

# MISSION SUPPORT ALLIANCE

"WE WILL MEASURE OUR SUCCESS BY OUR CUSTOMERS' SUCCESS"



# Monthly Performance Report November 2016

**W. K. Johnson**  
**President**

U.S. Department of Energy  
Contract DE-AC06-09RL14728



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This list of acronyms is intended as a reference for the reader to provide definitions that are not readily available away from the Hanford Site.

## TERMS

AMB	Assistant Manager for Business and Financial Operations
AMMS	Assistant Manager for Mission Support
AMRP	Assistant Manager for River and Plateau
AMSE	Assistant Manager for Safety and Environment
BCR	Baseline Change Request
BO	Business Operations
CHPRC	CH2MHILL Plateau Remediation Company
CTD	Cost-to-Date
CV	Cost Variance
DART	Days Away Restricted Transferred
DLA	Direct Labor Adder
DOE	U.S. Department of Energy
ECOLOGY	State of Washington, Department of Ecology
EM	Office of Environmental Management
ES	Emergency Services
ES&H	Environment, Safety, and Health
FY	Fiscal Year
FYTD	Fiscal Year to Date
HAMMER	Volpentest Hazardous Materials Management and Emergency Response Training and Education Center
HCAB	Hanford Contract Alignment Board
HLAN	Hanford Local Area Network
HQ	Headquarters
HRIP	Hanford Radiological Instrumentation Program
HSPD	Homeland Security Presidential Directive
IH	Industrial Hygiene
IM	Information Management
IIP	Integrated Investment Portfolio
ISAP	Infrastructure and Services Alignment Plan
ISMS	Integrated Safety Management System
LMSI	Lockheed Martin Services, Inc.
MSA	Mission Support Alliance, LLC
MSC	Mission Support Contract

# ACRONYMS LISTING



NEPA	National Environmental Policy Act
OCCB	Operational Change Control Board
ORP	Office of River Protection
PFM	Portfolio Management
PFPP	Plutonium Finishing Plant
PMB	Performance Measurement Baseline
PMTO	Portfolio Management Task Order
PNNL	Pacific Northwest National Laboratory
PO	Presidents Office
POSP	Parent Organization Support Plan
PPE	Personal Protection Equipment
PTA	Patrol Training Academy
PW	Public Works
RHP	Risk Handling Plan
RL	Richland Operations Office
SAS	Safeguards & Security
SS&IM	Site Services and Interface Management
SV	Scheduled Variance
T&CO	Training and Conduct of Operations
TRC	Total Recordable Case
UBS	Usage-Based Services
VoIP	Voice over Internet Protocol
VPP	Voluntary Protection Program
WBS	Work Breakdown Structure



## 1.0 INTRODUCTION

The Executive Overview section is intended to provide an executive-level performance overview. Included herein are descriptions of the Mission Support Alliance, LLC (MSA) significant accomplishments considered to have made the greatest contribution toward safe, environmentally sound, and cost-effective, mission-oriented services; progress against the contract with U.S. Department of Energy (DOE) Richland Operations Office (RL); project cost summary analysis; and overviews of safety. Unless otherwise noted, all data provided is through November 2016.

### 1.1 KEY ACCOMPLISHMENTS

**Archaeological Survey Report Completed** – MSA Public Safety & Resource Protection (PSRP) Cultural and Historic Resource Program (CHRP), completed and delivered the archaeological survey report to U.S. Fish and Wildlife Service (USFWS) on November 29, 2016. The CHRP conducted an archaeological survey of 4,650 acres on the Hanford Reach National Monument in support of a large scale reseeding effort by the USFWS. The CHRP archaeologists recorded over 200 previously unrecorded archaeological sites and over 150 isolated artifacts during the course of the survey.

**Hanford Fiscal Year, First Quarter Limited Exercise** – MSA Emergency Management Program (EMP) personnel developed and safely conducted the Hanford FY 2017 1<sup>st</sup> Quarter Limited Exercise on November 17, 2016, at the Waste Encapsulation and Storage facility. Collaborating with CH2M Hill Plateau Remediation Company, (CHPRC) staff, EMP developed a realistic exercise that enabled CHPRC responders, Hanford Patrol, Hanford Fire Department, and the Hanford Emergency Operations Center to practice and demonstrate emergency response readiness. The exercise used multi-contractor and a DOE team to safely control and effectively evaluate response, which meets the DOE Order 151.1C requirement for RL to evaluate the facility emergency response once every three years.

**Safety Reset Held to Re-Focus on Safety** – On Monday, November 28, 2016, following the Thanksgiving holiday, MSA held a company-wide Safety Re-Set. The intent was to have meaningful discussion and engage the workforce in safety conversations to re-set the focus on working safely after a long weekend. Comments, suggestions and concerns were captured and will be analyzed by the senior leadership team. Items will be entered into safety logbooks and tracked to completion, added to the 2017 Safety Improvement Plan, or developed into focused safety messages for delivery throughout 2017.



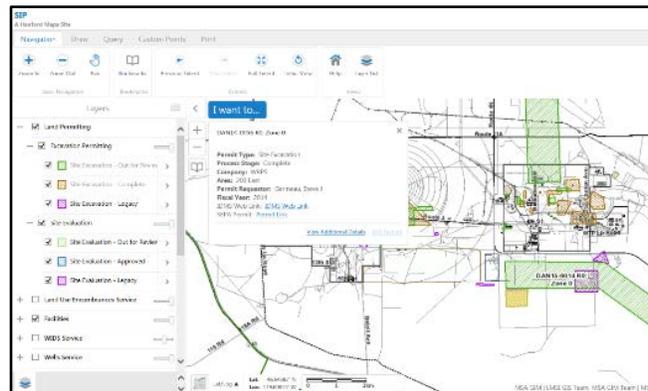
**Training for Bonneville Power Administration** – On November 14-18, 2016, Division of Technical Information (DTI) Training-HAMMER staff provided a 30-hour safety and health training course for 19 Bonneville Power Administration (BPA) personnel. BPA staff provided feedback noting that they'd immediately implemented the training information and lessons learned from training into their daily practices. DTI-HAMMER staff have arranged a follow-up meeting with the BPA training manager to coordinate additional future training opportunities.

**Hanford Tours** – In November, MSA coordinated two Hanford tours on behalf of RL: one, a media visit to the Plutonium Finishing Plant, and the second, a Hanford Site tour for the Seattle Federal Bureau of Investigation (FBI). Support included developing and distributing agendas, facilitating visitor badging and ordering transportation. Support to the Seattle FBI visit also included securing facility briefings, and coordinating logistics for the tour.

**Analytical Tools** – On November 15, and 17, 2016, MSA Portfolio Management (PFM) demonstrated the MSA Integrated Planning Assumption Dataset (MIPAD) tool to RL managers and staff from the Assistant Manager for Mission Support (AMMS), Assistant Manager for River and Plateau (AMRP) organization and the Assistant Manager for Business and Financial Operations (AMB). The new MIPAD tool was developed to integrate project schedules and milestones and to display assumptions and decision data related to MSA's work scope associated with the RL 2016-2028 Vision. It provides users with multiple methods to query and filter integrated project data while enabling them to perform planning case analysis with data accuracy and consistency.

MIPAD displays the impacts of multiple user-defined funding scenarios against the approved baseline by allowing users to apply optional priority order of projects. It also provides a drill-down capability to specified milestones, links to data source documents and the geographic location of the work associated with the milestones by integrating milestone project data with the GeoVis tool. Finally, the MIPAD tool can automatically generate reports from user-defined datasets without the need to format the data, verify accuracy of the data and publish the reports.

**Stewardship Information Portal (SIP)** – MSA Refrigeration Equipment Services (RES) launched the SIP in November. The SIP is a Geographic Information System that utilizes relational data associated with geographic locations to display Site facility and land information. The SIP has numerous information layers, as well as popup screens with web links if users want to quickly drill down and seek more detailed data. This new capability is relatively new to Hanford and will save users significant time when researching information.



Stewardship Information Portal

**Fire Hydrant Repair** – On November 4, 2016, MSA Maintenance Services, with support from Water Utilities and Crane & Rigging, completed repairs to the fire hydrant outside of building 2751E. The hydrant was previously taken out of service when it was damaged during annual testing. The line was flushed/sanitized and bacteria tests were analyzed before the area could be backfilled and the hydrant placed back into operation.



2751E fire hydrant repair

**283W Removal of Asbestos Boards** – On November 10, 2016, Maintenance Services, Water Utilities, Motor Carrier Services, and Crane & Rigging worked to remove asbestos boards at 283W. The ebony asbestos boards were surveyed by Health Physics Technicians, wrapped with two layers of six-millimeter polyethylene, and labeled as asbestos waste. The pipe frames were then cut even with the floor. Riggers hoisted the boards from the second floor into the wooden boxes, and the boxes were labeled for waste disposal.



Asbestos boards removed and wrapped for disposal

**Caterpillar Bulldozers Refurbished** – Fleet Services completed a top to bottom refurbishment of two large Caterpillar bulldozers for Motor Carrier Services. These bulldozers have been utilized in multiple functions over the years and are now used for Wildland Fire support and potentially waste retrieval for CHPRC. The refurbishment saved the DOE from purchasing replacement units at ~\$800,000 each, equating to a cost avoidance exceeding \$1,000,000.

**Air Monitor Brackets for Plutonium Finishing Plant** – MSA Sheet metal Workers, with welder support, fabricated Air Monitor Brackets for the Plutonium Finishing Plant (PFP). This was a high priority request from PFP to support air monitoring activities that will be performed during demolition activities.

**MSA Support to Plutonium Finishing Plant (PFP) Demolition** – MSA Interface Management met with CHPRC’s PFP Demolition Manager on November 15, 2016, to discuss ongoing support from MSA’s Teamsters, Crane & Rigging, and Mechanical Services. MSA continues to support PFP’s ongoing demolition schedule, an effort that requires flexibility in order to meet unexpected demolition delays due to adverse weather conditions.

**Replacing Spool Piece at Canister Storage Building (CSB)** – MSA Water & Sewer



*Replacing spool piece*

Utilities, along with Maintenance Services, worked to replace a spool piece near the CSB. Due to age and its deteriorating condition, replacement was necessary in order to continue to provide the CSB complex with all potable water for domestic use and backup fire water supply. The new piping had to be custom fabricated by MSA pipefitters and welders. The water main was isolated in order for pipefitters to remove and reinstall the new spool piece.



*Old spool piece*

**Right Sizing and Bird Guarding** – In November, MSA Electrical Utilities (EU) Lineman right-sized a transformer bank at the Central Waste Complex (CWC). CWC no longer needed the lights and service panel because they are only required to maintain the air monitor. The new bank was completely bird guarded with caps, wire, and a new fiberglass cross arm.



*Rightsizing transformer bank*

**Annual Network/Application (NetApp) Operating System (OS) Upgrade** – MSA’s NetApp storage team successfully completed the annual OS upgrades. Over the course of two weeks, the team upgraded the OS on all eight NetApp appliances. All upgrades were completed with little to no outages. These upgrades put the appliances at the latest OS, and applied inherent security upgrades and bug fixes.



## 2.0 ANALYSIS OF FUNDS

Table 2-1. Mission Support Alliance, LLC Funds Management (dollars in thousands).

Funds Source PBS	Title	MSA Expected Funding	RL Undistributed Funds	RL/MSA Expected Funding	* Funds Received	FYTD Actuals	Remaining Available Funds from Funds Received
ORP-0014	Radiological Liquid Tank Waste Stabilization and Disposition Operations	\$150.5	\$295.7	\$446.2	\$446.4	\$141.7	\$304.7
HSPD (RL11,12,13,30)	Homeland Security Presidential Directive 12	\$1,144.0	\$0.0	\$1,144.0	\$1,143.9	\$339.5	\$804.4
RL-0020	Safeguards & Security	\$70,619.3	\$6,833.8	\$77,453.1	\$19,853.1	\$9,391.1	\$10,462.0
RL-0040	Reliability Projects/HAMMER/ Inventory	\$53,135.8	\$1,310.4	\$54,446.2	\$9,444.0	\$2,458.8	\$6,985.2
RL-0041	B Reactor	\$6,094.9	\$42.7	\$6,137.6	\$4,438.4	\$537.9	\$3,900.5
SWS	Site-Wide Services	\$209,254.4	\$20,077.3	\$229,331.7	\$63,131.8	\$25,530.2	\$37,601.6
<b>Total</b>		\$340,398.9	\$28,559.9	\$368,958.8	\$98,457.6	\$38,399.2	\$60,058.4

FYTD = Fiscal Year to Date.

HAMMER = Volpentest HAMMER Training and  
Education Center.

PMTO = Portfolio Management Task Order.

EAC = Estimate at Completion.

PBS = Project Baseline Summary.

SWS = Site-Wide Services.

PD = Project Development.

\* Funds received through Contract Modification 567, dated December 12, 2016

The remaining uncosted carryover balance will fund SWS through February 8, 2017 and RL20 through January 19, 2017, based on a burn rate utilizing FYTD 2017 actual costs.



### 3.0 SAFETY PERFORMANCE

MSA experienced no injuries that fell under the classification of “recordable” during the month of November. Therefore, the fiscal year 2017 total recordable case (TRC) and Days Away, Restricted or Transferred (DART) rates are both 0.0 and well below the EM performance goals of 1.1 and 0.60, respectively. At the end of November, MSA had achieved 1.3 million work hours without a lost work day injury.

MSA remains diligent in monitoring First Aid injury cases as these non-reportable precursors are a leading indicator to reportable events. An increase in the number of First Aid cases could indicate a potential increase of more significant incidents. November concluded with eight reported First Aid injury cases which is the same as what was reported in October, and about average for MSA in a given month.

MSA conducted an all-employee “safety reset” on November 28, 2016. This focused activity provided the opportunity for teams to have safety-focused conversations that were tailored to their specific work circumstances and challenges. All organizations lead interactive sessions with their respective workgroups to “reset” safety priorities at work, home and on the road during the holiday season. The goal of the “safety reset” was to help improve MSA’s safety culture by providing a forum for open discussion. Feedback and potential action items will be gathered and responded to in a timely manner.

Table 3-1. Total Recordable Case Rate, (TRC)

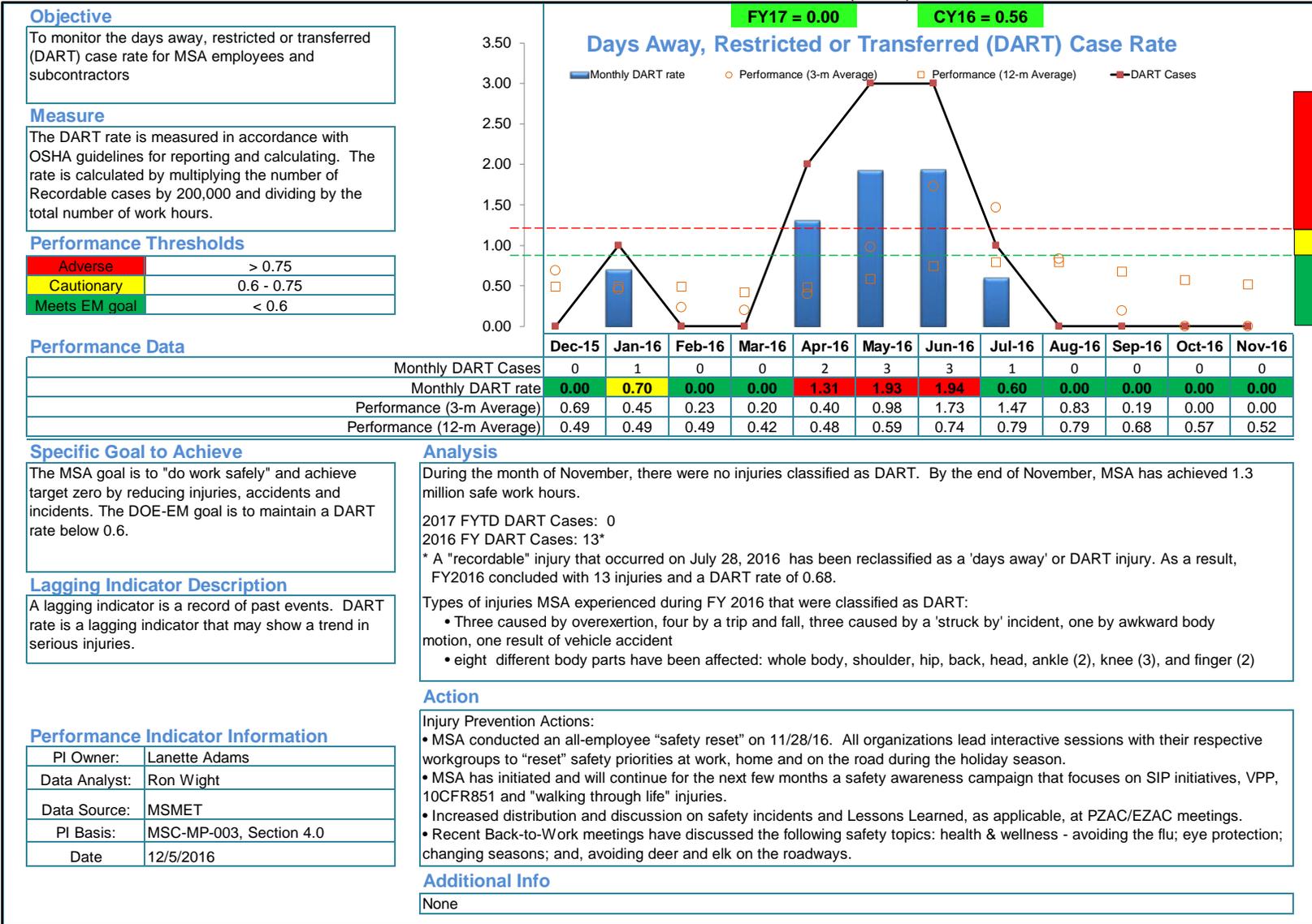


Table 3-2. Days Away, Restricted, Transferred, (DART)

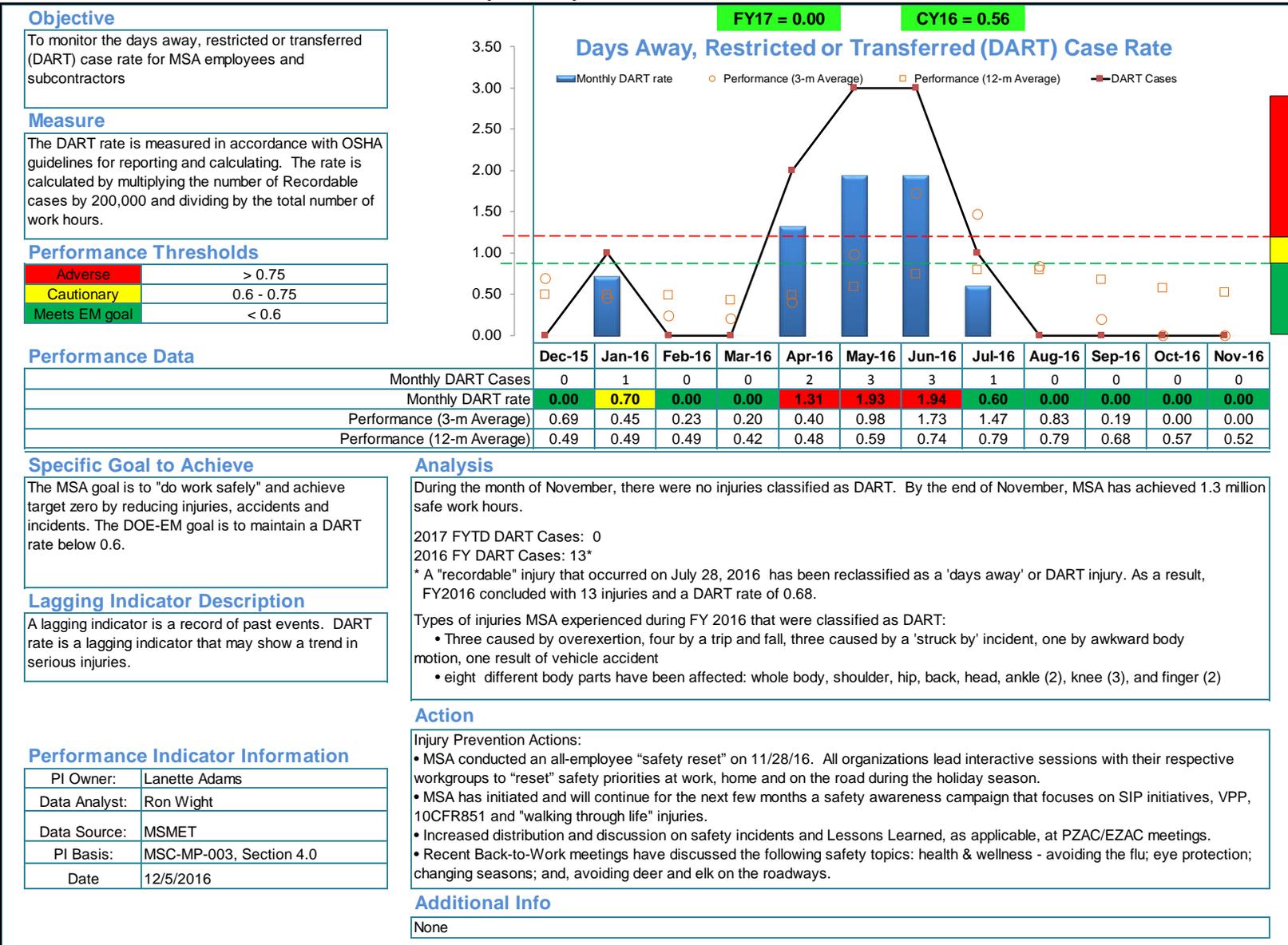




Table 3-3. First-Aid Case Rate

FY17 Rate = 5.18      CY16 Rate = 5.51

**Objective**

To monitor the number of First Aid cases and rate as a leading indicator to days away, restricted, or transferred (DART) and Total Recordable Case (TRC) rates for MSA and subcontractor employees.

