revision adds estimated (b)(4) for allow (b)(4)

Additionally, the Schedule, Performance Plan, and Risk Assessment were each evaluated for possible impacts due to this increase in scope and revised as needed.

Revision 09: The purpose of this revision is to more accurately reflect the estimated cost for the subcontracted schedule support. In addition, this revision removes the schedule support to the VIO Integrated Design and Analysis (IDA) team as it is not needed at this time. The overall cost impact resulting from this revision is a decrease in estimated cost of (b)(4)

- This revision increases the estimated subcontract cost by (b)(4)
- This revision removes the estimated labor cost for the IDA schedule support as well as reduces the task management and subcontractor oversight labor cost. The total estimated reduction in labor cost is (b)(4)
- This revision reduces the travel estimate due to the removal of the IDA schedule support resulting in a reduction of estimated travel cost of (b)(4)

Additionally, the Schedule, Performance Plan and Risk Assessment were evaluated for possible impacts as a result of this reduction in scope.

Revision 08: The purpose of this revision is to extend this task into Contract Year 3 of the NNM05AB50C ESTS contract. This revision defines and estimates work for the period 29 September 2007 through 26

September 2008. Additionally, the Schedule, Performance Plan and Risk Assessment have been revised to reflect changes in task activities for the new period of performance. The total estimated cost for this TOP is (b)(4) (WBS 136905.01.01.08)

- Subelement CA: The estimated costs associated with the schedule and business management support of this Task Order are detailed below:
 - This subelement includes an estimate of labor cost and travel to perform Vehicle Integration (VI) schedule support, VI Integrated Design & Analysis schedule support, and Ares I-X schedule support.
 - This subelement includes an estimate of subcontract cost to perform Business Management support; Ares Integrated Master Schedule (IMS) schedule support, Flight & Integrated Test Office (FITO) schedule support, and Ares I-X schedule support.
 - This subelement includes an estimate of subcontract cost to perform Vehicle Integration Office (VIO) Integrated Master Schedule (IMS), Vehicle Integration (VI) schedule support, Upper Stage (US) schedule support, and Upper Stage Engine (USE) support.
 - This subelement includes an estimate for the labor cost to perform task and subcontractor management of the two subcontractors supporting this Task Order.

Revision 07: The purpose of this revision is to remove subcontract costs associated with the September schedule support from (b)(4) that will not be billed until October. As a result, these subcontract costs will be removed from the September 2007 estimate and estimated in the FY2008 task order.

Revision 06: The purpose of this revision is to add additional subcontract cost from (b)(4) to provide schedule support to the Vehicle Integration office. Training costs anticipated to be expended for Primavera training were removed.

Revision 05: The purpose of this revision is to remove subcontract cost estimated in FY2007 that were paid in September 2006. Additional subcontract cost was removed to reflect the reduced support required in October through December. Jacobs' labor hours were reduced to reflect the delay in staffing a new position authorized with revision 04.

Revision 04: The purpose of this revision is to extend this task into Contract Year 2 of the NNM05AB50C ESTS contract. This revision defines and estimates work for the period 30 September 2006 through 28 September 2007. Additionally, the Schedule, Performance Plan and Risk Assessment have been revised to reflect any changes in task activities for the new period of performance. Additional subcontract costs from existing subcontractor (b)(4) have been added for schedule support to the Flight and Integrated Test Office (FITO) for Structural, Environmental and Vibration Test and as a backup for the Ares I-1 Scheduler. Travel costs are estimated to support any travel associated with Jacobs' resources supporting Constellation program reviews, Earned Value Management focal point council meetings and to attend Primavera training. Other direct costs are included for any required training and recruiting costs. Subelement CA is being added to allow for tracking of costs associated with Constellation support. Subelement 00 remains to allow for the tracking of September 2006 non-Constellation subcontract cost from (b)(4) that will be incurred in October.

Revision 03: The purpose of this revision is to remove subcontract costs associated with the September schedule support from (b)(4) that will not be billed until October. As a result, these subcontract costs will be removed from the September 2006 estimate and estimated in the FY2007 task order. This revision also deletes ODC not expected to be incurred in FY2006 and adds Jacobs' resources to support the Ares Projects Office (APO) Crew Launch Vehicle (CLV) Integrated Design & Analysis work package for the next Design Analysis Cycle.