**Measure**

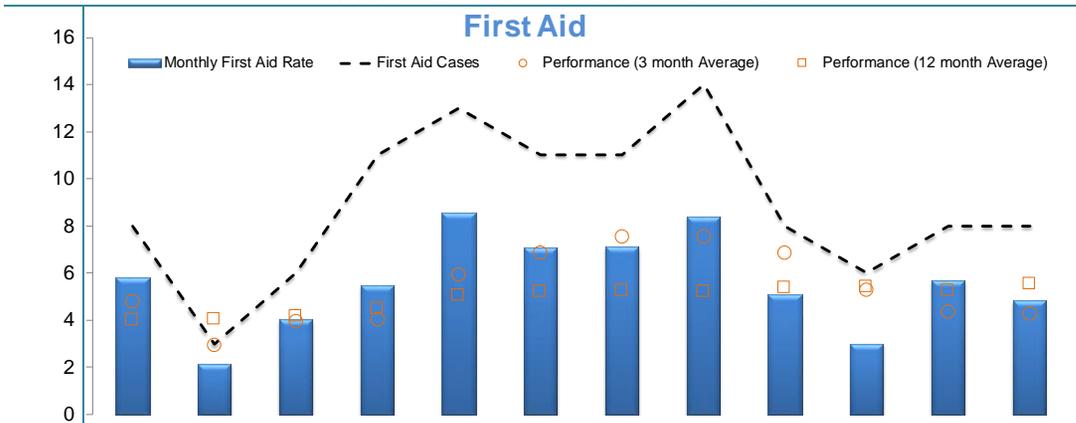
The metric is a count of the number of First Aid cases per month, and the rate of cases. The rate is calculated by multiplying the number of First Aid cases by 200,000 and dividing by the total number of work hours for a given period.

**Performance Thresholds**

Adverse	n/a
Declining	n/a
Meets	n/a

**Performance Data**

	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16
First Aid Cases	8	3	6	11	13	11	11	14	8	6	8	8
Monthly First Aid Rate	5.76	2.11	4.00	5.43	8.51	7.07	7.10	8.37	5.03	2.95	5.64	4.80
Performance (3 month Average)	4.81	2.95	3.94	4.04	5.94	6.85	7.55	7.54	6.86	5.29	4.36	4.30
Performance (12 month Average)	4.01	4.03	4.17	4.47	5.03	5.22	5.24	5.21	5.36	5.40	5.24	5.53



**Specific Goal to Achieve**

The goal is to "do work safely" and achieve target zero by reducing injuries, accidents and incidents while encouraging reporting of all minor injuries.

**Leading Indicator Description**

Non-reportable precursors are a leading indicator to reportable events. An increase in the number of First Aid cases could indicate a potential increase of more significant events.

**Performance Indicator Information**

PI Owner:	Lanette Adams
Data Analyst:	Ron Wight
Data Source:	MSMET
PI Basis:	MSC-MP-003 Sect. 4.0
Date	12/5/2016

**Analysis**

November concluded with eight First Aid injury cases which is about the average number of First Aid cases for MSA in a given month. The cases were a result of the following causes: three cases of employees injured from 'Body Motion'; one case of an employee injured from 'struck against'; one instance of strains from overexertion; one case of an employee injured from 'contact/abrade'; one case of an employee injured from 'insect'; and, one case of an employee injured from 'trip/slip/fall'. The body parts injured included finger (1), knee(2), leg (2), elbow (2) and shoulder (1).

FY2016 First Aid Cases: 104, FY2016 First Aid Case Rate= 5.40  
 Types of injuries MSA experienced during FY 2016 that were classified as First Aid:  
 • 39% by contact with/struck by an object, 37% were caused by overexertion/body motion, 20% by a slip/trip/fall  
 • 40% arm/hand injuries, 31% leg/foot injuries, 16% head/eye injuries, 8% back injuries

**Actions**

Injury Prevention Actions:  
 • MSA conducted an all-employee "safety reset" on 11/28/16. All organizations lead interactive sessions with their respective workgroups to "reset" safety priorities at work, home and on the road during the holiday season.  
 • MSA has initiated and will continue for the next few months a safety awareness campaign that focuses on SIP initiatives, VPP, 10CFR851 and "walking through life" injuries.  
 • Increased distribution and discussion on safety incidents and Lessons Learned, as applicable, at PZAC/EZAC meetings.  
 • Recent Back-to-Work meetings have discussed the following safety topics: health & wellness - avoiding the flu; eye protection; changing seasons; and, avoiding deer and elk on the roadways

**Additional Info**

None



4.0 FORMAT 1, DD FORM 2734/1, WORK BREAKDOWN STRUCTURE

Table 4-1. Format 1, DD Form 2734/1, Work Breakdown Structure

CONTRACT PERFORMANCE REPORT													DOLLARS IN Thousands		FORM APPROVED OMB No. 0704-0188	
FORMAT 1 - WORK BREAKDOWN STRUCTURE																
1. Contractor			2. Contract			3. Program			4. Report Period							
a. Name Mission Support Alliance			a. Name Mission Support Contract			a. Name Mission Support Contract			a. From (2016/10/24)							
b. Location (Address and Zip Code) Richland, WA 99352			b. Number RL14728			b. Phase Operations			b. To (2016/11/20)							
c. TYPE CPAF			d. Share Ratio			c. EVMS ACCEPTANCE No X Yes										
5. CONTRACT DATA																
a. QUANTITY		b. NEGOTIATED COST		c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK		d. TARGET PROFIT/FEE		e. TARGET PRICE		f. ESTIMATED PRICE		g. CONTRACT CEILING		h. ESTIMATED CONTRACT CEILING	i. DATE OF OTB/OTS	
N/A		\$3,421,885		\$0		\$210,082		\$3,631,967		\$3,817,319		N/A		N/A	N/A	
6. ESTIMATED COST AT COMPLETION								7. AUTHORIZED CONTRACTOR REPRESENTATIVE								
			CONTRACT BUDGET BASE (2)		VARIANCE (3)			a. NAME (Last, First, Middle Initial) <i>RE Johnson</i> Johnson, William K			b. TITLE MSC Project Manager					
a. BEST CASE			\$3,421,885					c. SIGNATURE <i>William K Johnson</i>			d. DATE SIGNED 12/27/16					
b. WORST CASE			\$3,787,599													
c. MOST LIKELY			\$3,607,237		3,421,885		(185,352)									
8. PERFORMANCE DATA																
Item (1)	Current Period						Cumulative to Date					At Completion				
	Budgeted Cost		Actual Cost Work Performed (4)	Variance		Budgeted Cost Work Scheduled (7)	Work Performed (8)	Actual Cost Work Performed (9)	Variance		Budgeted (12)	Estimated (13)	Variance (14)			
	Work Scheduled (2)	Work Performed (3)		Schedule (5)	Cost (6)				Schedule (10)	Cost (11)						
a. WORK BREAKDOWN STRUCTURE ELEMENT																
3001.01.01 - Safeguards and Security	4,067	4,067	4,719	0	(651)	412,624	412,624	426,148	0	(13,523)	542,303	566,202	(23,898)			
3001.01.02 - Fire and Emergency Response	1,396	1,396	2,304	0	(908)	143,558	143,558	162,979	(0)	(19,421)	188,038	220,915	(32,877)			
3001.01.03 - Emergency Management	442	442	340	0	102	39,478	39,478	32,930	0	6,548	53,540	45,970	7,570			
3001.01.04 - HAMMER	231	231	530	0	(299)	44,374	44,374	52,264	(0)	(7,890)	51,502	63,996	(12,494)			
3001.01.05 - Emergency Services Management	217	217	378	0	(162)	8,079	8,079	9,129	(0)	(1,051)	12,952	15,599	(2,647)			
3001.02.01 - Site-Wide Safety Standards	27	27	105	0	(78)	4,759	4,759	5,974	(0)	(1,215)	5,621	7,643	(2,022)			
3001.02.02 - Environmental Integration	328	328	382	0	(54)	46,660	46,660	42,256	0	4,404	57,225	55,998	1,228			
3001.02.03 - Public Safety & Resource Protection	845	845	664	0	181	52,632	52,632	46,533	0	6,099	78,150	71,123	7,028			
3001.02.04 - Radiological Site Services	1	1	2	(0)	(1)	3,829	3,829	4,769	0	(940)	3,837	5,307	(1,470)			
3001.02.05 - WSCF Analytical Services	73	73	0	0	73	54,850	54,850	50,457	(0)	4,393	57,139	51,972	5,167			
3001.03.01 - IM Project Planning & Controls	185	185	176	0	9	31,758	31,758	28,115	0	3,643	37,636	33,793	3,843			
3001.03.02 - Information Systems	1,066	1,066	505	0	561	94,494	94,494	90,880	(0)	3,614	127,696	122,118	5,579			
3001.03.03 - Infrastructure / Cyber Security	241	241	253	0	(12)	26,532	26,532	29,502	(0)	(2,970)	33,514	37,148	(3,634)			
3001.03.04 - Content & Records Management	579	579	413	0	166	56,849	56,849	51,660	0	5,189	75,181	69,304	5,876			
3001.03.05 - IR/CM Management	87	87	74	0	13	3,896	3,896	9,774	0	(5,879)	6,654	12,473	(5,819)			
3001.03.06 - Information Support Services	148	148	97	0	51	13,056	13,056	10,054	0	3,001	17,756	14,371	3,385			
3001.04.01 - Roads and Grounds Services	236	236	162	0	74	21,273	21,273	19,321	0	1,951	28,790	27,803	987			
3001.04.02 - Biological Services	272	272	310	0	(37)	25,526	25,526	26,542	0	(1,016)	34,198	36,001	(1,803)			
3001.04.03 - Electrical Services	220	220	1,063	0	(843)	52,365	52,365	75,233	0	(22,868)	68,125	100,903	(32,779)			
3001.04.04 - Water/Sewer Services	571	571	1,271	0	(700)	47,473	47,473	79,384	(0)	(31,911)	65,425	108,364	(42,939)			
3001.04.05 - Facility Services	0	0	0	0	0	7,909	7,909	7,900	0	9	7,909	7,900	9			
3001.04.06 - Transportation	0	0	25	0	(25)	7,974	7,974	9,769	(0)	(1,795)	7,974	10,065	(2,091)			



Table 4-1, cont. Format 1, DD Form 2734/1, Work Breakdown Structure

CONTRACT PERFORMANCE REPORT FORMAT 1 - WORK BREAKDOWN STRUCTURE													DOLLARS IN Thousands		FORM APPROVED OMB No. 0704-0188	
1. Contractor		2. Contract			3. Program			4. Report Period								
a. Name		a. Name			a. Name			a. From (2016/10/24)								
Mission Support Alliance		Mission Support Contract			Mission Support Contract											
b. Location (Address and Zip Code)		b. Number			b. Phase			b. To (2016/11/20)								
Richland, WA 99352		RL14728			Operations											
c. TYPE		d. Share Ratio			c. EVMS ACCEPTANCE											
CPAF					No X Yes											
Item (1)	Current Period					Cumulative to Date					At Completion					
	Budgeted Cost		Actual Cost	Variance		Budgeted Cost		Actual Cost	Variance		Budgeted (12)	Estimated (13)	Variance (14)			
	Work Scheduled (2)	Work Performed (3)	Work Performed (4)	Schedule (5)	Cost (6)	Work Scheduled (7)	Work Performed (8)	Work Performed (9)	Schedule (10)	Cost (11)						
a. WORK BREAKDOWN STRUCTURE ELEMENT (Cont'd)																
3001.04.07 - Fleet Services	48	48	3	0	45	7,196	7,196	7,322	0	(126)	8,729	8,346	383			
3001.04.08 - Crane and Rigging	0	0	0	0	0	2,187	2,187	2,187	(0)	(0)	2,187	2,187	(0)			
3001.04.09 - Railroad Services	0	0	13	0	(13)	370	370	384	(0)	(14)	370	470	(100)			
3001.04.10 - Technical Services	247	247	316	0	(69)	32,461	32,461	34,508	0	(2,048)	40,338	44,287	(3,949)			
3001.04.11 - Energy Management	242	242	149	0	93	13,872	13,872	7,526	(0)	6,346	21,836	14,393	7,442			
3001.04.12 - Hanford Historic Buildings Preservation	174	284	383	110	(99)	19,020	18,836	18,618	(184)	218	22,146	23,017	(871)			
3001.04.13 - Work Management	83	83	431	0	(347)	9,087	9,087	12,526	(0)	(3,439)	11,732	15,929	(4,197)			
3001.04.14 - Land and Facilities Management	503	503	522	0	(19)	36,165	36,165	31,249	(0)	4,916	51,169	46,588	4,581			
3001.04.15 - Mail & Courier	100	100	53	0	47	7,651	7,651	5,356	(0)	2,296	10,829	8,052	2,776			
3001.04.16 - Property Systems/Acquisitons	457	457	537	0	(80)	40,431	40,431	41,225	0	(795)	54,987	56,420	(1,433)			
3001.04.17 - General Supplies Inventory	11	11	(157)	0	168	2,204	2,204	1,229	0	975	2,548	1,458	1,090			
3001.04.18 - Maintenance Management Program Implem	165	165	135	0	30	7,156	7,156	7,486	0	(330)	12,364	12,839	(475)			
3001.06.01 - Business Operations	285	285	534	(0)	(248)	36,094	36,094	3,249	0	32,845	45,160	14,453	30,708			
3001.06.02 - Human Resources	203	203	247	(0)	(44)	17,528	17,528	17,012	(0)	517	23,998	23,757	242			
3001.06.03 - Safety, Health & Quality	987	987	1,282	0	(295)	109,847	109,847	128,565	(0)	(18,719)	141,237	165,633	(24,396)			
3001.06.04 - Miscellaneous Support	601	601	512	0	89	49,885	49,885	37,696	(0)	12,189	69,059	56,451	12,608			
3001.06.05 - Presidents Office (G&A nonPMB)	0	0	0	0	0	16	16	16	0	0	16	16	0			
3001.06.06 - Strategy	0	0	0	0	0	959	959	2,529	0	(1,570)	959	2,529	(1,570)			
3001.07.01 - Portfolio Management	475	475	331	0	144	53,250	53,250	48,064	(0)	5,186	68,573	62,417	6,156			
3001.08.01 - Water System	252	322	438	70	(116)	21,118	20,848	10,664	(270)	10,184	21,663	11,732	9,931			
3001.08.02 - Sewer System	127	92	75	(36)	17	6,347	6,344	9,600	(3)	(3,256)	6,991	10,196	(3,205)			
3001.08.03 - Electrical System	145	102	54	(43)	47	15,232	15,202	16,229	(30)	(1,027)	16,664	17,675	(1,011)			
3001.08.04 - Roads and Grounds	0	102	18	102	84	3,982	3,934	3,276	(48)	659	3,982	3,287	695			
3001.08.05 - Facility System	0	0	0	0	0	5,611	5,611	5,652	(0)	(41)	5,611	5,652	(41)			
3001.08.06 - Reliability Projects Studies & Estimates	311	311	220	0	91	4,502	4,502	6,468	(0)	(1,966)	12,984	15,032	(2,048)			
3001.08.07 - Reliability Project Spare Parts Inventory	0	0	13	0	(13)	86	86	2,419	0	(2,333)	86	2,506	(2,420)			
3001.08.08 - Network & Telecommunications System	429	358	222	(71)	136	10,653	10,516	15,008	(137)	(4,492)	11,203	15,606	(4,403)			
3001.08.09 - Capital Equipment Not Related to Construct	0	0	0	0	0	9,034	9,034	8,844	(0)	190	9,034	8,844	190			
3001.08.10 - WSCF - Projects	0	0	0	0	0	979	979	810	0	169	979	810	169			
3001.08.11 - Support of Infrastructure Interface to ORP	0	0	0	0	0	965	965	725	0	240	965	725	240			
3001.08.12 - Reliability Projects Out Year Planning	0	0	0	0	0	0	0	0	0	0	104,759	104,759	0			
3001.90.04 - MSA Transition	0	0	0	0	0	5,868	5,868	5,868	0	0	5,868	5,868	0			
3001.B1.06 - Projects	0	0	0	0	0	(0)	(0)	0	(0)	(0)	(0)	0	(0)			
b. COST OF MONEY																
c. GENERAL AND ADMINISTRATIVE																
d. UNDISTRIBUTED BUDGET																
e. SUBTOTAL (Performance Measurement Baseline)																
	17,076	17,208	20,102	132	(2,894)	1,729,703	1,729,031	1,763,883	(672)	(34,852)	2,350,193	2,446,904	(96,711)			



Table 4-1, cont. Format 1, DD Form 2734/1, Work Breakdown Structure

CONTRACT PERFORMANCE REPORT FORMAT 1 - WORK BREAKDOWN STRUCTURE														DOLLARS IN Thousands		FORM APPROVED OMB No. 0704-0188	
1. Contractor		2. Contract				3. Program				4. Report Period							
a. Name Mission Support Alliance		a. Name Mission Support Contract				a. Name Mission Support Contract				a. From (2016/10/24)							
b. Location (Address and Zip Code) Richland, WA 99352		b. Number RL14728		b. Phase Operations		b. To (2016/11/20)											
c. TYPE CPAF		d. Share Ratio		c. EVMS ACCEPTANCE No X Yes													
Item (1)	Current Period						Cumulative to Date				At Completion						
	Budgeted Cost		Actual Cost	Variance		Budgeted Cost		Actual Cost	Variance		Budgeted (12)	Estimated (13)	Variance (14)				
	Work Scheduled (2)	Work Performed (3)	Work Performed (4)	Schedule (5)	Cost (6)	Work Scheduled (7)	Work Performed (8)	Work Performed (9)	Schedule (10)	Cost (11)							
a2. WORK BREAKDOWN STRUCTURE ELEMENT																	
3001.01.04 - HAMMER	742	742	1,193	0	(452)	100,313	100,313	100,979	0	(666)	121,238	127,002	(5,764)				
3001.02.04 - Radiological Site Services	1,015	1,015	684	(0)	331	55,927	55,927	39,901	(0)	16,025	87,635	67,765	19,870				
3001.02.05 - WSCF Analytical Services	957	957	0	(0)	957	83,129	83,129	53,176	0	29,953	113,653	73,593	40,060				
3001.03.02 - Information Systems	190	190	230	0	(40)	2,062	2,062	1,937	0	126	8,034	7,912	122				
3001.03.04 - Content & Records Management	63	63	72	0	(8)	645	645	613	0	32	2,670	2,701	(31)				
3001.03.06 - Information Support Services	0	0	0	0	0	4,726	4,726	4,043	(0)	683	4,726	4,043	683				
3001.03.07 - Information Technology Services	2,328	2,328	2,397	(0)	(69)	14,423	14,423	14,799	(0)	(377)	87,530	88,679	(1,149)				
3001.04.05 - Facility Services	545	545	895	0	(350)	47,279	47,279	52,947	0	(5,668)	64,312	73,625	(9,313)				
3001.04.06 - Transportation	147	147	447	0	(300)	19,926	19,926	34,070	0	(14,144)	24,570	42,303	(17,732)				
3001.04.07 - Fleet Services	628	628	1,307	0	(680)	83,467	83,467	100,033	0	(16,566)	102,971	124,985	(22,014)				
3001.04.08 - Crane and Rigging	766	766	1,034	(0)	(268)	81,697	81,697	87,396	0	(5,699)	106,027	114,633	(8,606)				
3001.04.10 - Technical Services	5	5	145	0	(141)	9	9	1,281	0	(1,273)	149	3,735	(3,586)				
3001.04.13 - Work Management	0	0	59	0	(59)	595	595	2,783	0	(2,188)	595	3,348	(2,753)				
3001.04.14 - Land and Facilities Management	569	569	807	0	(238)	47,501	47,501	46,462	(0)	1,039	65,481	65,778	(297)				
3001.04.15 - Mail & Courier	17	17	16	0	0	1,060	1,060	1,102	0	(42)	1,590	1,654	(65)				
3001.06.01 - Business Operations	725	725	760	(0)	(35)	78,634	78,634	83,039	(0)	(4,405)	101,571	107,962	(6,391)				
3001.06.02 - Human Resources	137	137	279	(0)	(142)	15,884	15,884	20,985	(0)	(5,101)	20,209	27,065	(6,855)				
3001.06.03 - Safety, Health & Quality	151	151	164	(0)	(12)	12,344	12,344	9,880	(0)	2,464	17,156	14,951	2,205				
3001.06.04 - Miscellaneous Support	69	69	117	(0)	(48)	9,101	9,101	11,194	(0)	(2,093)	11,298	14,337	(3,039)				
3001.06.05 - Presidents Office (G&A nonPMB)	285	285	291	(0)	(6)	22,982	22,982	18,803	(0)	4,179	32,001	27,455	4,546				
3001.06.06 - Strategy	21	21	26	0	(5)	2,788	2,788	2,421	(0)	367	3,456	3,074	381				
3001.A1.01 - Transfer - CHPRC	5,500	5,500	5,242	0	258	578,844	578,844	509,653	0	69,191	750,618	681,930	68,688				
3001.A1.02 - Transfer - WRPS	1,115	1,115	3,975	0	(2,860)	117,862	117,862	181,893	0	(64,031)	152,357	248,401	(96,044)				
3001.A1.03 - Transfers - FH Closeout	0	0	6	0	(6)	175	175	207	0	(32)	184	258	(74)				
3001.A1.04 - Transfers - CHG Closeout	0	0	0	0	0	12	12	13	0	(0)	12	13	(0)				
3001.A2.01 - Non Transfer - BNI	0	0	18	0	(18)	1,188	1,188	2,829	0	(1,641)	1,188	3,003	(1,815)				
3001.A2.02 - Non Transfer - AMH	12	12	0	0	12	1,560	1,560	954	(0)	606	1,919	1,191	728				
3001.A2.03 - Non Transfer - ATL	15	15	0	0	15	1,068	1,068	702	0	365	1,541	1,013	528				
3001.A2.04 - Non-Transfer - WCH	295	295	(18)	0	313	39,631	39,631	41,554	0	(1,923)	48,597	47,362	1,235				
3001.A2.05 - Non-Transfers - HPM	0	0	49	0	(49)	3	3	1,640	0	(1,636)	3	2,188	(2,185)				
3001.A2.06 - Non-Transfers - BNI Corp	0	0	0	0	0	0	0	1	0	(1)	0	1	(1)				
3001.A2.07 - Non-Transfers-WAI	0	0	22	0	(22)	0	0	323	0	(323)	0	627	(627)				
3001.A4.01 - Request for Services	323	323	532	0	(209)	68,222	68,222	94,513	0	(26,291)	78,442	106,559	(28,118)				
3001.A4.02 - HAMMER RFSS	3	3	442	0	(439)	7,061	7,061	26,943	0	(19,882)	7,149	31,485	(24,335)				
3001.A4.03 - National Guard RFSS	0	0	0	0	0	1,601	1,601	1,550	0	52	1,605	1,552	53				
3001.A4.04 - PNNL RFSS	17	17	45	0	(29)	6,830	6,830	9,948	(0)	(3,118)	7,319	10,700	(3,381)				
3001.A5.01 - RL PD	51	51	31	0	20	2,924	2,924	4,913	0	(1,988)	4,567	6,328	(1,761)				
3001.A5.02 - ORP PD	0	0	56	0	(56)	37	37	6,560	0	(6,523)	37	7,146	(7,110)				