Revision 02: The purpose of this revision is to add subcontract schedule support for the Ares Projects Office (APO) Crew Launch Vehicle (CLV) Integrated Master Schedule. This support will be provided by an existing subcontractor, (b)(4)

Revision 01: The purpose of this revision is to add (b)(4) subcontract schedule support for the Ares Projects Office (APO) Vehicle Integration (VI) Integrated Master Schedule and for the ELO Upper Stage. This revision also reduces the (b)(4) required in support of the Avionics Integration Verification & System Test (AIVST) schedule.

This Task Order (TO) replaces TO 15-080001 due to the NASA/MSFC reorganization and the subsequent realignment of the NNM05AB50C ESTS contract. This TO defines and estimates work for the period 1 April 2006 through 29 September 2006. Funding for this task is provided per MSFC PR 4200143261. Additionally, the Schedule, Performance Plan and Risk Assessment have been revised to reflect changes in task activities for the new period of performance.

1.0 Task Order Description & Objectives

This task order includes seven (7) subelements and provides support in the following areas of the Ares Projects Office:

- Subelement AA: Ares V Business Management support and Ares V schedule support. (*Note: the Business Management effort transitioned to 45-000103-AB on July 1, 2009.*)
- Subelement CA: Closed in Revision 17. Ares I Integrated Master Schedule (IMS) schedule support.
- Subelement CB: Closed in Revision 17. Vehicle Integration Office (VIO) Schedule Integration support and Vehicle Integration (VI) schedule support.
- Subelement CC: Closed in Revision 17. Upper Stage (US) Element Office schedule support.
- Subelement CD: Closed in Revision 17. Ares I-X and Avionics Integrator Services (AIS) schedule support.
- Subelement CE: Closed in Revision 17. FITO Ground Vibration Test (GVT) schedule support.
- Subelement CF: Closed in Revision 17. Flight and Integrated Test Office (FITO) schedule support.

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

2.1 Subelement AA: Ares V Business Management and Schedule Support

Ares V Business Management Support (*Note: the Business Management effort transitioned to 45-000103-AB on July 1, 2009.*)

Support will be provided to the Ares V Business Management Office, which includes technical resources management for efforts ranging from budgetary analysis and maintenance to specific project execution. The technical approach for this area of support is described by the following:

- Perform cost and schedule performance analysis.
- Provide Earned Value Management (EVM) implementation and analysis, including use of WInsight.
- Develop and analyze Work breakdown(WBS) structure for Ares projects
- Formulate, implement, and maintain budgetary requirements, Operating Plans, procurement planning and execution, and workforce planning.
- Participate in business management aspects of Ares V including planning, budgeting, scheduling, cost control, full cost accounting/budgeting implementation, task agreement negotiations, task agreement control, workforce tracking and analysis.
- Participate in the development and execution of project/program and/or MSFC center plans, identification and analysis of the resource commitments/requirements necessary to achieve technical progress and related schedule milestones.

- Develop and brief integrated monthly project status reports that involve the following: plan vs. actuals analysis for commitments, obligations, cost, and workforce; Earned Value Management analysis; funding assessment; and variance analysis as related to technical performance and schedule.
- Participate in project-level and MSFC meetings and reviews and prepare programmatic presentations, as required.
- Conduct independent assessments of periodic budget formulation packages, including Phasing Plans, Program Operating Plans, and revisions to project budget planning driven by approved configuration Change Directives.
- Conduct independent assessments of monthly performance accountability reports, including cost, schedule, earned value, and risk.

Ares V Schedule Support

Support will be provided to the Ares V projects in the areas of schedule development, maintenance, analysis, integration, and EVM for the Ares V schedules as well as integration into the Ares and Constellation Program (CxP) schedules. Review and analyze resource loaded schedules and the associated network logic for completeness, reasonableness, functionality, and accuracy.

Develop and maintain the resource loaded Ares V schedules and ensure that network logic is complete. Ensure the critical path and other schedule analysis reports and any performance concerns are provided to Ares V project management for timely decision making. Assistance will be provided to Ares V Project Managers with “what-if” scenario analysis and work-around planning by utilizing project network logic drive schedules.

Participate and assist with special MSFC and Ares V teams assigned to perform project analyses and integrated project reviews, when needed. Participate in special independent program assessment teams for the purpose of determining the feasibility of a program/project achieving the approved cost, schedule and technical requirements.

2.2 Subelement CA: Ares I IMS Schedule Support

This subelement was closed in Revision 17.

Support will be provided to APO in the areas of schedule development, maintenance, analysis, integration and EVM for the Ares Integrated Master Schedule as well as integration into the Constellation Program (CxP) schedules. Review and analyze resource loaded schedules and the associated network logic for completeness, reasonableness, functionality, and accuracy.

Develop and maintain the resource loaded Ares IMS schedule and ensure that network logic is complete. Ensure the critical path and other schedule analysis reports and any performance concerns are provided to Ares project management for timely decision making. Assistance will be provided to Ares Project Managers with “what-if” scenario analysis and work-around planning by utilizing project network logic drive schedules.

Participate and assist with special MSFC and Ares teams assigned to perform project analyses and integrated project reviews, when needed. Participate in special independent program assessment teams for determining the feasibility of a program/project achieving the approved cost, schedule and technical requirements.

2.3 Subelement CB: Vehicle Integration Office Support (closed in Revision 17)

This subelement was closed in Revision 17.

APO Vehicle Integration Office (VIO) Schedule Integration support

Support will be provided to APO in the areas of schedule development, maintenance, analysis, integration and EVM for the APO VI Integrated Master Schedule as well as integration into the Constellation Program (CxP) schedules. Review and analyze resource loaded schedules and the associated network logic for completeness, reasonableness, functionality, and accuracy.

Develop and maintain the resource loaded VI IMS schedule and ensure that network logic is complete. Ensure the critical path and other schedule analysis reports and any performance concerns are provided to Ares project management for timely decision making. Assistance will be provided to Ares Project Managers with “what-if” scenario analysis and work-around planning by utilizing project network logic drive schedules.

Participate and assist with special MSFC and Ares teams assigned to perform project analyses and integrated project reviews, when needed. Participate in special independent program assessment teams for the purpose of determining the feasibility of a program/project achieving the approved cost, schedule and technical requirements.

APO Vehicle Integration (VI) Schedule support

Support will be provided to APO in the areas of schedule development, maintenance, analysis, integration and EVM for the VI schedules as well as integration into the Ares IMS schedule and the Ares Elements schedules. Review and analyze resource loaded schedules and the associated network logic for completeness, reasonableness, functionality, and accuracy.

Develop and maintain the resource loaded VIO schedules and ensure that network logic is complete. Ensure the critical path and other schedule analysis reports and any performance concerns are provided to Ares project management for timely decision making. Assistance will be provided to Ares Project Managers with “what-if” scenario analysis and work-around planning by utilizing project network logic drive schedules.

Participate and assist with special MSFC and Ares teams assigned to perform project analyses and integrated project reviews, when needed. Participate in special independent program assessment teams for the purpose of determining the feasibility of a program/project achieving the approved cost, schedule and technical requirements.

2.4 Subelement CC: Upper Stage Element Office Support

This subelement was closed in Revision 17.

Support will be provided to Upper Stage in the areas of schedule development, maintenance, analysis, integration and EVM for the US Element and Subsystem schedules as well as integration into the Ares VIO schedules and the VI IMS schedule. Review and analyze resource loaded schedules and the associated network logic for completeness, reasonableness, functionality, and accuracy.

Develop and maintain the resource loaded US schedules and ensure that network logic is complete. Ensure the critical path and other schedule analysis reports and any performance concerns are provided to US project management for timely decision making. Assistance will be provided to US Project Managers with “what-if” scenario analysis and work-around planning by utilizing project network logic drive schedules. This schedule effort includes IMS schedule support, structures and thermal schedule support, Stage Ops schedule support, Integrated Logistics Support (ILS) schedule support, RCS schedule support, Small Solids schedule support, and Avionics and Software schedule support.

Participate and assist with special MSFC and Ares teams assigned to perform project analyses and integrated project reviews, when needed. Participate in special independent program assessment teams for the purpose of determining the feasibility of a program/project achieving the approved cost, schedule and technical requirements.