Table 4-1, cont. Format 1, DD Form 2734/1, Work Breakdown Structure

CONTRACT PERFORMANCE REPORT														
FORMAT 1 - WORK BREAKDOWN STRUCTURE														
DOLLARS IN Thousands										FORM APPROVED OMB No. 0704-0188				
1. Contractor		2. Contract			3. Program			4. Report Period						
a. Name		a. Name			a. Name			a. From (2016/10/24)						
b. Location (Address and Zip Code)		b. Number			b. Phase			b. To (2016/11/20)						
c. TYPE		d. Share Ratio			c. EVMS ACCEPTANCE									
Item (1)	Current Period					Cumulative to Date					At Completion			
	Budgeted Cost		Actual Cost	Variance		Budgeted Cost		Actual Cost	Variance		Budgeted (12)	Estimated (13)	Variance (14)	
	Work Scheduled (2)	Work Performed (3)	Work Performed (4)	Schedule (5)	Cost (6)	Work Scheduled (7)	Work Performed (8)	Work Performed (9)	Schedule (10)	Cost (11)				
3001.A5.03 - RL Project Funded	46	46	286	0	(240)	652	652	3,001	0	(2,349)	2,081	6,839	(4,757)	
3001.A5.04 - ORP Project Funded	0	0	128	0	(128)	0	0	1,698	0	(1,698)	0	3,231	(3,231)	
3001.A6.01 - Portfolio PMTOs	0	0	0	0	0	210	210	161	0	49	210	161	49	
3001.A7.01 - G&A Liquidations	(1,405)	(1,405)	(1,961)	0	556	(142,690)	(142,690)	(148,735)	0	6,045	(187,291)	(199,622)	12,331	
3001.A7.02 - DLA Liquidations	(955)	(955)	(1,636)	0	681	(69,998)	(69,998)	(88,889)	(0)	18,891	(99,595)	(125,918)	26,323	
3001.A7.03 - Variable Pools Revenue	(7,012)	(7,012)	(6,859)	0	(153)	(472,306)	(472,306)	(449,733)	0	(22,572)	(691,095)	(670,796)	(20,299)	
3001.B1.01 - UBS Assessments for Other Providers	2	2	0	0	2	113	113	0	0	113	184	0	184	
3001.B1.02 - UBS Other MSC - HAMMER M&O	10	10	0	0	10	515	515	0	(0)	515	843	0	843	
3001.B1.03 - Assessment for Other Provided Services	106	106	0	0	106	5,257	5,257	0	(0)	5,257	8,612	0	8,612	
3001.B1.04 - Assessment for PRC Services to MSC	59	59	0	0	59	3,120	3,120	0	(0)	3,120	4,977	0	4,977	
3001.B1.07 - Request for Services	1	1	0	0	1	245	245	0	(0)	245	274	0	274	
a2. WORK BREAKDOWN STRUCTURE ELEMENT														
b2. COST OF MONEY														
c2. GENERAL AND ADMINISTRATIVE														
d2. UNDISTRIBUTED BUDGET													0	
e2. SUBTOTAL (Non - Performance Measurement)	7,542	7,542	11,281	(0)	(3,739)	836,632	836,632	889,542	0	(52,910)	1,071,609	1,160,250	(88,641)	
f. MANAGEMENT RESERVE											83	83	0	
g. TOTAL	24,618	24,750	31,382	132	(6,632)	2,566,334	2,565,663	2,653,425	(672)	(87,762)	3,421,885	3,607,237	(185,352)	
9. RECONCILIATION TO CONTRACT BUDGET BASE														
a. VARIANCE ADJUSTMENT														
b. TOTAL CONTRACT VARIANCE														



5.0 FORMAT 3, DD FORM 2734/3, BASELINE

Table 5-1. Format 3, DD Form 2734/3, Baseline

CONTRACT PERFORMANCE REPORT																
FORMAT 3 - BASELINE													DOLLARS IN Thousands		FORM APPROVED OMB No. 0704-0188	
<b>1. Contractor</b>			<b>2. Contract</b>			<b>3. Program</b>			<b>4. Report Period</b>							
a. Name			a. Name			a. Name			a. From (2016/10/24)							
Mission Support Alliance			Mission Support Contract			Mission Support Contract			b. To (2016/11/20)							
b. Location (Address and Zip Code)			b. Number			b. Phase										
Richland, WA 99352			RL14728			Operations										
c. TYPE			d. Share Ratio			c. EVMS ACCEPTANCE										
CPAF						No X Yes										
<b>5. CONTRACT DATA</b>																
a. ORIGINAL NEGOTIATED COST			b. NEGOTIATED CONTRACT CHANGES		c. CURRENT NEGOTIATED COST (a+b)		d. ESTIMATED COST OF UNAUTHORIZED UNPRICED WORK			e. CONTRACT BUDGET BASE (C+D)		f. TOTAL ALLOCATED BUDGET		g. DIFFERENCE (E - F)		
\$2,854,966			\$566,919		\$3,421,885		\$0			\$3,421,885		\$3,421,885		\$0		
h. CONTRACT START DATE			i. CONTRACT DEFINITIZATION DATE			j. PLANNED COMPLETION DATE			k. CONTRACT COMPLETION DATE		l. ESTIMATED COMPLETION DATE					
2009/05/24			2009/05/24			2019/05/25			2019/05/25		2019/05/25					
<b>6. PERFORMANCE DATA</b>																
ITEM  (1)	BCWS CUMULATIVE TO DATE (2)	BCWS FOR REPORT PERIOD (3)	BUDGETED COST FOR WORK SCHEDULED (BCWS) (Non-Cumulative)												UNDISTRIBUTED BUDGET (15)	TOTAL BUDGET (16)
			Six Month Forecast By Month													
			Dec FY 17 (4)	Jan FY17 (5)	Feb FY17 (6)	Mar FY17 (7)	Apr FY17 (8)	May FY17 (9)	Jun FY17 (10)	Jul FY17 (11)	Remaining FY17 (12)	FY18 (13)	FY19 (14)			
a. PERFORMANCE MEASUREMENT BASELINE (Beginning of Period)	1,712,627	17,240	18,952	12,767	16,977	20,305	16,308	16,384	19,325	14,810	39,129	307,791	136,925	0	2,349,541	
b. BASELINE CHANGES AUTHORIZED DURING REPORT PERIOD	17,076	(17,240)	0	0	0	0	37	49	58	45	116	341	170	0	652	
a. PERFORMANCE MEASUREMENT BASELINE (End of Period)	1,729,703		18,952	12,767	16,977	20,305	16,345	16,433	19,384	14,855	39,246	308,132	137,095	0	2,350,193	



Table 5-1, cont. Format 3, DD Form 2734/3, Baseline

DOLLARS IN Thousands															FORM APPROVED OMB No. 0704-0188	
1. Contractor		2. Contract			3. Program				4. Report Period							
a. Name Mission Support Alliance		a. Name Mission Support Contract			a. Name Mission Support Contract				a. From (2016/10/24)							
b. Location (Address and Zip Code) Richland, WA 99352		b. Number RL14728			b. Phase Operations				b. To (2016/11/20)							
c. TYPE CPAF		d. Share Ratio			c. EVMS ACCEPTANCE No X Yes											
6. PERFORMANCE DATA																
ITEM	BCWS CUMULATIVE TO DATE (2)	BCWS FOR REPORT PERIOD (3)	BUDGETED COST FOR WORK SCHEDULED (BCWS) (Non-Cumulative)											UNDISTRIBUTED BUDGET (15)	TOTAL BUDGET (16)	
			Six Month Forecast By Month													
			Dec FY 17 (4)	Jan FY17 (5)	Feb FY17 (6)	Mar FY17 (7)	Apr FY17 (8)	May FY17 (9)	Jun FY17 (10)	Jul FY17 (11)	Remaining FY17 (12)	FY18 (13)	FY19 (14)			
a2. NON - PERFORMANCE MEASUREMENT BASELINE (Beginning of Period)	829,090	7,542	8,370	5,517	7,770	9,103	7,479	7,534	8,998	6,751	18,016	92,834	62,608	0	1,071,610	
b2. BASELINE CHANGES AUTHORIZED DURING REPORT PERIOD	7,542	(7,542)	0	0	0	0	0	0	0	0	0	(0)	(0)	0	(0)	
a2. NON - PERFORMANCE MEASUREMENT BASELINE (End of Period)	836,632		8,370	5,517	7,770	9,103	7,479	7,534	8,998	6,751	18,016	92,834	62,608	0	1,071,609	
7. MANAGEMENT RESERVE															83	
8. TOTAL	2,566,334	0	27,322	18,284	24,746	29,408	23,824	23,968	28,381	21,606	57,261	400,966	199,702	0	3,421,885	



6.0 FORMAT 5, DD FORM 2734/5, EXPLANATIONS AND PROBLEM ANALYSIS

Table 6-1, Format 5, DD Form 2734/5, Explanations and Problem Analysis

Contract Performance Report Format 5			
1. Contractor	2. Contract	3. Program	4. Report Period
a. Name Mission Support Alliance	a. Name Mission Support Contract	a. Name Mission Support Contract	a. From (2016/10/24)
b. Location (Address and Zip Code) Richland, WA 99352	b. Number RL14728	b. Phase Operations	b. To (2016/11/20)
	c. Type CPAF	d. Share Ratio c. EVMS Acceptance NO X YES	

5. Evaluation

**Explanation of Variance /Description of Problem:**

**Current Month Cost Variance (CV):**

**3001.01.01 Safeguards and Security** – Unfavorable CM CV is due to implementation of the Graded Security Protection Policy that significantly increased manpower requirements and the bid assumption that the Spent Nuclear Material (SNM) would be shipped off the Hanford site by year 3. This policy was subsequent to the MSA baseline proposal and implementation.

**3001.01.02 Fire and Emergency Response** – Unfavorable CM CV is primarily due to the approved Integrated Investment Portfolio (IIP) funded scope being divergent from the contract baseline because of a budgeting omission for platoon shift hours in the Hanford Fire Department as well as the bid assumption that multiple fire stations would have been closed.

**3001.01.04 HAMMER** – Unfavorable CM CV is due to the assumption that less Environmental Management (EM) funding would be required because HAMMER could self-fund itself by performing enough services for non-Hanford entities. This assumption that was included in the proposal has not occurred. As a result, the EM budget will remain lower than the EM funds authorized. This divergent situation has remained and continued to increase the FY 2017 CV. Services delivered at HAMMER have not been adversely affected because the services are executed consistent with the approved IIP scope.

**3001.03.02 Information System** – Favorable CM CV is due to cost savings associated with the self-performance of Software Engineering Services.

**3001.04.03 Electrical Services** – Unfavorable CM CV is due to staffing levels that are currently higher than the baseline due to additional maintenance activities required to maintain the electrical distribution system. The system has degraded across the site due to age. Electrical Services is part of the Enhanced Maintenance Program, and has compliance issues that have increased the cost to the program.

**3001.04.04 Water/Sewer Services** – Unfavorable CM CV is due to staffing levels that are currently higher than the baseline due to additional maintenance activities required to maintain the water and sewer distribution system. The system has degraded across the site due to age. Water & Sewer Utilities (W&SU) is part of the Enhanced Maintenance Program, and has compliance issues that have increased the cost to the program.



Table 6-1, cont. Format 5, DD Form 2734/5, Explanations and Problem Analysis

1. Contractor	2. Contract	3. Program	4. Report Period
a. Name Mission Support Alliance	a. Name Mission Support Contract	a. Name Mission Support Contract	a. From (2016/10/24)
b. Location (Address and Zip Code) Richland, WA 99352	b. Number RL14728	b. Phase Operations	b. To (2016/11/20)
	c. Type CPAF	d. Share Ratio	

**3001.04.13 Work Management** – Unfavorable CM CV is primarily due to the approved funding and priority list scope being divergent from the contract baseline.

**3001.06.03 Safety, Health & Quality** – Unfavorable CM CV is primarily due to the IIP scope and approved funding increases in the Radiation Protection and Worker Safety & Health. Since fiscal year IIP/funding authorizations adjust for these differences, no mitigations are planned at this time.

**3001.A1 – 3001.B1 Non-PMB** – Unfavorable CM CV is primarily due to RL approved funding and priority scope being divergent from the baseline for Request for Service (RFS) and Inter-Contractor Work Order (ICWO) activities.

**Impacts – Current Month Cost Variance:**  
MSA has operated at authorized FY 2017 funding levels that exceed the contract budget. There are no impacts associated with this CM negative CV.

**Corrective Action – Current Month Cost Variance:** None

**Current Month Schedule Variance:**

**3001.04.12 Hanford Historic Buildings Preservation** –No BCWS remains because the project has been delayed beyond the scheduled completion date. CM progress was made and earned value taken. The result is a favorable CM SV.

**3001.08.01 Water System** – Favorable CM SV is due to the construction subcontractor performing the pipeline testing and punch list items ahead of schedule.

**3001.08.04 Roads and Grounds** – Favorable CM SV is due to roads projects L-775, “Chip Seal Rt 4S Canton Ave to Y Barricade,” L-776, “Chip Sl Rt 4S Y Brrcd to 618 Wst St Ntrnc,” and L-777, “Chip Seal Rt 4S, 618-10 Wst Site to HR Rd,” completing project design ahead of schedule.

**3001.08.08 Network & Telecommunications System** – Unfavorable CM SV is due to the construction mobilization being behind schedule, and a delay in procuring office and break space for project L-761, “Phase 2a Procure, Install, & Closeout.”

**Impacts – Current Month Schedule Variance:** Impacts are minimal because each Reliability Project is an independent stand-alone project.

**Corrective Action – Current Month Schedule Variance:** None.

**Cumulative Cost Variance:** Several key areas contributing to the Cumulative-to-Date CV (CTD CV) are as follows:



Table 6-1, cont. Format 5, DD Form 2734/5, Explanations and Problem Analysis

1. Contractor	2. Contract	3. Program	4. Report Period
a. Name Mission Support Alliance	a. Name Mission Support Contract	a. Name Mission Support Contract	a. From (2016/10/24)
b. Location (Address and Zip Code) Richland, WA 99352	b. Number - RL14728	b. Phase - Operations	b. To (2016/11/20)
	c. Type CPAF	d. Share Ratio c. EVMS Acceptance NO X YES	

**Fiscal Year Funding Authorizations:** During October of 2011, MSA completed re-aligning the baseline to the negotiated contract, and by using the approved change control process, implemented the re-aligned baseline data for the start of 2012. RL provided approval of the baseline data for reporting progress, and also provided an approved and funded priority list of items for MSA work scope. The CTD CV is primarily due to RL approved funding and priority list scope being divergent from the baseline for FY 2013, FY 2014, FY 2015, FY 2016 and FY 2017.

**Labor and Pension costs:** After the original submittal of the Forward Pricing Rates (FPR), it was determined that MSA had incorrectly factored the cost of the Hanford Site Pension Plan (HSPP) and the Hanford Employee Welfare Trust (HEWT) into the labor rates. This was disclosed to MSA in the Source Selection Evaluations Board’s (SEB) Debrief of the Mission Support Contract (MSC) in May 2009. MSA received contract modifications associated with pension cost and labor adder adjustments for FY 2009 through FY 2015, which increased the contract value. At the request of RL, the labor and pension proposals are submitted annually at fiscal year-end. The variances associated with labor and pension impacts all WBS elements that include labor.

**3001.01.01 Safeguards and Security:** Unfavorable CTD CV is primarily due to differences in the baseline budgeting and fiscal year IIP authorizations. For example, Safeguards and Security included a baseline planning assumption that a Graded Security Policy could be implemented at a reduced cost and the bid assumption that Spent Nuclear Material (SNM) would be shipped off the Hanford site by year 3. Since fiscal year IIP/funding authorizations adjust for these differences, no mitigating actions are in place at this time to reduce the overall cost variance.

**3001.01.02 Fire & Emergency Response:** Unfavorable CTD CV is primarily due to a budgeting omission for platoon shift hours in the Hanford Fire Department as well as the bid assumption that multiple fire stations would have been closed. Since fiscal year IIP/funding authorizations adjust for these differences, no mitigating actions are in place at this time to reduce the overall CV.

**3001.01.03 Emergency Management:** Favorable CTD CV is because work being performed according to RL-directed Contract Baseline Alignment Guidance (CBAG) provides for MSA/RL agreed scope, and a spending target that is different than the Contract Baseline Budget. No mitigating actions are required at this time.

**3001.01.04 HAMMER:** Unfavorable CTD CV is predominantly due to the assumption that less EM funding would be required because HAMMER could self-fund itself by performing enough services for non-Hanford entities. This assumption has not occurred. As a result of this inaccurate assumption, the EM budget will remain lower than the EM funds authorized. Because of this divergent situation, the CTD CV will continue to increase. Services delivered at HAMMER will not be adversely affected because the services are executed consistent with the approved fiscal year IIP/funding. No other potential contributing performance issues were identified.



Table 6-1, cont. Format 5, DD Form 2734/5, Explanations and Problem Analysis.

1. Contractor	2. Contract		3. Program	4. Report Period
a. Name Mission Support Alliance	a. Name Mission Support Contract		a. Name Mission Support Contract	a. From (2016/10/24)
b. Location (Address and Zip Code) Richland, WA 99352	b. Number - RL14728		b. Phase - Operations	b. To (2016/11/20)
	c. Type CPAF	d. Share Ratio	c. EVMS Acceptance NO X    YES	
<p><b>3001.02.03 Public Safety &amp; Resource Protection (PSRP):</b> Favorable CTD CV is primarily due to the approved funding and IIP scope being divergent from the baseline for PSRP. No mitigating actions are required at this time.</p> <p><b>3001.03.04 Contents &amp; Records Management:</b> Favorable CTD CV is primarily due to the approved funding and IIP scope being divergent from the baseline, but is also due to the cost savings associated with self-performance of the records scope, and a reduction in system administration/software engineering costs from the self-performance of software engineering services.</p> <p><b>3001.03.05 IR/CM Management:</b> Unfavorable CTD CV is primarily due to the approved funding and IIP scope being divergent from the baseline, but is also due to the unplanned Information Technology (IT) subcontract transition effort and related software costs.</p> <p><b>3001.04.03/04 Electrical/Water &amp; Sewer Services:</b> Unfavorable CTD CV is primarily due to the aging life of the infrastructure on the Hanford Site. More staffing and material procurements than included in the baseline have been authorized through the fiscal year IIP/funding process. These changes have resulted in increased costs for infrastructure repairs, compliance issues, and maintenance activities. In addition, an enhanced maintenance program has been established to better predict future system failures, and predictive maintenance is replacing the preventative maintenance method. Since fiscal year IIP/funding authorizations adjust for these differences, no mitigations are planned at this time.</p> <p><b>3001.04.11 Energy Management:</b> Favorable CTD CV is primarily due to the approved funding and IIP scope being divergent from the baseline for Energy Management. No mitigating actions are required at this time.</p> <p><b>3001.06.01 Business Operations:</b> Favorable CTD CV is primarily due to credits associated with affiliate fee on IT scope and training on overtime pending final resolution.</p> <p><b>3001.06.03 Safety, Health &amp; Quality:</b> Unfavorable CTD CV is primarily due to the IIP scope and approved funding increases in the Radiation Protection, Worker Safety &amp; Health, and Beryllium accounts. Since fiscal year IIP/funding authorizations adjust for these differences, no mitigations are planned at this time.</p> <p><b>3001.06.04 Miscellaneous Support:</b> Favorable CTD CV is primarily due to MSA Engineering approved funding and IIP being divergent from the contract baseline. Through the annual IIP process, the MSA Engineering organization was authorized/funded to perform much less work than planned in the baseline.</p> <p><b>3001.07.01 Portfolio Management:</b> Favorable CTD CV is primarily due to less Portfolio Management support required than assumed for integrated planning actions.</p>				



Table 6-1, cont. Format 5, DD Form 2734/5, Explanations and Problem Analysis

1. Contractor	2. Contract		3. Program	4. Report Period
a. Name Mission Support Alliance	a. Name Mission Support Contract		a. Name Mission Support Contract	a. From (2016/10/24)
b. Location (Address and Zip Code) Richland, WA 99352	b. Number - RL14728		b. Phase - Operations	b. To (2016/11/20)
	c. Type CPAF	d. Share Ratio	c. EVMS Acceptance NO X YES	

**3001.08.01 Water System:** Favorable CTD CV is due to projects L-525, "24in Line Replacement from 2901Y to 200E" & L-840, "24in Line Replacement from 2901Y to 200W" awarding the construction subcontracts for significantly less than initially estimated. The significant construction cost savings is attributable to the contractor's expertise in this type of construction and significantly less difficult site conditions encountered than were assumed when preparing the initial cost estimate. In addition previously reported projects L-399 "T-Plant Potable & Raw Water Line Rest" and L-311 "200W Raw Water Reservoir Refurbish" contributed to this positive variance.