2.5 Subelement CD: Ares I-X and Ares I-X AIS Schedule Support

This subelement was closed in Revision 17.

Ares I-X Schedule Support

Support will be provided to the Ares I-X projects in the areas of schedule development, maintenance, analysis, integration and EVM for the Ares I-X schedules as well as integration into the Ares and Constellation Program (CxP) schedules. Review and analyze resource

loaded schedules and the associated network logic for completeness, reasonableness, functionality, and accuracy.

Develop and maintain the resource loaded Ares I-X schedules and ensure that network logic is complete. Ensure the critical path and other schedule analysis reports and any performance concerns are provided to Ares I-X project management for timely decision making. Assistance will be provided to Ares I-X Project Managers with “what-if” scenario analysis and work-around planning by utilizing project network logic drive schedules.

Participate and assist with special MSFC and Ares I-X teams assigned to perform project analyses and integrated project reviews, when needed. Participate in special independent program assessment teams for determining the feasibility of a program/project achieving the approved cost, schedule and technical requirements.

Ares I-X Avionics Integrator Services (AIS) Schedule Support

Support will be provided to the ESTS AIS COTR in managing the AIS schedule as well as facilitating development and maintenance of the AIS Integrated Master Schedule (IMS). Monitor and validate the IMS progress, support “critical path”/impact analysis, and report schedule performance monthly. Facilitate the monthly schedule status process with the subcontractor. Provide analysis of schedule performance, associated issues and impacts to include reporting by exception: slipping and behind schedule tasks. Perform schedule variance analysis reporting in support of the element’s EVM process monthly.

2.6 Subelement CE: FITO Ground Vibration (GVT) Test Schedule Support

This subelement was closed in Revision 17.

Support will be provided to FITO in the areas of GVT schedule development, maintenance, analysis, integration, and EVM as well as integration into other Ares I schedules. Review and analyze resource loaded schedules and the associated network logic for completeness, reasonableness, functionality, and accuracy.

Develop and maintain the resource loaded GVT schedules and ensure that network logic is complete. Ensure the critical path and other schedule analysis reports and any performance concerns are provided to Ares I Structural, Environmental, and Vibration Test Lead for timely decision making. Assistance will be provided to GVT SE&V Test Lead with “what-if” scenario analysis and work-around planning by utilizing project network logic drive schedules.

Participate and assist with special MSFC and Ares teams assigned to perform project analyses and integrated project reviews, when needed. Participate in special independent program assessment teams for determining the feasibility of a program/project achieving the approved cost, schedule and technical requirements.

2.7 Subelement CF: FITO Schedule Support

This subelement was closed in Revision 17.

Support will be provided to FITO in the areas of schedule development, maintenance, analysis, integration, and EVM as well as integration into other Ares I schedules. Review and analyze resource loaded schedules and the associated network logic for completeness, reasonableness, functionality, and accuracy.

Develop and maintain the resource loaded FITO schedules and ensure that network logic is complete. Ensure the critical path and other schedule analysis reports and any performance concerns are provided to Ares I FITO Manager for timely decision-making. Assistance will be provided to FITO Manager with “what-if” scenario analysis and work-around planning by utilizing project network logic drive schedules.

Participate and assist with special MSFC and Ares teams assigned to perform project analyses and integrated project reviews, when needed. Participate in special independent program assessment teams for determining the feasibility of a program/project achieving the approved cost, schedule and technical requirements.

3.0 Discussion of Skills Required

3.1 Subelement AA: Ares V Business Management and Schedule Support

Ares V Business Management Support (Note: the Business Management effort transitioned to 45-000103-AB on July 1, 2009.)

Senior personnel shall have (b)(4)

(b)(4)

(b)(4) Experience in the development and implementation of product-oriented Work Breakdown Structure (WBS) is required. A proficiency in Microsoft Office, Microsoft Project, Filemaker Pro, and wInsight is required. Personnel shall have experience in technical resource management of NASA projects and excellent writing, communication, and analytical skills. Personnel are required to be self motivated team players familiar with working in a dynamic work environment.