**3001.A1 – 3001.B1 Non-PMB:** Unfavorable CTD CV is primarily due to other Hanford contractors and government agencies requesting more usage-based services (i.e., Training, Crane & Rigging, Fleet Services, Occupancy, etc.) than planned in the baseline. Since this work scope is providing services as requested, and is fully authorized through the Inter-Contract Work Orders/Request for Services process, no mitigations are planned at this time. Note that for the Non-PMB, the WBS elements 3001.01.04 - 3001.06.06 represent the Usage-Based Pool, General and Administrative (G&A), and Direct Labor Adder (DLA) accounts which are offset by the liquidation of services to customers as identified with WBS 3001.A7.01 – 3001.A7.03.

**Impacts - Cumulative Cost Variance:** CTD CV is primarily due to approved funding and priority list scope being divergent from the baseline during FY 2013 – FY 2017. Because the work scope is primarily level of effort, the CTD CV is not a predictive indicator for future performance. The amount of support provided in the future will be dependent upon the RL approved funding and priority list scope.

**Corrective Action - Cumulative Cost Variance:**

For FY 2009 – FY 2012, MSA has incorporated negotiated contract variance proposals into the contract baseline. For FY 2013 through FY 2017, MSA will continue to monitor the delta values between the contract baseline and RL funding values to determine if change proposals are warranted. Until then, the divergent data will continue.

**Cumulative Schedule Variance:**

**3001.04.12 Hanford Historic Buildings –** Unfavorable CTD SV is primarily due to the release of the sub-tier masonry contractor because it could not meet requirements of the Historic Treatment Plan. Additional SV is due to the bid, submittal and training process for the replacement masonry contractor. Construction was further delayed due to the masonry contractor's inability to meet construction material requirements set by the historic A/E.

**3001.08.01 Water System –** Unfavorable CTD SV is due to engineering design completing behind schedule which impacted successor activities that led to delays in material delivery of valves/actuators and control panels, and delays to work performance due to Filter Plant issues on project L-830, "Filter Plant Filter Control System Upgrade."



Table 6-1, cont. Format 5, DD Form 2734/5, Explanations and Problem Analysis

1. Contractor	2. Contract	3. Program	4. Report Period
a. Name Mission Support Alliance	a. Name Mission Support Contract	a. Name Mission Support Contract	a. From (2016/10/24)
b. Location (Address and Zip Code) Richland, WA 99352	b. Number - RL14728	b. Phase - Operations	b. To (2016/11/20)

**3001.08.08 Network & Telecommunications System** – Unfavorable CTD SV is due to the construction mobilization being behind schedule, and a delay in procuring office and break space for project L-761, “Phase 2a Procure, Install & Closeout.”

**Impacts - Cumulative Schedule Variance:** Hanford Historic Buildings Preservation – This project will finish behind schedule, but impacts to Reliability Projects are minimal because each is an independent stand-alone project.

**Corrective Action - Cumulative Schedule Variance:** Hanford Historic Buildings Preservation – no corrective action.

**Variance at Complete:**  
 During October of 2011, MSA completed re-aligning the baseline to the negotiated contract, and using the approved change control process, implemented the re-aligned baseline data for the start of FY 2012. RL provided approval of the baseline data for reporting progress and also provided an approved and funded priority list of items for MSA work scope. The CTD variance is primarily due to the RL approved funding and priority list scope being divergent from the baseline for FY 2013, FY 2014, FY 2015, FY 2016 and FY 2017. After the original submittal of the FPR, it was determined that MSA had incorrectly factored the cost of the Hanford Site Pension Plan (HSPP) and the Hanford Employee Welfare Trust (HEWT) into the labor rates. This was disclosed to MSA in the Source Selection Evaluations Board’s (SEB) Debrief of the Mission Support Contract (MSC) in May 2009. MSA received contract modifications associated with pension cost and labor adder adjustments for FY 2009 through FY 2016 which increased the contract value. At the request of RL, the labor and pension proposals are submitted annually at fiscal year-end. For FY 2017, the labor and pension variances will continue to increase during the remainder of this fiscal year.

**Impacts – At Complete Variance:**  
 CTD CV is primarily due to the approved funding and priority list scope being divergent from the baseline during FY 2013 – FY 2017. Because the work scope is primarily level of effort, the CTD CV is not a predictive indicator for future performance. The amount of support provided in the future will be dependent upon RL approved funding and priority list scope.

**Corrective Action - At Complete Variance:**  
 For FY 2009 – FY 2012, MSA has incorporated negotiated contract variance proposals into the contract baseline. For FY 2013 through FY 2017, MSA will continue to monitor the delta values between the contract baseline and RL funding values to determine if change proposals are warranted. Until then, the divergent data will continue.

**Negotiated Contract Changes:**  
 The Negotiated Contract Cost increased by \$1.0M for November 2016 from \$3,420.9M to \$3,421.9 due to Baseline Change Request (BCR) VMSA-17-005 – Mod 560, *Definitization on Pre-Manhattan Project Facilities Proposal & Change Title of Level 5 WBS* and BCR.



Table 6-1, cont. Format 5, DD Form 2734/5, Explanations and Problem Analysis

1. Contractor	2. Contract	3. Program	4. Report Period
a. Name Mission Support Alliance	a. Name Mission Support Contract	a. Name Mission Support Contract	a. From (2016/10/24)
b. Location (Address and Zip Code) Richland, WA 99352	b. Number - RL14728	b. Phase - Operations	b. To (2016/11/20)

**Changes in Estimated Cost of Authorized / Unpriced Work:** The Authorized Unpriced Work (AUW) decreased for November 2016 from \$0.275M to \$0M due to the implementation of BCR VSWS-17-006, *Remove Budget and Eliminate Authorized Unpriced Work (AUW) Established for Electrical Master Plan.*

**Changes in Estimated Price:**

The Estimated Price of \$3,817.3M is based on the Most Likely Management Estimate at Completion (MEAC) of \$3,607.2M and fee of \$210.1M. The Most Likely MEAC reflects recognition of significant additional work scope in FY 2009 through FY 2012 related to American Recovery and Reinvestment Act of 2009 (ARRA) support activities to site contractors, and other DOE-authorized activities beyond the original contract assumptions. BCRs were implemented for the Cost Variance Contract Modifications received for FY 2009 thru FY 2012 in January 2015. Since FY 2013, FY 2014, FY 2015, and FY 2016 were within a 10 percent variance, proposals have not yet been processed to increase the Negotiated Contract Cost. Since FY 2017, funding is higher than the Contract Budget Base, there is a significant increase for this fiscal year.

**Differences between Current Month and Prior Month EAC's Format 1, Column (13) (e):**

During November 2016, the Estimate at Completion (EAC) increased by \$13.3M from \$3,593.9M to \$3,607.2M; (\$1.0M in the Performance Measurement Baseline (PMB) and \$12.3M in the Non-PMB). Increases in the PMB were primarily due to implementation BCR VMSA-17-005 – *Mod 560, Definitization on Pre-Manhattan Project Facilities Proposal & Change Title of Level 5 WBS.* The Non-PMB increase is due primarily to Other Hanford Contractors, WRPS and CHPRC, requesting more support than planned. The EAC was updated based on the trending for actual costs for FY 2017.

**Changes in Undistributed Budget:** The Undistributed Budget of \$0M did not change this reporting period.

**Changes in Management Reserve:** The Management Reserve of \$0.083M did not change this reporting period.

**Differences in the Performance Measurement Baseline:** This reporting period the Performance Measurement Baseline increased by \$0.7M from \$2,349.5M to \$2,350.2M. The increase was due to the implementation of BCR VMSA-17-005 – *Mod 560, Definitization on Pre-Manhattan Project Facilities Proposal & Change Title of Level 5 WBS,* and BCR VSWS-17-006, *Remove Budget and Eliminate Authorized Unpriced Work (AUW) Established for Electrical Master Plan.*

**Differences in the Non - Performance Measurement Baseline:**

The Non-PMB remained at \$1,071.6M for this reporting period.

**Best/Worst/Most Likely Management Estimate at Completion (MEAC):**

The Best Case MEAC assumes the completion of the approved work scope at the current negotiated contract value consistent with the Contract Budget Base. The Most Likely MEAC reflects the EAC including management reserve. The Worst Case Scenario assumes a five percent increase to the Most Likely MEAC case scenario.



**7.0 USAGE-BASED SERVICES/DIRECT LABOR ADDER SUMMARY**

The Direct Labor Adder (DLA) (motor carrier, facilities and janitorial) collects the cost of centralized management, support from other, craft indirect time, and non-labor cost like facilities maintenance. These costs are distributed via a rate on direct labor. Usage-Based Services (UBS) are services liquidated to customers (internal and external). The UBS cost is associated with a service and distributed on a unit rate to the customer based upon requests (“pay by the drink”).

Table 7-1. Usage-Based Services/Direct Labor Adder Summary (dollars in thousands).

Fiscal Year 2017 to Date – November 2016					
Account Description	BCWS	BCWP	ACWP	CV	Liquidation
Direct Labor Adder					
Software Engineer Services DLA (3001.03.02.03)	\$352.7	\$352.7	\$429.2	\$(76.5)	\$(325.5)
Content & Records Management DLA (3001.03.01.04)	\$118.9	\$118.9	\$120.7	\$(1.8)	\$(101.2)
Transportation DLA (3001.04.06.02)	\$261.9	\$261.9	\$757.4	\$(495.5)	\$(993.7)
Maintenance DLA (3001.04.05.02)	\$853.4	\$853.4	\$1,449.7	\$(596.3)	\$(1,390.9)
Janitorial Services DLA (3001.04.05.03)	\$147.1	\$147.1	\$189.0	\$(41.9)	\$(136.4)
<b>Total Direct Labor Adder</b>	<b>\$1,734.0</b>	<b>\$1,734.0</b>	<b>\$2,946.0</b>	<b>\$(1,212.0)</b>	<b>\$(2,947.7)</b>

ACWP = Actual Cost of Work Performed. CV = Cost Variance BAC = Budget at Completion.  
 BCWP = Budgeted Cost of Work Performed. BCWS = Budgeted Cost of Work Scheduled.



Table 7-1, cont. Usage-Based Services/Direct Labor Adder Summary (dollars in thousands).

Fiscal Year 2017 to Date – November 2016					
Account Description	BCWS	BCWP	ACWP	CV	Liquidation
<b>Usage Based Services</b>					
Training (3001.01.04.02)	\$1,375.1	\$1,375.1	\$1,989.3	\$(614.2)	\$(1,680.2)
HRIP (3001.02.04.02)	\$936.0	\$936.0	\$445.0	\$491.0	\$(565.6)
Dosimetry (3001.02.04.03)	\$958.8	\$958.8	\$699.0	\$259.8	\$(722.5)
Information Technology Services (3001.03.07.01)	\$4,321.3	\$4,321.3	\$4,403.1	\$(81.8)	\$(4,996.9)
Work Management (3001.04.13.01)	\$-	\$-	\$107.4	\$(107.4)	\$(81.2)
Courier Services (3001.04.15.02)	\$30.8	\$30.8	\$29.8	\$1.0	\$(29.0)
Occupancy (3001.04.14.06)	\$1,058.0	\$1,058.0	\$1,517.0	\$(459.0)	\$(1,379.0)
Crane & Rigging (3001.04.08.02)	\$1,418.5	\$1,418.5	\$1,831.3	\$(412.8)	\$(1,970.7)
Guzzler Trucks (3001.04.06.03)	\$11.9	\$11.9	\$1.1	\$10.8	\$-
Fleet (3001.04.07.02)	\$1,165.9	\$1,165.9	\$2,285.1	\$(1,119.2)	\$(1,687.5)
<b>Total UBS</b>	<b>\$11,276.3</b>	<b>\$11,276.3</b>	<b>\$13,308.1</b>	<b>\$(2,031.8)</b>	<b>\$(13,112.6)</b>
<b>Total DLA / UBS</b>	<b>\$13,010.3</b>	<b>\$13,010.3</b>	<b>\$16,254.1</b>	<b>\$(3,243.8)</b>	<b>\$(16,060.3)</b>

ACWP = Actual Cost of Work Performed.

CV = Cost Variance

BAC = Budget at Completion.

BCWP = Budgeted Cost of Work Performed.

BCWS = Budgeted Cost of Work Scheduled.

**FYTD Cost Variance (-\$3.2M)** – Transportation DLA costs have increased in response to the Stevens Center and DOE moves. Occupancy volume has increased due to the recent inclusion of 2261 Stevens and 1981 Snyder facilities, per the Lockheed Martin Services, Inc./MSA scope transition. Crane & Rigging costs have increased due to support of Tank Farms and PFP. Overall, the Usage Based and Direct Labor Adder service demand is far in excess of contract baseline assumptions, especially in Fleet count/services and Training support scopes. Due to the nature of the accounts, costs will continue to mirror increased liquidation values in all of these pools.

### 8.0 RELIABILITY PROJECT STATUS

Activity in November was centered on continuing progress on projects carried over from FY 2016. (Table 8-1 below.) For further information concerning accomplishments and issues related to the Reliability Projects, refer to the Site Services and Interface Management Service Area section of this report.

Table 8-1. Current Active Reliability Projects Summary

Projects to be Completed (\$000's)																
Work Scope Description (ORP-14 Projects)	Contract to Date - Performance								Project Lifecycle				Complete Dates			VAC Cost
	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	CSPI	BAC	EAC	VAC	% Complete	Complete Date	Forecast Date	Schedule at Complete	
<b>Work Scope Description (ORP-14 Projects)</b>																
L-780, 200E 13.8kV ED Sys Mods	7,563.4	7,591.4	7,614.4	28.0	(23.0)	1.0	1.0	1.0	7,608.8	7,618.4	(9.6)	99.8%	1/11/17	12/6/16	G	G
<b>ORP-14 Subtotal</b>	<b>7,563.4</b>	<b>7,591.4</b>	<b>7,614.4</b>	<b>28.0</b>	<b>(23.0)</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>7,608.8</b>	<b>7,618.4</b>	<b>(9.6)</b>					
<b>Work Scope Description (RL-40 Projects)</b>																
L-612, 230kV Transmission System Reconditioning and Sustainability Repairs	944.6	916.9	530.4	(27.7)	386.5	1.0	1.7	1.3	1,098.0	758.6	339.4	83.5%	6/26/17	6/26/17	G	G
L-761, Phase 2a Procure, Install, & Closeout	1,611.6	1,475.0	1,020.9	(136.6)	454.1	0.9	1.4	1.1	2,162.2	1,619.1	543.1	68.2%	12/29/16	12/29/16	G	G
L-789, Prioritize T&D Sys Wood PP Test & Replace	262.3	230.4	178.4	(31.9)	52.0	0.9	1.3	1.1	1,446.3	1,379.1	67.2	15.9%	1/18/18	1/30/18	Y	G
L-815, Upgrade Transmission/Distrib Access Rds	104.0	105.2	139.3	1.2	(34.1)	1.0	0.8	0.9	153.0	152.9	0.1	68.8%	12/29/16	12/29/16	G	G
L-830, Filter Plant Filter Ctrl Sys Upgrade	1,050.6	742.8	1,309.3	(307.8)	(566.5)	0.7	0.6	0.6	1,050.6	1,858.3	(807.7)	70.7%	9/19/16	3/28/17	R	R
L-525, 24in Line Replacement 200E	3,298.5	3,438.3	1,875.1	139.8	1,563.2	1.0	1.8	1.4	3,618.9	2,015.1	1,603.8	95.0%	3/2/17	2/2/17	G	G
L-840, 24in Line Replacement 200W	3,335.9	3,314.0	1,787.6	(21.9)	1,526.4	1.0	1.9	1.4	3,467.6	1,974.5	1,493.1	95.6%	1/27/17	2/2/17	Y	G
L-775, Chip SI Rt 4s, Canton Ave to Y Barricade	156.4	140.5	119.6	(15.9)	20.9	0.9	1.2	1.0	156.4	123.5	32.9	89.8%	9/21/16	12/8/16	Y	G
L-776, Chip SI Rt 4s, Y Brrcd to 618 Wst St Ntrnc	101.3	85.4	46.4	(15.9)	39.0	0.8	1.8	1.3	101.3	50.2	51.1	84.3%	9/21/16	12/8/16	Y	G
L-777, Chip SI Rt 4s, 618-10 Wst Site to HR Road	123.6	107.7	81.1	(15.9)	26.6	0.9	1.3	1.1	123.6	85.0	38.6	87.1%	9/21/16	12/8/16	Y	G
L-853, 200E Sewer Flow Equalization Facility	634.9	633.2	654.2	(1.7)	(21.0)	1.0	1.0	1.0	996.8	999.1	(2.3)	63.5%	5/24/17	5/24/17	G	G
L-854, 200E Sewer Consolidations	410.7	409.5	445.3	(1.2)	(35.8)	1.0	0.9	1.0	693.3	702.4	(9.1)	59.1%	5/24/17	5/24/17	G	G
L-868, Raw Water Fire Protection Loop for LAWPS	293.5	293.3	127.1	(0.2)	166.2	1.0	2.3	1.7	386.6	294.1	92.5	75.9%	9/18/17	9/18/17	G	G
L-894, Raw Water Cross Connection Isolation 200E/W	300.0	220.0	75.4	(80.0)	144.6	0.7	2.9	1.8	300.0	100.4	199.6	73.3%	11/17/16	12/29/16	Y	G
<b>RL-40 Subtotal</b>	<b>12,627.9</b>	<b>12,112.2</b>	<b>8,390.1</b>	<b>(515.7)</b>	<b>3,722.1</b>	<b>1.0</b>	<b>1.4</b>	<b>1.2</b>	<b>15,754.6</b>	<b>12,112.3</b>	<b>3,642.3</b>					
<b>Total</b>	<b>20,191.3</b>	<b>19,703.6</b>	<b>16,004.5</b>	<b>(487.7)</b>	<b>3,699.1</b>	<b>1.0</b>	<b>1.2</b>	<b>1.1</b>	<b>23,363.4</b>	<b>19,730.7</b>	<b>3,632.7</b>					

Variance at Complete Cost Performance		Schedule at Complete Performance	
OK - G	Underspent or 1-10% over	OK - G	On schedule
Over Spent Y	11-30% or 100K Over Spent	Behind Y	Within 30 days
Over Spent R	>30% or 300K Over Spent	Behind R	Greater than 30 days



**RELIABILITY STATUS, CONT.**

**Reliability Projects Variance Explanations**

**Contract-to-Date (CTD) Schedule Variances (SV):**

- L-761, *Replace RFAR, Phase 2a - Procure, Install, & Closeout*: Unfavorable SV is due to the Construction Mobilization ramp-up due to delay in hiring of the construction crew and procurement of the office and mobile break trailers.
- L-830, *Filter Plant Filter Control System Upgrade*: Unfavorable SV is because engineering design completed behind schedule impacting successor activities, delays in material delivery of valves/actuators and control panels, and delays to work performance due to Filter Plant issues. Work planning and construction inefficiencies in construction increased the variance. The SV is not recoverable, and will increase until the project completes.
- L-525, *24 Inch Line Replacement, 200E*: Favorable SV is due to the contractor laying pipe more quickly than planned.
- L-894, *Raw Water Cross Connection Isolation 200E/W*: Unfavorable SV is attributable to the Study Report requiring more time to complete than originally scheduled. The Study, originally due in November, will be completed by the end of December.

**CTD Cost Variances (CV):**

- L-612, *230kV Transmission System Reconditioning and Sustainability Repairs*: Positive CV is due to the construction subcontract performed for significantly less than the original estimate. The Environment Assessment was contracted and not self-performed.
- L-761, *Replace RFAR, Phase 2a - Procure, Install, & Closeout*: Favorable CV is due to design costs being less than planned and because of a Construction Mobilization delay resulting in reduced current month costs.
- L-830, *Filter Plant Filter Control System Upgrade*: Unfavorable SV is due to additional design costs to resolve comments provided at the initial 90% design submittal, additional in-house engineering required to complete material procurement, increased work package planning cost, and unanticipated construction cost, (scaffolding, outage costs, confined space efficiencies, and delays due to weather/fires). Cost continues to increase due to as-found asbestos issues and redesign of support racks.





- L-525, *24 Inch Line Replacement, 200E*: Favorable CV is due to the award of the construction subcontract for significantly less than the initial estimate.
- L-840, *24 Inch Line Replacement 200W*: Favorable CV is due to modest savings for site clearing work due to favorable site conditions, and the construction subcontract award for significantly less than the initial estimate. The significant construction cost savings are attributable to the contractor's expertise in this type of construction, and significantly less difficult site conditions currently being encountered than was assumed when preparing the initial cost estimate.
- L-868, *Raw Water Fire Protection Loop for LAWPS*: Favorable CV is due to the project support and conceptual design/definitive design contract costing less than planned.
- L-894, *Raw Water Cross Connection Isolation 200E/W*: Favorable CV is due to the Study Report utilizing fewer resources than originally anticipated.