Ares V Schedule Support

Senior personnel shall have a (b)(4)

(b)(4)

(b)(4) Personnel shall have a thorough comprehension of planning and scheduling of NASA projects as well as an understanding of the application of Critical Path Method (CPM) scheduling principles, concepts, and techniques. Experience in cost & schedule integration through resource loading and leveling of schedules is also required. Experience in cost & schedule integration through resource loading and leveling of schedules and the use of Earned Value Management techniques to perform schedule performance assessments is required. Personnel are required to be self-motivated team players familiar with working in a dynamic work environment.

3.2 Subelement CA: Ares I IMS Schedule Support

This subelement was closed in Revision 17.

Personnel shall have a (b)(4)

(b)(4)

(b)(4) Personnel shall have a thorough comprehension of planning and scheduling of NASA projects as well as an extensive understanding of the application of Critical Path Method (CPM) scheduling principles, concepts, and techniques. Experience in cost & schedule integration through resource loading of IMS schedules and leveling of schedules is also required. Expertise in the use of Earned Value Management techniques to perform schedule performance is required. Personnel are required to be self-motivated team players familiar with working in a dynamic work environment.

3.3 Subelement CB: Vehicle Integration Office Support

This subelement was closed in Revision 17.

APO Vehicle Integration Office (VIO) Schedule Integration support

Personnel shall have a (b)(4)

(b)(4)

(b)(4) Personnel shall have a thorough comprehension of planning and scheduling of NASA projects as well as an extensive understanding of the application of Critical Path Method (CPM) scheduling principles, concepts, and techniques. Experience in cost & schedule integration through resource loading of IMS schedules and leveling of schedules is also required. Expertise in the use of Earned Value Management techniques to perform schedule performance is required. Personnel are required to be self-motivated team players familiar with working in a dynamic work environment.

APO Vehicle Integration (VI) Schedule support

Senior personnel shall (b)(4)

(b)(4)

(b)(4)

Personnel shall have a thorough comprehension of planning and scheduling of NASA projects as well as an understanding of the application of Critical Path Method (CPM) scheduling principles, concepts, and techniques. Experience in cost & schedule integration through resource loading and leveling of schedules and the use of Earned Value Management techniques to perform schedule performance assessments is required. Expertise in the development of project-level schedules and in cost is required. Personnel are required to be self-motivated team players familiar with working in a dynamic work environment.

3.4 Subelement CC: Upper Stage Element Office Support

This subelement was closed in Revision 17.

Senior personnel (b)(4)

(b)(4)

(b)(4)

Personnel shall have a thorough comprehension of planning and scheduling of NASA projects as well as an understanding of the application of Critical Path Method (CPM) scheduling principles, concepts, and techniques. Experience in cost & schedule integration through resource loading and leveling of schedules and the use of Earned Value Management techniques to perform schedule performance assessments is required. Expertise in the development of project-level as well as subsystem-level schedules is required. Personnel are required to be self-motivated team players familiar with working in a dynamic work environment.

3.5 Subelement CD: Ares I-X and Ares I-X AIS Schedule Support

This subelement was closed in Revision 17.

Senior personnel shall have a (b)(4)

(b)(4)

(b)(4)

Personnel shall have a thorough comprehension of planning and scheduling of NASA projects as well as an understanding of the application of Critical Path Method (CPM) scheduling principles, concepts, and techniques. Experience in cost & schedule integration through resource loading and leveling of schedules is also required. Experience in cost & schedule integration through resource loading and leveling of schedules and the use of Earned Value Management techniques to perform schedule performance assessments is required. Personnel are required to be self-motivated team players familiar with working in a dynamic work environment.

3.6 Subelement CE: FITO Ground Vibration (GVT) Test Schedule Support

This subelement was closed in Revision 17.

Personnel shall have a (b)(4)

(b)(4)

(b)(4)

A thorough understanding of project planning & scheduling processes as well as practical experience using Critical Path Method (CPM) scheduling principles, concepts, and techniques are required. (b)(4) of experience working with scheduling software applications such as Microsoft Project, Primavera, and/or Open Plan is required. Proven ability to perform project forecasting,

trending, estimating, analysis, and internal/external reporting is required. Working knowledge of Earned Value Management (EVM) is highly desired. Advanced proficiency using Microsoft Office suite applications is preferred. Experience working in a fast-paced technical environment, the ability to multi-task and meet demanding deadlines, and experience using Lean Six Sigma are all highly desired.