**Variances at Completion (VAC) (Threshold: +/- \$750K):**

- L-612, *230kV Transmission System Reconditioning and Sustainability Repairs*: Favorable VAC is due to the conceptual design subcontract award, Environment Assessment contract, and planning costs being less than planned.
- L-761, *Replace RFAR, Phase 2a - Procure, Install, & Closeout*: Favorable VAC is due to Construction ramp-up delay and because the procurement of the mobile break trailers was canceled.
- L-830, *Filter Plant Filter Control System Upgrade*: Unfavorable VAC is due to increased costs for design work and engineering support during procurements and construction, and equipment and construction not adequately scoped.
- L-525, *24-Inch Line Replacement, 200E*: Favorable VAC is due to modest savings for site clearing work due to favorable site conditions, and the construction subcontract award for significantly less than the initial estimate. The significant construction cost savings are attributable to the contractor's expertise in this type of construction, and significantly less difficult site conditions currently being encountered than was assumed when preparing the initial cost estimate.
- L-840, *24 Inch Line Replacement 200W*: Favorable VAC is due to modest savings for site clearing work due to favorable site conditions, and the construction subcontract award for significantly less than the initial estimate. The significant construction cost savings are attributable to the contractor's expertise in this type



of construction, and significantly less difficult site conditions currently being encountered than was assumed when preparing the initial cost estimate.

- L-776, *Chip Sl Rt 4s, Y Brrcd to 618 Wst St Ntrnc*: Variance is due to incurring less Engineering (\$21.6K) and Environmental (\$17.9K) cost than planned.
- L-868, *Raw Water Fire Protection Loop for LAWPS*: Favorable VAC is due to project support costing less during planning and the design bid coming back lower than planned.
- L-894, *Raw Water Cross Connection Isolation 200E/W*: Favorable CV is due to due to the Planning and Studies task requiring a much smaller effort than anticipated.

Table 8 -2. Reliability Projects Schedule

RPSUM CU - Summary RP Schedule for Melodee - Current Layout: MSA - Summ RP Sched - Melodee - CU		Mission Support Alliance							Page 1 of 2														
Activity ID	Activity Name	OD	RD	% Comp	Baseline Start	Baseline Finish	Forecast Start	Forecast Finish	2015			2016			2017								
L-525	L-525, 24"Line Renovation/Replacement from 2901Y to 200E	152	48	95%	01-Apr-15	02-Mar-17	01-Apr-15 A	02-Feb-17															
L-612	L-612, 230kV Transmission System Reconditioning and Sustainability Upgrades	352	148	83.5%	31-Aug-15	26-Jun-17	31-Aug-15 A	26-Jun-17															
L-761 Ph2a	L-761, Replace RFAR Phase 2a	154	24	68.2%	20-Jul-15	29-Dec-16	20-Jul-15 A	29-Dec-16															
L-775	L-775, Chip Seal RT 4s, Canton Ave to Y Barricade	186	11	89.8%	10-Aug-15	21-Sep-16	10-Aug-15 A	08-Dec-16															
L-776	L-776, Chip Seal Rt 4S Y Brrcd to 618 Wst St Ntrnc	72	11	84.3%	15-Jun-16	21-Sep-16	21-Jun-16 A	08-Dec-16															
L-777	L-777, Chip Seal RT 4s, 618-10 Wst Site to HR Road	186	11	87.1%	24-Aug-15	21-Sep-16	10-Aug-15 A	08-Dec-16															
L-780	L-780, 200E Area 13.8kV Electrical Distribution System WFD Modifications and Upgrades	203	9	99.8%	19-Jan-15	11-Jan-17	01-Oct-14 A	06-Dec-16															
L-789	L-789, Prioritized T&D System Wood Pole Upgrades	203	297	15.9%	10-Aug-15	18-Jan-18	10-Aug-15 A	30-Jan-18															
L-815	L-815, Upgrade Transmission/Distrib Access Rds	411	24	68.8%	16-Feb-16	29-Dec-16	02-Feb-16 A	29-Dec-16															
L-830	L-830, Filter Plant Filter Control System Upgrade	125	85	70.7%	29-Jun-15	19-Sep-16	29-Jun-15 A	28-Mar-17															
L-840	L-840, 24"Line Renovation/Replacement from 2901Y to 200W	461	48	95.6%	01-Apr-15	27-Jan-17	01-Apr-15 A	02-Feb-17															
L-853	L-853, 200E Sewer Flow Equalization Facility	309	126	63.5%	17-Aug-15	24-May-17	17-Aug-15 A	24-May-17															
L-854	L-854, 200E Sewer Consolidations	283	126	59.1%	17-Aug-15	24-May-17	17-Aug-15 A	24-May-17															



**MSC - Reliability Projects  
Summary Schedule  
Data Date: 20-Nov-16**



Remaining Work  
Baseline

Table 8-2, cont. Reliability Projects Schedule

RPSUM CU - Summary RP Schedule for Melodee - Current Layout: MSA - Summ RP Sched - Melodee - CU		Mission Support Alliance							Page 2 of 2		
Activity ID	Activity Name	OD	RD	% Comp	Baseline Start	Baseline Finish	Forecast Start	Forecast Finish	2015 2016 2017		
L-868	L-868, Raw Water Fire Protection Loop for LAWPS	155	206	75.9%	04-Jan-16	18-Sep-17	14-Dec-15 A	18-Sep-17			
L-894	L-894, Raw Water Cross Connection Isolation 200E/W	23	24	73.3%	29-Aug-16	17-Nov-16	29-Aug-16 A	29-Dec-16			

Remaining Work  
 Baseline

**MSC - Reliability Projects**  
**Summary Schedule**  
**Data Date: 20-Nov-16**





## 9.0 BASELINE CHANGE REQUEST LOG

### Baseline Change Request Log for November

Eight Baseline Change Requests (BCRs) were processed in November.

One BCR incorporated a Contract Modification:

- VMSA-17-005 – Mod 560 – Definitization on Pre-Manhattan Project Facilities Proposal & Change Title of Level 5 WBS

Seven BCRs are Administrative in Nature:

- VMSA-17-004 Rev 1 – Administrative BCR – Create Lower Level Task Order (LLTO) WBSs for Cost Collection Established in the Month of November
- VMSA-17-006 – Administrative BCR – Update FY 2017 MSA Realization Calendar to Correct FTE Errors
- VSWS-17-002 – Administrative BCR – Reassign Maintenance Management Program from Training & Conduct of Operations to President's Office
- VSWS-17-003 – Create a Level 4 and 5 WBS for IM Project Management & Oversight and Move Budget from IM Project Planning & Controls (FY 2017 – FY 2019)
- VSWS-17-004 – Move Budget from IT Cross Functional Services to MFM Lease Services Program (FY 2017 – FY 2019)
- VSWS-17-005 – Administrative BCR – Realign the Information Management Baseline Budget between Level 3 WBSs (FY 2017 – FY 2019)
- VSWS-17-006 – Remove Budget and Eliminate Authorized Unpriced Work (AUW) Established for Electrical Master Plan



Table 9-1. Consolidated Baseline Change Log

Consolidated Baseline Change Log											
\$ in thousands											
						POST CONTRACT BUDGET					
PBS / Other	Reporting Baseline	Contract PMB	Contract PMB Mgmt Reserve	Contract Performance Budget (CPB)	Cum Contract Period	FY17 Budget	FY17 Management Reserve	Post Contract Budget	Post Contract Mgmt Reserve	Total Lifecycle	Cum Lifecycle Budget
<b>Prior PMB Total</b>	<b>Oct 2016</b>	1,230,506		1,230,506	1,230,506	206,962		1,119,035		2,349,541	2,349,541
VMSA-17-004 Rev 1						416		927		927	2,350,468
VMSA-17-005						0		0		0	2,350,468
VMSA-17-006						0		0		0	2,350,468
VSWS-17-002						0		0		0	2,350,468
VSWS-17-003						0		0		0	2,350,468
VSWS-17-004						0		0		0	2,350,468
VSWS-17-005						0		0		0	2,350,468
VSWS-17-006						(275)		(275)		(275)	2,350,193
	<b>Nov 2016</b>	1,230,506		1,230,506	1,230,506	207,103		1,119,687		2,350,193	
<b>Prior Non-PMB Total</b>	<b>Oct 2016</b>	604,007		604,007		93,498		467,603		1,071,610	1,071,610
<b>Revised Non-PMB Total</b>	<b>Nov 2016</b>	604,007		604,007		93,498		467,603		1,071,610	
<b>Total Contract Performance Baseline</b>	<b>Nov 2016</b>	1,834,513		1,834,513	1,834,513			1,587,290		3,421,802	
<b>Management Reserve</b>	<b>Oct 2016</b>		0	0		0	83		83	83	83
<b>Revised Management Reserve</b>	<b>Nov 2016</b>		0	0		0	83		83	83	
<b>Total Contract Budget Base</b>				1,834,513				1,587,372		3,421,885	
<b>Prior Fee Total</b>	<b>Oct 2016</b>	109,961		109,961		21,526		100,074		210,035	210,035
VMSA-17-005						21		48		48	
<b>Revised Fee Total</b>	<b>Nov 2016</b>	109,961		109,961		21,547		100,122		210,082	
<b>Change Log Total</b>	<b>Nov 2016</b>			1,944,473				1,687,494		3,631,967	



## 10.0 RISK MANAGEMENT

November risk management efforts, aiding in completing the overall MSA risk determination, included the following:

- The Risk Management Board was held to review and approve the proposed new and closed risks, and review the overall company risk posture associated with November data. The following items were approved:
  - Four new Mission risks, 3 related to Information Management and 1 related to Emergency Services
  - One closed Project risk related to HSPD-12 Multifactor Authentication Acceleration project (HSPD-12/MFA).
  - One Project risk was re-characterized related to HSPD-12 Multifactor Authentication Acceleration project (HSPD-12/MFA).
  - Thirty new Reliability Project risks for projects L-761, *RFAR Phase II*; L-775, *Chip Seal Route 4S, Canton Ave to the Wye Barricade*; L-776, *Chip Seal Route 4S, Wye Barricade to 618-10 Waste Site*; L-777, *Chip Seal Route 4S, 618-10 Waste Site to Horn Rapids Road*; L-789, *Prioritized T&D System Wood Power Poles Testing and Replacement*; L-853, *200E/200W Force Main*; L-854, *200E Sewer Consolidations*; L-859, *1st Street from Canton Ave to IDF Entrance Road*; and L-863, *Replace Obsolete FACPs for MSA General Use Facilities*.
  - Four closed Reliability Project risks for Projects L-789, *Prioritized T&D System Wood Power Poles Testing and Replacement*; L-854, *200E Sewer Consolidations*; and L-868, *Raw Water Fire Loop for LAWPS*.
  - Thirteen Reliability Project risks were re-characterized for Projects L-612, *230kV Transmission System Sustainability Upgrades (Options Study)*; L-830, *Filter Plant Filter Control System Upgrade (Valves)*; L-853, *200E/200W Force Main*; L-854, *200E Sewer Consolidations*; and L-868, *Raw Water Fire Loop for LAWPS*.
- In accordance with the MSC-MP-42375, *Hanford Mission Support Contract Risk Management Plan*, the monthly Risk Management report was submitted to the RL Contracting Office. This report consisted of October data.
- Project Risk Analysis:
  - Monte Carlo risk analyses were run for Projects L-859, *1st Street from Canton Ave to IDF Entrance Road*; L-775, *Chip Seal Route 4S, Canton Ave to*



*the Wye Barricade; L-776, Chip Seal Route 4S, Wye Barricade to 618-10 Waste Site; and L-777, Chip Seal Route 4S, 618-10 Waste Site to Horn Rapids Road.* The analysis results will be included in the project re-estimate Baseline Change Requests (BCRs). Monte Carlo risk analyses were begun for Project L-419, *24" Line Renovation / Replacement from 2901U to 200E*, and for Project L-868, *Raw Water Fire Loop for LAWPS*.

- Risk Management reviewed the monthly Operations Project Reports for each reliability project and any related Key Risks for monthly reporting to DOE.
- Mission Risk Review and Update:
  - Risk Management met with Information Management – Cyber Security to review and update two existing risks that are being transferred to a new owner. Updates to these risks will be incorporated into the risk register. New risks associated with the privacy program are in development.
  - Risk Management also met with Information Management – Field Support Services to finalize a series of risks related to the Emergency Notification Sirens. These risks will be presented for approval at the next Risk Management Board.
  - A risk elicitation was held with Information Management to begin development of a new risk related to Legacy Software Systems.
  - Risk Management toured the 2711E Fleet Facility and performed a risk elicitation in reference to a potential risk related to the age and capabilities of the facility.
- Other Support:
  - Site Wide Risk Register Solution Initiative – Representatives from MSA Risk Management, DOE Risk Management, and CHPRC Risk Management received a demo related to a Risk Register database currently being developed by MSA Information Management for WRPS. This demo will help to determine what path forward to take to develop/implement a potential site wide solution.
  - Client Interface – Held the second of three pilot meetings for Quarterly RL/MSA Risk Management Interface. Risk Management communicated the status of the draft risks being evaluated in relation to the areas of concern discussed at the previous meeting.



## 11.0 DASHBOARD SUMMARY

Table 11-1. Performance Evaluation and Measurement Plan

November FY 2017					Status		
2017 Performance Evaluation and Measurement Plan					YTD	Nov	
Deliverables	Plan	MSA					
<b>1.0 Effective Site Cleanup</b>							
1.1 Enable mission contractors to achieve their cleanup mission by delivering timely service and reliable infrastructure that support customer key milestones and regulatory commitments.	1.1.1	Demonstrate that the following performance measure targets were met.	9/30/2017	Brockman			
		a Biological Controls – Pest Removal		Synoground			
		b Biological Controls – Tumbleweed Removal		Synoground			
		c Biological Controls – Vegetation		Synoground			
		d Crane and Crew Support		Brockman			
		e Electrical – Power Availability		Synoground			
		f Facilities Maintenance		Brockman			
		g Fire Protection System Maintenance		Walton			
		h		Fleet Services – Heavy Equipment (Cranes)	Brockman		
				Fleet Services – Heavy Equipment (Evacuators)	Brockman		
				Fleet Services – Heavy Equipment (General Purpose)	Brockman		
		i		Fleet Services – Light Equipment (Hanford Patrol)	Brockman		
				Fleet Services – Light Equipment (Hanford Fire)	Brockman		
				Fleet Services – Light Equipment (Special Purpose Trucks)	Brockman		
		j		IT - Cyber Security – System Patching	Eckman		
		k		PFP Support - Loaned Labor	Brockman		
		l		Public Works - Maintenance Backlog	Metzger		
		m		RSS - Dosimetry External Services	Wilson		
		n		RSS - Instrument Calibration	Wilson		
	o	Spent Fuel Activity Support - Loaned Labor	Brockman				
p	Water – Potable	Synoground					
	Water – Raw	Synoground					
1.1.2	Implement FY17 actions per the approved schedule of the MSC-PLN-ENG-56352 Maintenance Maintenance Program Management Plan Rev 2 and HNF-56046, rev 5 MSA Maintenance Program Five-Year Plan.	9/30/2017	Metzger				
1.1.3	Transition Public Works Maintenance Backlog process to required Deferred Maintenance Management process.	9/30/2017	Synoground				
1.1.4	Complete approved project investment portfolio elements as measured by the cost/schedule performance index, which is calculated as (CPI + SPI)/2.	9/30/2017	Brockman				

### LEGEND

- = On schedule
- = Complete
- = In jeopardy

- = Objective missed
- = N/A



Table 11-1. Performance Evaluation and Measurement Plan, Cont.

2.0 Efficient Site Cleanup					
2.1 Demonstrate MSA's responsiveness and alignment of resources and equipment to meet the cleanup contractors' project requirements in support of key milestones.	2.1.1	Maximize efficient MSA use of resources to meet the other Hanford contractors' changing project needs.	9/30/2017	Brockman	On schedule
	2.1.2	Demonstrate consolidation of the Hanford Site infrastructure footprint to the 75 square miles of the Central Plateau. Submit a plan and schedule for approval by 10/15/16 and implement FY17 actions per the approved schedule.	9/30/2017	Synoground	On schedule
	2.1.3	Demonstrate effective safety and quality management to include, but not be limited to, a robust Contractor Assurance System.	9/30/2017	Jensen	On schedule
	2.1.4	Demonstrate effective Hanford Site integration to include, but not limited to, identifying longstanding or emerging issues that affect efficient site operations and provide recommendations for improvement (e.g., WTP integration, WCH transition, contract re-alignments, etc.).	9/30/2017	Brockman	On schedule
	2.1.5	Apply disciplined work controls to Fire Systems Maintenance by fully emulating Phoenix to maximize safety, compliance, and integration with OHCs for site fire systems.	9/30/2017	Walton	On schedule
	2.1.6	Provide Hanford contractors with integrated tools to maximize "wrench time."	9/30/2017	Metzger	On schedule
3.0 Comprehensive Performance					
Execute the balance of contract work scope within the contract requirements, terms, and conditions, demonstrating excellence in quality, schedule, management, cost control, small business utilization, and regulatory compliance.			9/30/2017	Wilkinson	On schedule
Provide leadership to improve management effectiveness and collaborate and participate proactively with customers.					On schedule
Work with DOE and the other Hanford contractors in a spirit of cooperation to demonstrate operational excellence to include, but not limited to, the following areas:					On schedule
o Business and financial management using approved purchasing, estimating, property, budget, planning, billing, labor, accounting, and performance measurement systems, providing visibility and transparency to DOE with respect to each of the foregoing					On schedule
o Contract change management and subcontract administration and consent activities, e.g., proposal review and negotiation process, including timely and adequate submission of proposals and requests for additional data, timely counteroffers, and attaining small business goals					On schedule
o Safeguards and security, fire department operations, emergency response, and emergency					On schedule
o Land Management					On schedule
o Infrastructure and services program management, operations and maintenance					On schedule
o Effective contractor human resources management					On schedule
o Problem identification and corrective action implementation					On schedule
Performed work safely and in a compliant manner that assures the workers, public, and environment are protected from adverse consequences			On schedule		

**LEGEND**

= On schedule

= Complete

= In jeopardy

= Objective missed

= N/A

## 12.0 CONTRACT DELIVERABLES STATUS

The following itemizes the contract deliverables due to RL in November, and provides a 30-day look ahead through December 2016.

Table 12-1. November – December 2016 Contract Deliverables

CDRL	Deliverable	Responsible	Date Due	Date Submitted to DOE	Action	Response Time	Date Due from DOE	Date Approved by DOE
CD0112	GSA Non-Federal Recipients and Exchange Sale Reports	Olsen	11/1/16	10/27/2016	Review	10 days	11/6/16	
CD0113	Inventory Accuracy Reports	Olsen	11/1/16	10/27/2016	Information	N/A	N/A	
CD0114	Disposal of Excess and Surplus Personal Property Report	Olsen	11/1/16	10/27/2016	Information	N/A	N/A	
CD0123	Monthly Billing Reports for DOE Services - Oct	Eckman	11/5/16	11/2/2016	Information	N/A	N/A	
CD0144	Monthly Performance Report - Sep	Olsen	11/10/16	11/7/2016	Review	None	N/A	
CD0046	Self-Assessment and Corrective Actions	Walton	11/15/16	11/8/2016	Review	30 days	12/8/16	
CD0182	Site-Wide Assessment of Institutional Controls	Synoground	11/15/16	11/9/2016	N/A	N/A	N/A	
CD0002	Annual Forecast of Services and Infrastructure	Brockman	11/30/16	11/22/2016	Review	N/A	N/A	
CD0084	Bonneville Power Administration (BPA) Power and Transmission Service invoice verification and breakdown of site contractor costs - Sep	Synoground	11/30/16	11/22/2016	Review	30 days	12/22/16	
CD0008	Force-on-Force Test Results	Walton	12/3/16	11/30/2016	Review	45 days	1/15/17	
CD0123	Monthly Billing Reports for DOE Services - Nov	Eckman	12/5/16	11/30/2016	Information	N/A	N/A	
CD0144	Monthly Performance Report - Oct	Olsen	12/10/16	12/8/2016	Review	None	N/A	
CD0111	Contractor Personal Property Management Balanced Scorecard Report	Eckman	12/20/16		Review	10 days		
CD0189	Site Sustainability Plan	Wilson	12/21/16		Review	N/A	N/A	
CD0043	Limited Emergency Preparedness Evaluation / Training Exercise Reports	Walton	12/23/16		Approve	45 days		
CD0084	Bonneville Power Administration (BPA) Power and Transmission Service invoice verification and breakdown of site contractor costs - Oct	Synoground	12/30/16		Review	30 days		
CD0080	Replacement of GSA Leased Vehicles Report	Brockman	12/30/16		Review	30 days		
CD0076	Annual Catalog - Seismic	Wilson	12/31/16		Review	30 days		

**NOTE: Areas shaded in gray indicate delivery to DOE, and when the "Date Approved by DOE" is shaded, approval has been received in return.**

**"Review" responses from DOE are not documented with dates, but shaded when complete.**

IAMIT = Interagency Management Integration Team.

TPA = Tri-Party Agreement.

N/A = No action.





## 12.1 GOVERNMENT-FURNISHED SERVICES/INFORMATION AND DOE DECISIONS

There are two Government-Furnished Services and Information (GFS/I) items due to MSA in 2017:

- GF049, due June 1, 2017: DOE to provide a Hanford “planning case” budget to prepare the updated *Hanford Lifecycle Scope, Schedule, and Cost Report*, and
- GF050, due October 31, 2017: DOE Approval of the *DRAFT Hanford Lifecycle Scope, Schedule, and Cost Report* (Lifecycle Report).

On-time delivery of both of these items is anticipated.



## 13.0 SELF-PERFORMED WORK

Table 13-1. Mission Support Contract Socioeconomic Reporting.

Plan Category	MSA Goal	FY 2017 Actual To-Date	Cumulative %
Small Business	50.0%	88.2%	54.9%
Small Disadvantaged Business	10.0%	35.3%	10.0%
Small Women-Owned Business	6.8%	19.9%	11.7%
HubZone	2.7%	14.5%	4.3%
Small Disadvantaged, Service Disabled	2.0%	12.7%	4.5%
Veteran-Owned Small Business	2.0%	12.8%	6.1%

Through November 2016

### Prime Contract Targets:

- At least 40% contracted out beyond MSA, LLC = 47% (\$1,370M/\$2,910M)
- Small Business 25% of Total MSC Value = 26% (\$754M/\$2,910M)

Potential fee reduction based on cumulative at Year eight (8) of the MSA contract.



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## SERVICE AREA SECTIONS

Individual Service Area Section reports for November are included as follows:

- Business Operations
- Emergency Services
- Environmental, Safety & Health
- Information Management
- Portfolio Management
- President's Office
- Public Works
- Site Services & Interface Management
- Training & Conduct of Operations



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# MISSION SUPPORT ALLIANCE

"WE WILL MEASURE OUR SUCCESS BY OUR CUSTOMERS' SUCCESS"



## Business Operations

Rich Olsen, Vice President and Chief Financial Officer

## Monthly Performance Report

November 2016



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## INTRODUCTION

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The Business Operations organization supports the Mission Support Alliance, LLC (MSA) by providing required business administration activities including internal management, Human Resources (HR), contract and subcontract administration, and financial controls to effectively manage the Mission Support Contract (MSC). Business Operations is responsible for activities that include HR, Finance and Accounting (F&A), Program Controls, and Contracts. HR promotes competitive compensation, benefits, and development opportunities for the MSA and its teaming partners, enabling them to provide distinctive service to customers. HR is also responsible for developing and implementing personnel policies; offering creative staffing solutions; facilitating positive interaction and employee relations; and making cost-effective, value-based decisions. F&A includes accounts payable, accounts receivable, general ledger reconciliation, payroll and all payroll services for nine companies, pricing and cost estimating, and validating the timekeeping system. Program Controls includes scope, schedule, and cost baseline management, planning, baseline change, work integration and control, and performance reporting. Contracts includes acting as the primary point of contact for the MSA in all contractual matters with the U.S. Department of Energy (DOE), Richland Operations Office (RL). Contracts supports all MSA functional areas by providing contract administration and management; monitors all aspects of contract performance; provides subcontracting and purchasing support to accomplish the MSC mission and support the Hanford Site; reviews incoming correspondence for contractual impacts; assigns and tracks all open action items to completion; and starting in fiscal year (FY) 2017, provides Property and Warehouse Management services, including Inventory Management, Excess Property, Receiving, Warehousing, Shipping, Stores Delivery, and Courier Services.

## KEY ACCOMPLISHMENTS

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### PROGRAM CONTROLS

**Update of FY 2017 Integrated Investment Portfolio (IIP) – MSA Program Controls** continues to support updates to the FY 2017 IIP and Reliability Project Investment Portfolio (RPIP), and issued the plan of action (shown below) for completing the deliverable. MSA is directed by the RL Contracting Officer to provide the updated FY 2017 IIP and RPIP by December 31, 2016.



December FY 2017 IIP Submittal		
Action	Due Date	Responsibility
Finalize the FY 17 IIP and supporting documents for transmittal to RL	12/12/16	VPs and Program Controls
Complete review of IIP documents	12/14/16	Program Controls
Transmit the FY 17 IIP to RL	12/21/16	Contracts

**Performance Incentive (PI) 2.1.4 Self-Assessment** – MSA’s self-assessment to evaluate the relationships and functions of MSA’s systems for effective planning, organizing, controlling, and reviewing all activities (PI 2.1.4) continued in November. By the end of the month, the assessment team had interviewed 49 RL and MSA personnel (14 RL and 35 MSA) to identify planning, performance information and business system areas of improvement and strengths. Scheduled in early December are meetings to prepare the initial composite observations, consolidate common themes, and identify key observations. A first draft report of the self-assessment, along with briefings to MSA senior management are slated for early January. Completion of the final self-assessment report and briefing to RL is due by January 30, 2017.

**Control Account Manager (CAM) Training** – During November, several Control Account Manager (CAM) Initial Training and Qualification Training sessions were completed. The Initial CAM Training session is designed to provide CAMs with a basic understanding of MSA Performance Management Systems. It covers organization, planning and budgeting, accounting, reporting and analysis, and change control. The session is particularly designed to provide performance measurement knowledge for the CAM to most effectively manage their responsibilities. The CAM Qualification session is designed to briefly review the CAM initial Qualification material and measure knowledge gained through CAM experience. This course primarily utilizes questions to prepare the CAM for an audit or surveillance. This session also identifies several performance measurement resource materials.



## HUMAN RESOURCES (HR)

**Management Fundamentals Training** – The MSA Human Resources Organizational Development Team completed its third and final Management Fundamentals course for 2016. There were 20 employees in attendance. The three-day class curriculum is part of MSA’s commitment to ensuring employees have the appropriate training and development necessary to perform their job duties. Three additional opportunities to attend the course have been established for 2017.

**Mentoring Workshop** – The Staffing, Diversity & Development (SDD) team conducted the fourth mentoring workshop for those who will be part of the MSA Mentoring Program. Attendance, participation and feedback was positive and well received. The SDD team will host make-up sessions for those who had prior obligations or who were not available to attend. A proposal for rolling out the official program is in draft form.

**Hanford Site Pension and Savings Committee Meeting** – MSA Human Resources coordinated and participated in the third quarter Hanford Site Pension and Savings Committee Meeting on November 10, 2016. Topics included Pension and Savings investment performance, investment management fees, and a review of the security valuation process and controls. A representative from the Plan financial statement auditor, Moss Adams, reported on the successful calendar year 2016 audits. Other topics included a final determination letter provided by the U.S. Internal Revenue Service for the Hanford Guards Union, Local 21 Savings Plan, and reporting of Fiscal Year End pension and savings plan administrative actual costs compared to budgets.

## CONTRACTS AND PROCUREMENT

**2012 Warehouse Consolidation Initiative** – MSA led a multi-contractor effort to update the 2012 Warehouse Consolidation Initiative, taking into consideration the transition of Washington Closure Hanford (WCH) scope to CH2M HILL Plateau Remediation Company (CHPRC), the expanding scope of Washington River Protection Solutions LLC (WRPS), and various contractor initiatives to reduce their legacy inventory holdings.

**2016 Hanford Bridging Partnership Small Business Symposium** – MSA Procurement staff participated in the November 2016 symposium to show MSA’s commitment for Small Business socioeconomic diversity at the Hanford Site. MSA had the opportunity to meet with several local and regional Small Business concerns who are qualified to perform work at Hanford.

**Construction Supervisor Annual Training** – MSA Procurement set up a Construction Supervisor Orientation for the Basic Ordering Agreement (BOAs) in November. Approximately 15 individuals attended the annual training.

## PROPERTY AND WAREHOUSE MANAGEMENT

**Material Acquisitions:** Removal of all pallet racking systems at the 4732A warehouse was accomplished in preparation for use of the facility by MSA Property and Warehouse Management and Material Acquisitions personnel.



*4632A Warehouse*

## FINANCE AND ACCOUNTING

**Financial Services** – MSA continues to display excellent collaboration with the other Hanford Contractors through disbursements accounting and payroll services. For Fiscal Year-to-Date as of November 30, 2016, MSA performed payroll/accounting for other Hanford contractors, as shown below:

- Performed manual entry and approval of 418 timecards for those on short-term disability for CHPRC and WRPS;
- Processed 37 cash receipts into the accounts payable system for CHPRC, WRPS, and Fluor Hanford (FH);
- Processed 22,846 paychecks/advices for CHPRC and WRPS employees;
- Processed 475 physical checks to vendors for FH, CHPRC, and WRPS;
- Processed 825 electronic payments to vendors for FH, CHPRC, and WRPS;
- Entered 158 invoices into the accounts payable vendor maintenance system for FH, CHPRC, and WRPS (includes payments for union dues, garnishments, and general contract and purchase order invoices); and
- Processed 5,695 timecard corrections for CHPRC, and WRPS.

## Support to Ongoing Audits –

DOE Invoice Audit FY 2014 follow up: DOE requested additional data related to Travel and Education, specifically mixing per diem with actuals on the same day, and applicability of degree plan to present work scope. MSA Finance provided additional information to validate MSA's costs in this area.



*KPMG FY 2010/FY 2009 ICS Audit Support:* DOE requested MSA respond to KPMG Observations on FY 2009 and FY 2010 Incurred Cost Audits. MSA Finance and Accounting team is preparing responses and gathering requested data. MSA has 45 days to respond. The FY 2010 response is due December 1, 2016, and the FY 2009 response is due December 15, 2016.

## LOOK AHEAD

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### PROGRAM CONTROLS

**Performance Management** – Members of MSA’s Systems Controls staff have begun meeting with other Hanford contractors (Washington River Protection Solutions and CH2MHill Plateau Remediation Company) to discuss a path forward for the upcoming Cobra 8 upgrade.

### CONTRACTS AND PROCUREMENT

MSA has received three requests for Truth in Cost and Pricing Data (TCPD) submissions on active proposals. MSA is on track for submission of the Long Term Stewardship 100 B/C and 100 D/H Area Proposal, and the IT Transition (Washington Closure Hanford [WCH] to CHPRC) proposal. MSA has negotiated with RL for an extension on the Homeland Security Presidential Directive (HSPD-12) Multifactor Authentication Acceleration proposal so MSA resources can continue to prioritize their support to the issue of the Logical Access Control System (LACS) cards.

In addition, two ROM requests are in work to be provided to RL: 1) the Manhattan Project National Historical Park Land Management Draft Transition Plan, and 2) an additional receptionist in support of RL’s move to the 2430 Steven’s Center facility.

## MAJOR ISSUES

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None to report.

### SAFETY PERFORMANCE

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There were no Occupational Safety and Health Administration (OSHA) injury cases reported for Business Operations in November 2016. There was one First Aid injury reported during the month, caused when an employee suffered an injured shoulder while moving some objects on the job.



## BASELINE PERFORMANCE

Table BO-1. Business Operations Cost/Schedule Performance (dollars in millions).

Fund Type	November 2016					Contract-to-Date				
	BCWS	BCWP	ACWP	SV	CV	BCWS	BCWP	ACWP	SV	CV
RL-0011 – Nuclear Mat Stab & Disp PFP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1.3	\$1.3	\$1.3	\$0.0	\$0.0
RL-0012 – SNF Stabilization & Disp	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.5	\$0.5	\$0.5	\$0.0	\$0.0
RL-0013 – Solid Waste Stab & Disp	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1.6	\$1.6	\$1.6	\$0.0	\$0.0
RL-0020 - Safeguards & Security	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.5	\$0.5	\$(4.0)	\$0.0	\$4.5
RL-0030 – Soil & Water Rem-Grndwtr/Vadose	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1.4	\$1.4	\$1.4	\$0.0	\$0.0
RL-0040 - Nuc. Fac. D&D – Remainder Hanford	\$0.0	\$0.0	(\$0.2)	\$0.0	\$0.2	\$2.8	\$2.8	\$0.8	\$0.0	\$2.0
RL-0041 - Nuc Fac D&D - RC Closure Proj	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Site-wide Services	\$1.0	\$1.0	\$1.3	\$0.0	(\$0.3)	\$103.3	\$103.3	\$77.5	\$0.0	\$25.8
<b>Subtotal</b>	<b>\$1.0</b>	<b>\$1.0</b>	<b>\$1.1</b>	<b>\$0.0</b>	<b>(\$0.1)</b>	<b>\$111.4</b>	<b>\$111.4</b>	<b>\$79.1</b>	<b>\$0.0</b>	<b>\$32.3</b>

ACWP = Actual Cost of Work Performed

BCWP = Budgeted Cost of Work Performed

BCWS = Budgeted Cost of Work Scheduled

BAC = Budget at Completion

CV = Cost Variance

CTD = Contract-to-Date

FYTD = Fiscal Year-to-Date

SV = Schedule Variance

## BASELINE PERFORMANCE VARIANCE

**(WBS Elements 3001.06.01 [Business Operations], 3001.06.02 [Human Resources], and 3001.90.04 [MSA Transition])**

**Current Month Cost Variance (-\$0.1M)** – The negative variance in RL-40 is due to higher than planned general supplies inventory costs in Warehouse. Offsetting revenue is expected in upcoming months to mitigate. The negative variance in SWS is partially due to unplanned 2430 Stevens Relocation costs not included in the contract baseline. Expenditures will remain in accordance with approved funding and Integrated Investment Portfolio (IIP) scope.



## **BASELINE PERFORMANCE VARIANCE (continued)**

**Contract-to-Date (CTD) Cost Variance (+\$32.3M)** – The positive CTD cost variances in RL-20, RL-40 and Site-wide Services are primarily due to September 2016 credits associated with Affiliate Fee on Information Technology scope and Training on Overtime pending final resolution.



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# MISSION SUPPORT ALLIANCE

"WE WILL MEASURE OUR SUCCESS BY OUR CUSTOMERS' SUCCESS"



## Emergency Services

Craig Walton, Vice President

## Monthly Performance Report

November 2016



*Hanford Fire Department ladder testing*



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## INTRODUCTION

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The Emergency Services (ES) organization supports the site environmental clean-up missions by providing protective forces, physical security systems, information security, personnel security, nuclear materials control and accountability, cyber security, program management, fire and emergency response services, and emergency operations.

## KEY ACCOMPLISHMENTS

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### EMERGENCY MANAGEMENT PROGRAM (EMP)

**Hanford Fiscal Year First Quarter Limited Exercise** – EMP personnel developed and safely conducted the Hanford FY 2017 1<sup>st</sup> Quarter Limited Exercise on November 17, 2016, at the Waste Encapsulation and Storage facility. Collaborating with CH2M Hill Plateau Remediation Company, (CHPRC) staff, EMP developed a realistic exercise that enabled CHPRC responders, Hanford Patrol, Hanford Fire Department, and the Hanford Emergency Operations Center to practice and demonstrate emergency response readiness. The exercise used multi-contractor and a Department of Energy (DOE) team to safely control and effectively evaluate response, which meets the DOE Order 151.1C requirement for DOE-RL to evaluate the facility emergency response once every three years.

**Radiological Assistance Program (RAP) Region 8 Support** – On November 3, 2016, MSA participated in training with Civil Support Personnel from the states of Hawaii, Washington and Oregon as well as the territory of Guam. RAP also provided assistance for a Hanford site tour with the Federal Bureau of Investigation on November 15, 2016.

**Contract Deliverable Submitted For Approval** – Emergency Management personnel submitted Contract Deliverable CD0046, *“Radiological Assistance Program Self-Assessment and Corrective Actions”*, to RL for approval ahead of schedule on November 8, 2016.

### HANFORD FIRE DEPARTMENT (HFD)

**Hanford Fire Department Annual Ladder Testing** – On November 7-11, 2016, Hanford Fire Department personnel and a third party subcontractor conducted annual Ladder Test and Inspections. Ladder testing is driven by National Fire Protection Association (NFPA) Standard 1932 requirements for the use, maintenance, inspection, and service testing of fire department ground ladders.



## SAFEGUARDS AND SECURITY (SAS)

### Safeguards and Security Contract Deliverables Approved/Submitted:

- Contract Deliverable CD0008, *"Force-On-Force Test Results"*, approved by RL on November 1, 2016; and
- Contract Deliverable CD0008, *"Force-On-Force Test Results"*, submitted November 30, 2016.

## LOOK AHEAD

Nothing to report.

## MAJOR ISSUES

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Nothing to report.

## SAFETY PERFORMANCE

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Emergency Services conducted 16 separate Safety Reset presentations in November. MSA wants a robust safety culture by fostering two-way communication by staying engaged in safety awareness, while at work and at home. Emergency Services Management and Safety leaders attended shift meetings for Hanford Patrol and Hanford Fire Department thereby ensuring everyone had the opportunity to share in safety focused conversations to aide in the improvement our safety culture.

Emergency Services reported no Occupational Safety and Health Administration (OSHA) recordable injuries in November. There were three first-aid events reported, two involving knee and leg pain during regular work, and one involving a hand injury while turning a valve. One minor vehicle accident occurred when an employee was backing out of a parking space and hit another employee's private vehicle. No injuries occurred.



## BASELINE PERFORMANCE

Table ES-1. Emergency Services Cost/Schedule Performance (dollars in millions).

Fund Type	November 2016					Contract-to-Date				
	BCWS	BCWP	ACWP	SV	CV	BCWS	BCWP	ACWP	SV	CV
HSPD-12 (RL-0011,RL-0012, RL-0013, RL-0030)	\$0.2	\$0.2	\$0.2	\$0.0	\$0.0	\$2.6	\$2.6	\$2.2	\$0.0	\$0.4
RL-0020 – SAS	\$4.1	\$4.1	\$4.7	\$0.0	(\$0.6)	\$412.6	\$412.6	\$426.1	\$0.0	(\$13.5)
Site-wide Services	\$1.9	\$1.9	\$2.9	\$0.0	(\$1.0)	\$188.6	\$188.6	\$202.9	\$0.0	(\$14.3)
<b>Subtotal</b>	<b>\$6.2</b>	<b>\$6.2</b>	<b>\$7.8</b>	<b>\$0.0</b>	<b>(\$1.6)</b>	<b>\$603.8</b>	<b>\$603.8</b>	<b>\$631.2</b>	<b>\$0.0</b>	<b>(\$27.4)</b>

ACWP = Actual Cost of Work Performed

BCWP = Budgeted Cost of Work Performed

BCWS = Budgeted Cost of Work Scheduled

CV = Cost Variance

CTD = Contract-to-Date

SV = Schedule Variance

**Explanation of Fund Type Assignments by Project Baseline System (PBS) and Work Breakdown Structure (WBS) - HSPD-12** – Work is funded from four different PBSs (RL-0011, RL-0012, RL-0013, RL-0030), and is budgeted under WBS element 3001.01.05.02 in four separate work packages to accommodate cost collection by PBS. Also, RL-0020 work is budgeted under WBS 3001.01.01 and Site-wide Services work is budgeted under WBSs 3001.01.02, 3001.01.03, and 300.01.05.01.

### BASELINE PERFORMANCE VARIANCE:

**Current Month (CM) Cost Variance (CV) (-\$1.6M)** – CM negative CV is attributed to several baseline differences as described in the Contract-to-Date variance. ES is working to Department of Energy’s Richland Operations Office directed contract baseline re-alignment guidance that provides for a higher spending target than the baseline.

**Contract-to-Date (CTD) CV (-\$27.4M)** – The primary drivers for the negative CTD CV are the continued storage of Special Nuclear Material on the Hanford Site (not in the original baseline assumptions); implementation of new Design Basis Threat guidance, which was implemented subsequent to the MSA baseline proposal; and a baseline budgeting omission for platoon shift hours with the HFD. This activity is being worked according to RL-directed contract baseline re-alignment guidance that provides for a higher spending target than the baseline. No mitigating actions are in place at this time to reduce the overall cost overrun.



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# MISSION SUPPORT ALLIANCE

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## Environmental, Safety, & Health

Mike Wilson, Vice President

### Monthly Performance Report

November 2016

**YOU** are at the Intersection of MSA Safety and Environmental Programs

**Y**ou are at the intersection of:  
Voluntary Protection Program  
Integrated Safety Management System

**O**ur programs include:  
Environmental Mgmt System  
Automated Job Hazard Analysis  
Employee Job Task Analysis

**U**nderstand the importance of:  
Stop Work Authority  
Zero Accident Council

**They DON'T Work without YOU!**

2015-10-01-16 Rev 0  
October 25, 2016



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## INTRODUCTION

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The Environmental, Safety & Health (ES&H) organization includes the following work groups:

- Worker Protection;
- Integrated & Site Wide Safety Standards;
- Safety & Health Program Support;
- Hanford Atomic Metal Trades Council/Hanford Guards Union (HAMTC/HGU) Safety Representatives;
- Environmental Integration Services (EIS);
- Public Safety & Resource Protection (PSRP); and
- Radiological Site Services (RSS).

This team ensures that all environmental, safety and health requirements are met so that Mission Support Alliance, LLC (MSA) provides its services in a safe and environmentally sound manner. The ES&H organization develops, implements and improves Integrated Safety Management, worker safety and health and radiation safety procedures that govern the work performed by MSA.

## KEY ACCOMPLISHMENTS

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**Safety Reset Held to Re-Focus on Safety** – On Monday, November 28, 2016, following the Thanksgiving holiday, MSA held a company-wide Safety ReSet. The intent was to have meaningful discussion and engage the workforce in safety conversations to re-set the focus on working safely after a long weekend. Comments, suggestions and concerns were captured and will be analyzed by the senior leadership team. Items will be entered into safety logbooks and tracked to completion, added to the 2017 Safety Improvement Plan, or developed into focused safety messages for delivery throughout 2017.

**Inspection Coordinator Roundtable** – Environmental Integration Services (EIS) organized and conducted an inspection coordinator roundtable meeting that included inspection coordinators from each of the Hanford contractors and representatives from the Department of Energy (DOE) Richland Operations Office (RL) and DOE Office of River Protection (ORP). The purpose of the meeting was to share lessons learned during recent inspections, and provide a forum for general information sharing and integration of efforts.



**City of Richland Inspection of 300 Area Combined Sewer Permit** – MSA, CH2M Plateau Remediation Company (CHPRC), and Pacific Northwest National Laboratories (PNNL) discharge industrial wastewater to the Richland Publicly Owned Treatment Works (POTW). MSA is responsible for ensuring compliance with the terms and conditions in the permit and manages discharges to the POTW from the 300 Area Fire Station and 385 Building. EIS coordinated and participated in a City of Richland unannounced inspection of the 300 Area Combined Sewer Permit. No regulatory compliance issues or concerns were identified out of the inspection.