3.7 Subelement CF: FITO Schedule Support

This subelement was closed in Revision 17.

Senior personnel shall have a (b)(4) [redacted]
 (b)(4) [redacted]
 (b)(4) [redacted] Personnel shall have a thorough comprehension of planning and scheduling of NASA projects as well as an understanding of the application of Critical Path Method (CPM) scheduling principles, concepts, and techniques. Experience in cost & schedule integration through resource loading and leveling of schedules and the use of Earned Value Management techniques to perform schedule performance assessments is required. Experience with flight test programs is desired. Personnel are required to be self-motivated team players familiar with working in a dynamic work environment.

4.0 Special Tools Required

None

5.0 Participating Subcontractors

(b)(4) [redacted]

6.0 Milestones & Deliverables

Task Product Descriptions	Due Date
Weekly schedule updates and analysis	Weekly
Weekly Element IMS report	Weekly
Perform horizontal and vertical integration trace between Element(s) schedules and Project IMS.	Weekly
Schedule health checks performance audit	Monthly
Monthly Element Schedule Report	Monthly
Project "What If" scenario analysis	As needed
Analysis of externally-provided project schedules	As needed
Participate in APO/MSFC special teams	As needed

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

7.1 Subelement AA: Ares V Schedule Support: Estimated travel cost for support of Project Planning and Schedule meetings, Technical Interchange Meetings (TIMs), and Programmatic Reviews. Estimated ODC cost for training, conferences, and recruitment as required.

7.2 Subelement CB: VIO Schedule Integration and VI Schedule Support: *Closed in Revision 17.* Estimated travel cost for support of Project Planning and Schedule meetings, Technical

Interchange Meetings (TIMs), and Programmatic Reviews. Estimated ODC cost for training, conferences, and recruitment as required.

7.3 Subelement CC: US Schedule Support: Closed in Revision 17. Estimated travel cost for support of Project Planning and Schedule meetings, Technical Interchange Meetings (TIMs), and Programmatic Reviews. Estimated ODC cost for training, conferences, and recruitment as required.

7.4 Subelement CD: Ares I-X Schedule Support: Closed in Revision 17. Estimated travel cost for support of Project Planning and Schedule meetings, Technical Interchange Meetings (TIMs), and Programmatic Reviews.

7.5 Subelement CE: FITO GVT Schedule Support: Closed in Revision 17. Estimated travel cost for support of Project Planning and Schedule meetings, Technical Interchange Meetings (TIMs), and Programmatic Reviews. Estimated ODC cost for training, conferences, and recruitment as required.

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
TBD	None identified at this time		

ESTS Contract Task Order Request Performance Plan

Task Order Title: [Ares Projects Office \(APO\) Business Management and Schedule Support](#)

Task Order Number: [45-000201](#) Revision: 17

Category	Weighting Technical %	End of Period Technical Score
Technical Objectives	50%	X 50% = Justification
Provide expert scheduling support to the Ares Projects Office in the following area: - Ares V schedule support		
Schedule Objectives (Milestones)	Weighting Schedule % 25% (min 10%)	Schedule Score X 25% = Justification
Timely schedule development, updates, analyses, and assessments. - Weekly schedule updates and analysis - Project "What If" scenario analysis, as needed - Analysis of externally-provided project schedules, as needed - Participate in Ares/MSFC special resource & schedule planning teams, as needed		
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

Task Order Number: [Ares Projects Office \(APO\) Business Management and Schedule Support](#)

Task Order Number: [45-000201](#) Revision: [17](#)

Comments:

Risk Assessment

Contract Number: NNM05AB50C

TO Title: Ares Projects Office (APO) Business Management and Schedule Support

TO Number: 45-000201 **Revision:** 17

Period of Performance: 10/02/2010 to 9/30/2011

MSFC Initiator: Melanie Aldridge

(b)(4)

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.

Risk	Risk Type	Probability (1-4)	Impact (1-4)	Risk Description
Risk C1	Cost			None Identified
Risk C2	Cost			
Risk T1	Technical			None Identified
Risk T2	Technical			
Risk S1	Schedule			None Identified
Risk S2	Schedule			

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