**RCRA Guidance Developed** – EIS worked with CHPRC to develop guidance on Resource Conservation and Recovery Act (RCRA) requirements for removing free liquids from waste. The guidance will be disseminated to contractors and the DOE through a weekly RCRA awareness training publication.

**Aerosol Cans Backlog Processed** – EIS completed sorting and packaging the backlog of aerosol cans that were stored at the Centralized Consolidation/Recycling Center (CCRC) for puncturing. Two 55-gallon drums were packaged in early November, one drum with flammable aerosol cans and one drum with non-flammable aerosol cans. These two drums were shipped to the 90-Day Accumulation Area and placed into storage with six drums containing aerosol cans shipped the previous week. All eight drums (containing over 1,400 cans) are to be shipped offsite for incineration. Routine can puncturing will resume under the revised process at the end of November, 2016.

**Consolidated Energy Data Report/Site Sustainability Plan** – EIS completed the Site Sustainability Plan draft submittal for the review of RL and the Office of Environmental Management. The site's total population and commute data was analyzed and calculated for fiscal year 2016. Results showed that the Hanford population and the number of Richland (in-town) work locations have increased. The data also shows that business ground travel has decreased.

**Ecological Monitoring Approval to CHPRC** – PSRP Ecological Monitoring and Environmental Surveillance with approval from RL, provided information from MSA's Ecological Monitoring and Environmental Surveillance programs to CHPRC. The data and Geographic Information Systems (GIS) files will support CHPRC's biointrusion and biomobilization work in support of the development of the sample and analysis plan for Comprehensive Environmental Response, Compensation, and Liability Act activities in the inner and outer areas of the Hanford site. MSA provided data and GIS information for the entire study area, plus a 2km buffer area surrounding the outer area.



**Archaeological Survey Report Completed** – PSRP Cultural and Historic Resource Program (CHRP), completed and delivered the archaeological survey report to U.S. Fish and Wildlife Service (USFWS) on November 29, 2016. The CHRP conducted an archaeological survey of 4,650 acres on the Hanford Reach National Monument in support of a large scale reseeding effort by the USFWS. The CHRP archaeologists recorded over 200 previously unrecorded archaeological sites and over 150 isolated artifacts during the course of the survey.

## LOOK AHEAD

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**Ultra-Low Sulfur Diesel (ULSD) Fuel Certification** – As a wholesale purchaser/consumer of ULSD fuel, Hanford is not required to have an oversight program or conduct sampling/testing. Each delivery of ULSD fuel by the common carrier has a product transfer document certifying the fuel meets ULSD fuel requirements (i.e., 15 ppm sulfur, maximum). A December 5, 2016 meeting has been setup between the State of Washington Department of Ecology, RL and MSA to discuss ULSD fuel certification at Hanford. (EIS investigated the regulatory requirements regarding ultra-low sulfur diesel fuel certification at Hanford). The State of Washington Department of Ecology is asserting that Hanford bears some responsibility for certifying the quality of Ultra-Low Sulfur Diesel (ULSD) fuel delivered to Hanford from nearby fuel terminals by a common carrier. Under the concept of presumptive liability (40 CFR 80.30), each entity in the fuel production and distribution network (i.e., refineries, pipelines, terminals, carriers, and wholesale purchasers/consumers) is presumed liable for fuel violations unless they can provide an affirmative defense demonstrating otherwise. Affirmative defenses are established through oversight programs, sampling/testing, and product transfer documents as custody of the fuel changes hands.

## MAJOR ISSUES

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**Unplanned External EMS Audit** – Bureau Veritas is requiring an additional full-system Environmental Management System (EMS) audit to maintain the MSA registration certificate. The MSA audit has been scheduled for the week of January 23, 2017; it will be a full week audit. The audit team has been identified and MSA is waiting on the audit plan to establish a schedule.

**General Industry Fall Protection Final Rule Implementation** – The Occupational Safety and Health Administration (OSHA) issued its final rule for General Industry Fall Protection (29 CFR 1910 Subparts D and I) on November 18, 2016, with an implementation period of 60 days. As such, companies are expected to be in compliance with the new standard by January 17, 2017. In late October, the Fall



Protection Program committee held three sessions to evaluate the current site program against the new Proposed Rule. The committee agreed to utilize a subcommittee to make proposed revisions to DOE-0346, based upon the new Final Rule requirements. The subcommittee completed its first draft of the Program, which will be reviewed for acceptance by the full Fall Protection Committee in several scheduled meetings beginning December 5, 2016. The subcommittee identified several areas in the proposed rule that are not applicable to the site program, and contractors will instead have to address those requirements in their current contractor procedures (e.g., related to ladders, scaffolding and aerial lifts). To allow time for adjusting their company procedures as applicable, each contractor was notified of those requirements. With the December holidays, this will be a very tight schedule for approval, publication and implementation of a major revision to DOE-0346.

## SAFETY PERFORMANCE

ES&H reported no Occupational Safety and Health Administration Recordable injuries in November.

## BASELINE PERFORMANCE

Table ES&H-1. ES&H Cost/Schedule Performance (dollars in millions).

Fund Type	November 2016					Contract-to-Date				
	BCWS	BCWP	ACWP	SV	CV	BCWS	BCWP	ACWP	SV	CV
Site Wide Services	\$2.2	\$2.2	\$2.3	\$0.0	(\$0.1)	\$208.3	\$208.3	\$210.5	\$0.0	(\$2.2)
<b>Subtotal</b>	<b>\$2.2</b>	<b>\$2.2</b>	<b>\$2.3</b>	<b>\$0.0</b>	<b>(\$0.1)</b>	<b>\$208.3</b>	<b>\$208.3</b>	<b>\$210.5</b>	<b>\$0.0</b>	<b>(\$2.2)</b>

ACWP = Actual Cost of Work Performed

BCWP = Budgeted Cost of Work Performed

BCWS = Budgeted Cost of Work Scheduled

CV = Cost Variance

CTD = Contract-to-Date

SV = Schedule Variance

## BASELINE PERFORMANCE VARIANCE

**SWS – ES&H (WBS 3001.02.01, 3001.02.02, 3001.02.03, 3001.02.04, 3001.04.11 and 3001.06.03)**

**Current Month (CM) Cost Variance (CV) (-\$0.1M):** – CM unfavorable CV is attributed to baseline differences as described in the Contract-to-Date variance. ES&H is working to RL-directed guidance that provides for a higher spending target than the baseline.

**Contract-to-Date (CTD) CV (-\$2.2M)** – The unfavorable CTD CV is primarily due to the approved funding and work scope continuing at a higher level of support than assumed in the contract baseline. There are no other potential contributing



factors. Prior to FY 2014, funds and budget were more closely aligned, resulting in minimal variances. In FY 2014, the Environmental funding was virtually cut in half, resulting in staffing reductions and CTD underruns. In FY 2015, the Environmental funding was restored, and then both Environmental and Safety/Health programs received funding increases to support the level of service required by the Hanford Site. The resulting overruns consumed the prior CTD underrun. In FY 2016, the funding was again significantly higher than budgeted values, resulting in additional CTD overruns.



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# MISSION SUPPORT ALLIANCE

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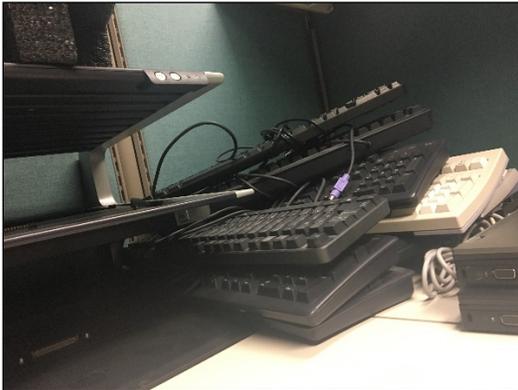


## Information Management

Todd Eckman, Vice President

## Monthly Performance Report

November 2016



*Computer Equipment Pulled for the Hardware Nationalization Program*



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## INTRODUCTION

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Mission Support Alliance, LLC's (MSA's) Information Management (IM) organization brings best-in-class IM services to the Hanford Site. A variety of infrastructure, services, and applications are provided that include support to safety, security, site infrastructure, and cleanup missions; administrative support systems and processes; telecommunications and network infrastructure; records, document, and content management; cyber security; network operations and security center; desktop services; Information Support services including reproduction services; site forms; multi-media services; geospatial information management and site mapping services; and the Mission Service Desk.

The goal of IM is to ensure technology solutions and innovation in supporting every project's success associated with the Hanford Site cleanup mission. IM's goal is achieved by confirming that top-quality services and solutions are delivered in a professional and timely manner.

## KEY ACCOMPLISHMENTS

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### INFRASTRUCTURE SYSTEMS

**Annual NetApp Operating System (OS) Upgrade Complete** – The NetApp storage team successfully completed the annual OS upgrades. Over the course of two weeks, the team upgraded the OS on all eight NetApp appliances. All upgrades were completed with little to no outages. These upgrades put the appliances at the latest OS, and applied inherent security upgrades and bug fixes.

### CONTENT & RECORDS MANAGEMENT

**Time Motion Study Produced** – At the request of the Washington River Protection Solutions (WRPS) records manager, the MSA Content and Records Management (C&RM), Information Clearance team produced a time-motion study. The time-motion study analyzed the time taken for review and approval of items that have been processed using the Records Management Access Portal - Clear a Document Module and Integrated Document Management System (IDMS) Clearance Workflow. The results indicated that rush workflows take as little as one day to complete the entire process, while normal workflows have been pending as long as ten days or, potentially, more while under review.

**New Website Feature Added** – A new feature was added to the Administrative Record (AR) website for Hanford that allows users to search the content of AR documents. The documents in the AR collection are important in that they are considered and/or relied on to arrive at final decisions for remedial actions or hazardous waste management.



Adding the ability to search content should increase users' ability to find records by enabling them to search criteria on information found within the documents' content.

## IM BUSINESS OFFICE

### **November Information Technology (IT) User Based Services (UBS) Summary**

**Complete** – The Information Management Business Office (IMBO) completed the November IT UBS Summary Statements for distribution to the various Hanford companies. This action supports the Finance organization that uses these statements to notify the IT monthly service users of their company's monthly charges.

**Hardware Nationalization Program Continues** – As part of the IT Hardware Nationalization Program, the IMBO team pulled computer equipment for either the upgrade or installation of new computers for different contractors at the site. Refreshing the older computers with new equipment is part of MSA's support for MSA staff and other Hanford contractors in meeting U.S. Department of Energy (DOE) directives for replacing computers and computer hardware. This keeps the user updated with newer equipment so they can complete their work more efficiently.

## LOOK AHEAD

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**Firewall and Proxy Replacement** – The current end-of-life core firewalls and proxies are to be replaced with a new firewall. Work has begun, and completion is expected in Fiscal Year (FY) 2017.

**Washington Closure Hanford (WCH) Records Transfer** – MSA C&RM participated in a customer support meeting with WCH, Records and IM, Information Technology, and Human Resources staff to discuss turning over WCH records to MSA at the end of the WCH contract. WCH plans are to transfer approximately 12,000 records to IDMS in two stages. The first stage occurred in September at the end of the WCH contract; the second stage is planned for a few months later to allow for the final records to be completed.

**Key Performance Goals Dashboard Revision** – IM is working on the development of the FY Work Plan change to the DOE Richland Operations Office (RL) Key Performance Goals dashboard. This change will tie the Operations Key Performance Goals into flat file metrics, eliminating the need for the projects to manually enter the data in two places. Once completed, the system will automatically generate the necessary data and calculate the status of completed FY Work Plan metrics for the Key Performance Goals.



## MAJOR ISSUES

None to report.

## SAFETY PERFORMANCE

There were no OSHA recordable injuries reported in November. There were no first-aid injuries reported and no vehicle accidents reported.

## BASELINE PERFORMANCE

Table IM-1. IM Cost/Schedule Performance (dollars in millions).

Fund Types	November 2016					Contract-to-Date				
	BCWS	BCWP	ACWP	SV	CV	BCWS	BCWP	ACWP	SV	CV
RL-0020 - Safeguards & Security	\$0.2	\$0.2	\$0.2	\$0.0	\$0.0	\$12.9	\$12.9	\$15.7	\$0.0	(\$2.8)
RL-0040 - Nuc. Fac. D&D - Remainder Hanford	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	\$0.3	\$0.3	\$0.0	\$0.0
Site-Wide Services	\$2.2	\$2.2	\$1.3	\$0.0	\$0.9	\$219.8	\$219.8	\$208.6	\$0.0	\$11.2
<b>Subtotal</b>	<b>\$2.4</b>	<b>\$2.4</b>	<b>\$1.5</b>	<b>\$0.0</b>	<b>\$0.9</b>	<b>\$233.0</b>	<b>\$233.0</b>	<b>\$224.6</b>	<b>\$0.0</b>	<b>\$8.4</b>

ACWP = Actual Cost of Work Performed

BCWP = Budgeted Cost of Work Performed

BCWS = Budgeted Cost of Work Scheduled

CV = Cost Variance

CTD = Contract-to-Date

SV = Schedule Variance

## BASELINE PERFORMANCE VARIANCE

### Current Month (CM) Cost Variance (CV) (+\$0.9M)

**CM Site-Wide Services (SWS) (+\$0.9)** – The positive CM CV is due to savings associated with the self-performance of Software Engineering Services.

**Contract-to-Date (CTD) CV (+\$8.4M)** – The majority of the CTD CV in these accounts are due to the approved funding and Integrated Investment Portfolio (IIP) scope being divergent from the baseline. CTD CV will continue and expenditures will be in accordance with approved funding and MSA Integrated Investment Portfolio (IIP) scope.

**RL-20 (-\$2.8M)** – The baseline budget did not include Unclassified Cyber Security. Performance of this approved IIP work has resulted in an unfavorable CTD CV.



**SWS (+\$11.2M)** – The majority of the CTD CV in these accounts are due to the approved funding and IIP scope being divergent from the baseline. CTD CV will continue and expenditures will be in accordance with approved funding and IIP scope. Areas that are divergent from the current baseline include: IM Project Planning & Controls; IM Intranet & Collaboration; IT Cross Functional Services; Information Systems; Business Management Systems; IM System Work Portal; Hanford Site Emergency Alerting System; Long-Term Storage; Major Collection Management; Inventory & Schedule Management; Information Resources and Content Management; Multi-Media Services; Geospatial; and Mail Services.

**Note:** IM is beginning to realize the cost savings associated with the self-performance of much of the IT scope.

# MISSION SUPPORT ALLIANCE

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# Portfolio Management

Steve Young, Vice President

## Monthly Performance Report

November 2016



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## INTRODUCTION

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The Mission Support Alliance, LLC (MSA) Portfolio Management (PFM) organization delivers an integrated planning and information management approach that allows the U.S. Department of Energy (DOE), Richland Operations Office (RL) to make informed decisions on cleanup efforts. This approach aligns and integrates DOE and Hanford contractor planning and performance data and provides the information in meaningful outputs for analysis and action. Through this integration, MSA PFM provides technical support and expertise in project, portfolio, and enterprise management for continual optimization of the cleanup mission lifecycle and achievement of the Hanford End State Vision. As such, the MSA PFM organization supports and performs: Lifecycle Planning; Fiscal Year (FY) Work Planning; Baseline Decision Management; Mission Support Planning; Budget Formulation Planning; Analytical Tool Development; Project Interface; and Analytics. MSA PFM provides analytical and unbiased recommendations to assist DOE cleanup and resource allocation decisions.

## KEY ACCOMPLISHMENTS

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**Analytical Tools** – On November 15, and 17, 2016, Portfolio Management (PFM) demonstrated the MSA Integrated Planning Assumption Dataset (MIPAD) tool to RL managers and staff from the Assistant Manager for Mission Support (AMMS), Assistant Manager for River and Plateau (AMRP) organization and the Assistant Manager for Business and Financial Operations (AMB). The new MIPAD tool was developed to integrate project schedules and milestones and to display assumptions and decision data related to MSA’s work scope associated with the RL 2016-2028 Vision. It provides users with multiple methods to query and filter integrated project data while enabling them to perform planning case analysis with data accuracy and consistency.

MIPAD displays the impacts of multiple user-defined funding scenarios against the approved baseline by allowing users to apply optional priority order of projects. It also provides a drill-down capability to specified milestones, links to data source documents and the geographic location of the work associated with the milestones by integrating milestone project data with the GeoVis tool. Finally, the MIPAD tool can automatically generate reports from user-defined datasets without the need to format the data, verify accuracy of the data and publish the reports.

**Scope Management Information System** – At the request of AMRP, PFM continued development of the Scope Management Information System (SMIS), which is designed to generate, retrieve, display, analyze, and maintain configuration control of data based on various program baseline work scope. This system will allow RL to clearly define the cleanup mission program scope and subdivide that scope into manageable elements



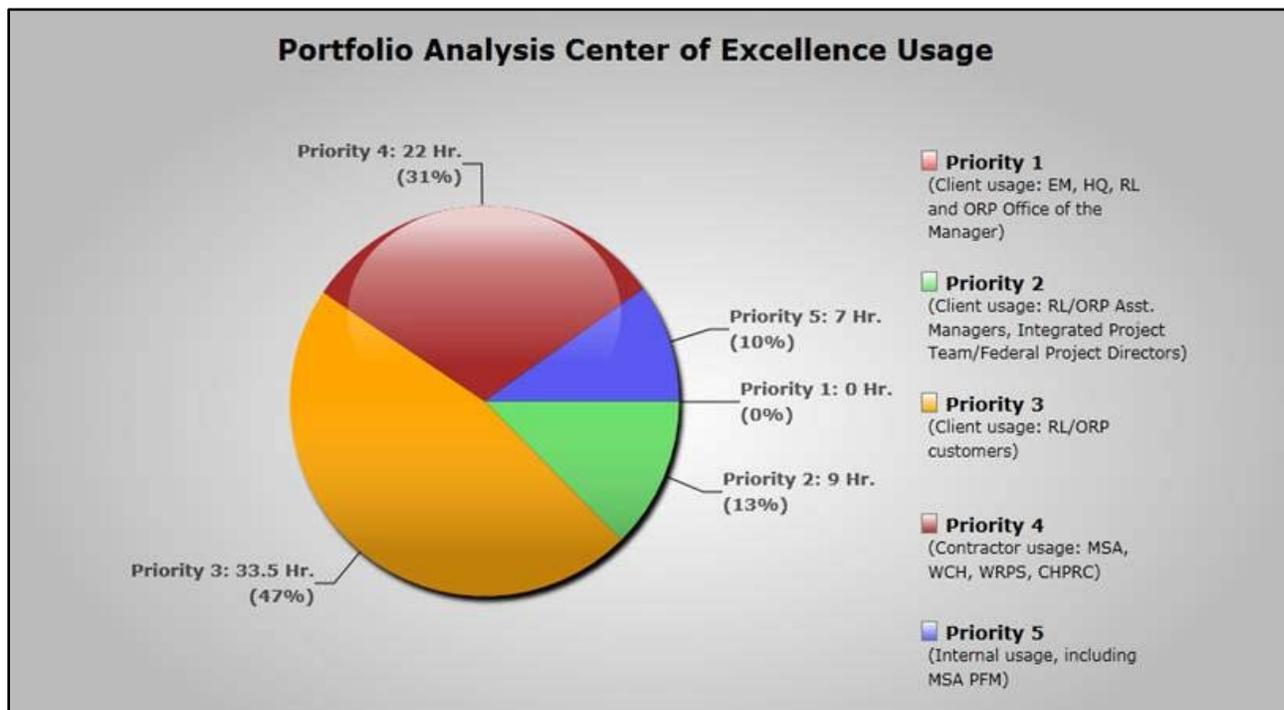
resulting in a Performance Baseline necessary for small, medium and even large project acquisition packages. On November 17, 2016, PFM provided a demonstration of the new Baseline Change Request upload process and application, which is a part of the SMIS program. Based on feedback, a few minor modifications were completed and the tool was released for final testing with plans to deploy the program no later than December 15, 2016.

**Budget Formulation** – PFM completed updates to the Ranked Integrated Priority List (RIPL) application as requested by AMB. Changes included adding two new columns to the Master Data area, plus an additional Milestone “Status” column placed under the Milestone Lookup/Tabs region. PFM developers will pursue further enhancements such as adding a drop-down list of Milestone Status values to the lookup column, and value constraints on the Change Request number field in a future release. These changes will enhance the functionality of RIPL, and allow a crosswalk between the Integrated Priority List (IPL) and the Execution IPL. The release of the RIPL was accomplished on November 30, 2016, ahead of the anticipated completion date.

**Dashboards and SharePoint** – In support of RL, PFM completed development and deployed the Contractor Feedback and Improvement Tool (FIT) dashboard based on recent feedback and design specifications. This upgraded dashboard will provide a visual representation of the overall status and health of the Contractor Feedback and Improvement process by sorting and displaying all pertinent data, while also providing Feedback and Improvement data reporting capabilities organized by internal/external source of data, priority levels, timeliness, and quality in developing and implementing appropriate corrective actions including effectiveness of the corrective action.

**Integrated Technical Data-mart (ITD)** – In support of AMRP project status reporting, PFM consolidated and deployed Earned Value and RL Funding Forecast metrics for October, 2016. This data was necessary to support key dashboards as well as performance reports that help RL analyze cost performance and Earned Value data reported from the contractors.

**Portfolio Analysis Center of Excellence (PACE)** – Metrics for the PACE are provided in hours of usage via a dashboard. The Priority levels and the hours of usage for November are displayed in the chart below:



PFM and staff from the DOE-RL Information Management Team continue to work closely discussing the strategy of relocating the PACE to the Stevens Center in close proximity to RL and the DOE Office of River Protection. Cost estimates are currently being updated, based on a final consensus of needed equipment as agreed to with RL.

## LOOK AHEAD

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Nothing to report.

## MAJOR ISSUES

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Nothing to report.

## SAFETY PERFORMANCE

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No Occupational Safety and Health Administration (OSHA) Recordable injury or First Aid injury cases were reported for PFM in November 2016.



## BASELINE PERFORMANCE:

Table PFM-1. Portfolio Management Cost/Schedule Performance (dollars in millions)

Fund Type	November 2016					Contract-to-Date				
	BCWS	BCWP	ACWP	SV	CV	BCWS	BCWP	ACWP	SV	CV
1000HQ – DOE-HQ Funding	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.1	\$0.1	\$0.0	\$0.0
1000PD - Richland Program Direction	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	\$0.3	\$0.3	\$0.0	\$0.0
RL-0011 - Nuclear Mat Stab & Disp PFP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
RL-0030 - Soil & Water Rem-Grndwtr/Vadose	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.1	\$0.1	\$0.0	\$0.0
RL-0040 - Nuc Fac D&D Remainder Hanfrd	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.1	\$0.0	\$0.0	\$0.1
RL-0041 - Nuc. Fac. D&D RC Closure Proj	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1.1	\$1.1	\$1.1	\$0.0	\$0.0
Site-Wide Services	\$0.5	\$0.5	\$0.3	\$0.0	\$0.2	\$51.5	\$51.5	\$46.4	\$0.0	\$5.1
<b>Subtotal</b>	<b>\$0.5</b>	<b>\$0.5</b>	<b>\$0.3</b>	<b>\$0.0</b>	<b>\$0.2</b>	<b>\$53.2</b>	<b>\$53.2</b>	<b>\$48.0</b>	<b>\$0.0</b>	<b>\$5.2</b>

ACWP = Actual Cost of Work Performed

CV = Cost Variance

BCWP = Budgeted Cost of Work Performed

CTD = Contract-to-Date

BCWS = Budgeted Cost of Work Scheduled

SV = Schedule Variance

## BASELINE PERFORMANCE VARIANCE

**Current Month Cost Variance (CV) (+\$0.2M)** – The CM underrun is due to an open position in the Software Engineering Services (SES) team that supports PFM, reduced effort on the part of SES staff because they are supporting other MSA work, reduced support from staff augmentation due to provision of support to others as well as MSA PFM staff temporarily supporting other organizations.

**Contract-to-Date (CTD) CV (+\$5.2M)** – The positive CTD CV is primarily due to less PFM support required than assumed for integrated planning actions.

# MISSION SUPPORT ALLIANCE

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## President's Office

W. K. Johnson, President

R. E. Wilkinson, Chief Operations Officer

## Monthly Performance Report

### November 2016



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## INTRODUCTION

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The President's Office is comprised of site-wide services consisting of Quality Assurance (QA), Performance Oversight, Mission Support Alliance (MSA) Engineering, and External Affairs.

The QA and Performance Oversight organizations establish quality requirements for MSA and its subcontractors. Acquisition Verification Services (AVS) and QA provide audit and inspection services for the Other Hanford Contractors, and the Integrated Evaluation Plan for annual operational assessments. It also provides MSA management with the information to evaluate and improve all aspects of the organization through Corrective Action Management.

The MSA Engineering organization provides the technical and engineering skills necessary to plan, review and coordinate all engineering aspects of Mission Support Contract work. It produces consistent, high quality engineering products that enhance the reliability of the mission critical site infrastructure systems and facilities. Monthly project status updates from Engineering are included within the other Functional Organization reports. The MSA Engineering Organization also includes the MSA Maintenance Management Program (MMP)/ Reliability Engineering.

The MSA MMP provides reliable and cost-effective infrastructure and site services integral and necessary to accomplish the Hanford Site environmental clean-up mission. This service includes the MSA core value of creating a culture of safe and secure operations through the maintenance of Hanford Site's infrastructure assets and services in accordance with DOE O 430.1B, Chg. 2, *Real Property Asset Management*, and CRD O 430.1b, Chg. 1 (Supplemental Rev. 1). These MSA core values are met by applying availability, reliability and maintainability principles and practices to both the plant upgrade and Operation and Maintenance (O&M) Program phases of Hanford Infrastructure Assets.

The External Affairs department provides a myriad of communication functions for Department of Energy (DOE), Hanford Site contractors, employees, and the public. The group supports Richland Operations (RL), addressing specific contractual objectives, commitments and milestones, and manages the Hanford Speakers Bureau and Hanford Public Tour programs. The External Affairs function also facilitates community outreach on behalf of MSA and its employees.



## KEY ACCOMPLISHMENTS

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### EXTERNAL AFFAIRS

**Beryllium Health and Safety Symposium** – MSA Communications and External Affairs (C&EA) participated in the Beryllium Health and Safety Committee (BHSC) teleconferences. The members are working on a large upcoming symposium to advance beryllium awareness, exposure prevention and health care. The discussion involved drafting the agenda and topics for the event.

**Effluent Management Facility Permit Public Meeting** – MSA supported the DOE Office of River Protection (ORP) in preparation for the Waste Treatment Plant (WTP) Effluent Management Facility Permit Public Meeting. C&EA reviewed and edited advertising, sign-in and fact sheets, discussed logistical needs, technology needs and strategies for collecting public comments with ORP staff.

**Hanford Tours** – In November, MSA coordinated two Hanford tours on behalf of RL: one, a media visit to the Plutonium Finishing Plant, and the second, a Hanford Site tour for the Seattle Federal Bureau of Investigation (FBI). Support included developing and distributing agendas, facilitating visitor badging and ordering transportation. Support to the Seattle FBI visit also included securing facility briefings, and coordinating logistics for the tour.

### ENGINEERING

**Water And Sewer System Design Authority Assessments** – MSA met with the RL facility representative to communicate results of Water and Sewer System Design Authority assessments that were conducted to address legacy issues with permit non-compliances in water and sewer utilities. MSA met with chief engineers for Washington River Protection Solutions, LLC (WRPS) and CH2M Hill Plateau Remediation Company (CHPRC) to discuss and resolve issues relevant to Engineering across the Hanford Site.

**Engineering Evaluation And Cost Analysis** – MSA supported RL in preparation and delivery of a message from the Tri-Party Agreement Agencies. MSA supported RL, the Environmental Protection Agency and the State of Washington, Department of Ecology by drafting a thirty day pre-notice for an upcoming comment period on engineering evaluation and cost analysis for the Reduction-Oxidation Plant complex.



**Acquisition Verification Services (AVS) Activities** – AVS activities for November were as follows:

**QUALITY ASSURANCE AND PERFORMANCE OVERSIGHT ACTIVITIES**

FY 2017	CHPRC Current Month Total	WRPS Current Month Total	Others	Total to date
Re-certifications	4			4
Annual Evaluations	5	4	3	12
Visual Acuity Evaluations		1	1	2

**Acquisition Verification Services (AVS) Activities** – MSA's AVS activities for CHPRC and WRPS for November were as follows:

**Fiscal Month November**

2017	CHPRC Current Month Total	WRPS Current Month Total	Others	Total to date
Source Inspections		8		16
Annual Desk Reviews				0
Supplier Evaluations/Audits	1	4	0	8
First Article Inspection				0

**LOOK AHEAD**

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None to report.

**MAJOR ISSUES**

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None to report.

**SAFETY PERFORMANCE**

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There were no Occupational Safety and Health Administration (OSHA) Recordable injury or First Aid injury cases reported for November.



**BASELINE PERFORMANCE**

Table PO-1. President's Office Cost/Schedule Performance (dollars in millions).

Fund Type	November 2016					Contract-to-Date				
	BCWS	BCWP	ACWP	SV	CV	BCWS	BCWP	ACWP	SV	CV
Site-wide Services	\$0.9	\$0.9	\$0.8	\$0.0	\$0.1	\$71.6	\$71.6	\$60.8	\$0.0	\$10.8
<b>Subtotal</b>	<b>\$0.9</b>	<b>\$0.9</b>	<b>\$0.8</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$71.6</b>	<b>\$71.6</b>	<b>\$60.8</b>	<b>\$0.0</b>	<b>\$10.8</b>

ACWP = Actual Cost of Work Performed.

CV = Cost Variance.

BCWP = Budgeted Cost of Work Performed.

CTD = Contract-to-Date

BCWS = Budgeted Cost of Work Scheduled.

SV = Schedule Variance.

**BASELINE PERFORMANCE VARIANCE**

**Current Month (CM) Cost Variance (CV) (+\$0.1M)** – The favorable CM CV is primarily associated with the MSA Engineering Organization. The approved funding level and Integrated Investment Portfolio (IIP) are significantly less than the contract baseline.

**Contract-to-Date (CTD) CV (+\$10.8M)** – The favorable CTD CV is primarily attributable to MSA Engineering's approved funding, and IIP being divergent from the contract baseline. Through the annual IIP process, the MSA Engineering organization was authorized/funded to perform less work than had been planned in the baseline.

# MISSION SUPPORT ALLIANCE

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## Public Works

Todd Synoground, Vice President

## Monthly Performance Report

### November 2016



*Repairing Deteriorated Equipment*



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## INTRODUCTION

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The Mission Support Alliance, LLC (MSA) Public Works (PW) function provides a myriad of services to support a broad base of customers performing their respective Hanford Site missions. PW provides best-in-class operations and support services within a culture of safety, customer service and fiscal responsibility. PW services include: Electrical Utilities (EU), Water and Sewer Utilities (W&SU), B Reactor, Roads and Grounds, Biological Controls, Real Estate Services (RES), and Compliance & Risk Mitigation/Operations Communications. PW's goal is to provide cost-effective and timely services that are centered on customer needs in support of the Hanford environmental cleanup objectives.

## KEY ACCOMPLISHMENTS

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**300 Area Site Walk** – In November, MSA Long-Term Stewardship (LTS) personnel conducted a site walk of the 300 Area. Staff from U.S. Department of Energy (DOE) Richland Operations Office (RL), MSA, and CH2M HILL Plateau Remediation Company (CHPRC) participated. During the site walk, participants discussed the closure processes, remaining infrastructure, and signage/postings. During the week of December 12, 2016, the draft 300 Area Transition and Turnover Package will be submitted to DOE-RL for comment. The 300 Area is the last of 13 transitions to reassign management of the entire River Corridor from the closure contractor, Washington Closure Hanford, to MSA.



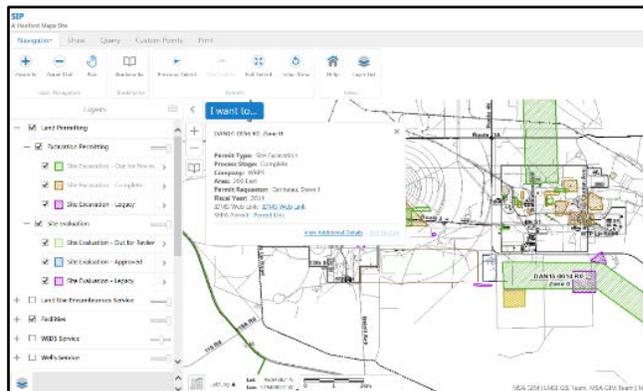
*Legacy signage and radiological postings in the 300 Area*



*Site visitors discuss deferred facilities, including Underground Injection Control Wells*

**Reliability of 451-B Substation** – EU personnel are working on several tasks to enhance reliability at the 451-B Substation, including 13.8kV breaker and cubicle preventive maintenance, installation of advanced technology meters, and installation of a new annunciator alarm panel. Besides lubing and cleaning activities, the work included verification of cubicle heaters which are crucial in preventing moisture buildup that causes arc-damage to the breaker and its arc chutes.

**Stewardship Information Portal (SIP) –** MSA RES launched the SIP in November. The SIP is a Geographic Information System that utilizes relational data associated with geographic locations to display Site facility and land information. The SIP has numerous information layers, as well as popup screens with web links if users want to quickly drill down and seek more detailed data. This new capability is relatively new to Hanford and will save users significant time when researching information.



*Stewardship Information Portal*

**Trailer Disinfection –** In support of cleanup activities in the 200 East (E) tank farms, MSA W&SU was asked to disinfect a decontamination trailer to support continued work in the tank farms. W&SU supervisors, operators, and teamsters worked quickly to disinfect decontamination trailer Mobile Office 2244. On November 9, 2016, a satisfactory sample report was received from the Benton Franklin Health District allowing the trailer to be placed back into service.



*Decontamination trailer to be disinfected*

**Replacing Spool Piece at CSB –** W&SU, along with Maintenance Services, worked to replace a spool piece near the Canister Storage Building (CSB). Due to age and its deteriorating condition, replacement was necessary in order to continue to provide the CSB complex with all potable water for domestic use and backup fire water supply. The new piping had to be custom fabricated by MSA pipefitters and welders. The water main was isolated in order for pipefitters to remove and reinstall the new spool piece.



*Fitters replacing spool piece*



*Old spool piece*



**Right Sizing and Bird Guarding** – In November, EU Lineman right sized a transformer bank at the Central Waste Complex (CWC). CWC no longer needed the lights and service panel because they are only required to maintain the air monitor. The new bank was completely bird guarded with caps, wire, and a new fiberglass cross arm.



*Rightsizing transformer bank*

## LOOK AHEAD

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**Post Land Transfer Support to RL** – On November 1, 2016, MSA RES supported RL in a meeting with the City of Richland and Port of Benton (POB) to discuss the potential for transfer of the railroad along the transferred land route (adjacent to Route 4 South). The POB is engaging in conversations with the NW Seaport Alliance for a pilot project to store rail cars, and RL will look into potential transfer/lease options and future uses. MSA is scheduling a tour with the POB to look at old track in the 100 and 200 areas for potential reuse. MSA is also in the process of assessing the track in preparation of a scheduled shipment in the fall of 2017.

## MAJOR ISSUES

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Nothing to report

## SAFETY PERFORMANCE

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During the month of November, there were no Occupational Safety and Health Administration Recordable injuries or First-Aid cases reported within PW. There was one no injury vehicle accident involving a deer strike. Damage was only to the center section grill of the vehicle.



**BASELINE PERFORMANCE**

**Table PW-1. PW Cost/Schedule Performance (dollars in millions).**

Fund Type	November 2016					Contract-to-Date				
	BCWS	BCWP	ACWP	SV	CV	BCWS	BCWP	ACWP	SV	CV
RL-0040 - Nuc. Fac. D&D - Remainder Hanf	\$0.1	\$0.1	\$0.0	\$0.0	\$0.1	\$6.1	\$6.1	\$6.3	\$0.0	(\$0.2)
RL-0041 - Nuc. Fac. D&D - RC Closure Proj	\$0.1	\$0.2	\$0.4	\$0.1	(\$0.2)	\$18.6	\$18.5	\$17.9	(\$0.1)	\$0.6
RL-0044 - B Reactor	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.0	(\$0.1)
RL-0100 - Richland Comm & Reg Supt	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	\$0.0	(\$0.3)
Site-Wide Services	\$2.1	\$2.1	\$3.6	\$0.0	(\$1.5)	\$257.1	\$257.1	\$302.4	\$0.0	(\$45.3)
<b>Subtotal</b>	<b>\$2.3</b>	<b>\$2.4</b>	<b>\$4.0</b>	<b>\$0.1</b>	<b>(\$1.6)</b>	<b>\$281.8</b>	<b>\$281.7</b>	<b>\$327.0</b>	<b>(\$0.1)</b>	<b>(\$45.3)</b>

ACWP = Actual Cost of Work Performed

BCWP = Budgeted Cost of Work Performed

BCWS = Budgeted Cost of Work Scheduled

CV = Cost Variance

CTD = Contract-to-Date

SV = Schedule Variance

**BASELINE PERFORMANCE VARIANCE**

**Current Month (CM) Schedule Variance (SV) – (+\$0.1M)**

**RL-41 CM SV (+\$0.1M)** – White Bluffs Bank construction is nearly complete but behind schedule. The project earned BCWP during November, but no longer has BCWS.

**CM Cost Variance (CV) (-\$1.6M):**

**RL-40 CM CV (+\$0.1M)** – The positive CV for Pre-Manhattan Tours in November is the result of a point adjustment due to implementation of a BCR adding the FY16 Mod to the contract value.

**RL-41 CM CV (-\$0.2M)** – B-Reactor Oversight, Services, and Tours have higher than planned costs because tours have been extended into October & November.

**SWS CM CV (-\$1.5M)** – Increased staffing levels for maintenance activities were required to keep 3001.04.04 W&SU (-\$0.7M), and 3001.04.03 EU (-\$0.8M) operational; the result is a negative CM CV. These systems have degraded across the site due to age. W&SU and EU are a part of the Enhanced Maintenance Program, and have compliance issues that have increased the cost to the program. Costs associated with system

degradation have caused W&SU and EU to be significantly divergent from the baseline. Additional SWS variances exist in 3001.02.05 Waste Sampling and Characterization Facility Analytical Services (Readiness to Serve) (+\$0.1M); Roads & Grounds (+\$0.1M); LTS (-\$0.2M); and Condition Assessment Surveys (+\$0.1M).

**Contract-to-Date (CTD) SV (-\$0.1M)** is within threshold.

**CTD CV (-\$45.3M)** – Variances exist in RL-40, RL-44, and RL-100 that total (-\$0.6M) but are individually below threshold. Key drivers to the remaining CTD CV in other areas:

**RL-41 CTD CV (+\$0.6M)** – The B Reactor CTD CV results from a labor underrun due to lower than planned labor and subcontract support.

**SWS CTD CV (-\$45.3M)** Variances included:

**3001.04.03 EU** is significantly divergent from the baseline. The CTD CV (-\$22.9M) is primarily due to repairs relating to an aging infrastructure and upgraded staffing requirements. In addition, more material procurements were made due to new requirements that were not included in the baseline. These new requirements included the disposal of Power/Telecommunications lines to the Environmental Restoration Disposal Facility, a trailer mounted load center, bushings to replace the A-9 Transformer (needed for an unplanned outage), spare parts from a vendor who went out of business, an infrared camera, and an analyzer. In addition, the baseline was not adequate for a number of maintenance items that needed to be replaced due to the aging life of the infrastructure on the Hanford site. An Enhanced Maintenance Program has been established to better predict future system failures and Predictive Maintenance is replacing the Preventative Maintenance methodology. Expenditures will remain within approved funding and IIP scope.

**3001.04.04 Water & Sewer Utilities** – W&SU is significantly divergent from the baseline. The CTD (-\$31.9M) is principally due to extensive infrastructure repairs and implementation of the Preventive Maintenance Program. Also, staffing levels are currently higher than the baseline due to the maintenance activities required to maintain the water and sewer distribution system. The system has degraded across the site due to age. W&SU is also part of the Enhanced Maintenance Program, and has compliance issues that have increased the cost to the program. Expenditures will remain within approved funding and IIP scope.

Other significant SWS CTD variances related to being divergent from the baseline are tied to the 3001.02.05 Waste Sampling and Characterization Facility (+\$3.8M); 3001.04.01 Roads & Grounds (+\$2.0M); 3001.04.02 Biological Services (-\$1.0M); 3001.04.10.01 Sanitary Waste Management and Disposal (+\$1.0M); 3001.04.10.02 Laundry Services



(-\$0.7M); 3001.04.10.03 Traffic Management (+\$1.1M); 3001.04.10.04 Site Infrastructure and Logistics Program Management (-\$1.5M); 3001.04.10.06 Public Works Program Planning Management, and Administration (-\$1.0M); 3001.04.14 Land and Facilities Management (+\$5.2M); and 3001.06.04 NEPA Natural Gas Pipeline (+\$0.6M).

# MISSION SUPPORT ALLIANCE

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## Site Services & Interface Management

P.K. Brockman, Vice President

### Monthly Performance Report November 2016



*Refurbished equipment ensuring continued operation*



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## INTRODUCTION

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The Mission Support Alliance, LLC (MSA) and Site Services & Interface Management (SS&IM) function provides numerous services to support a broad base of customers performing their respective Hanford Site missions. SS&IM provides operations, support, and maintenance services within a culture of safety, customer service, and fiscal responsibility. SS&IM services include: Interface Management/Customer Service; Crane & Rigging; Fleet Services; Motor Carrier Services; Maintenance Services; and Projects/Strategic Planning. SS&IM's goal is to provide effective and timely services that are centered on customer needs in support of the Hanford environmental cleanup objectives.

## KEY ACCOMPLISHMENTS

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**Fiscal Year 2017 Annual Forecast of Services Completed** – MSA Interface Management transmitted Contract Deliverable CD0002, *Annual Forecast of Services and Infrastructure for Fiscal Year 2017*, to DOE Richland Operations (RL) on November 22, 2016. The Annual Forecast represents the fiscal year 2017 forecast for usage-based services and major infrastructure systems. The purpose of the Annual Forecast is to align MSA resources to customer requirements and develop service rates that minimize fluctuations throughout the fiscal year.

**Covers for Guzzler Truck Tanks** – In November, the Fleet Services Body Shop fabricated covers for the bag house tanks on the regulated guzzler truck belonging to MSA Motor Carrier Services. The purpose of the covers is to keep moisture out of the tanks, allowing uninterrupted operation of the guzzler.



*Covers fabricated for guzzler tanks*

**Fire Hydrant Repair** – On November 4, 2016, Maintenance Services, with support from Water Utilities and Crane & Rigging, completed repairs to the fire hydrant outside of building 2751E. The hydrant was previously taken out of service when it was damaged during annual testing. The line was flushed/sanitized and bacteria tests were analyzed before the area could be backfilled and the hydrant placed back into operation.



*2751E fire hydrant repair*

**283W Removal of Asbestos Boards** – On November 10, 2016, Maintenance Services Water Utilities, Motor Carrier Services, and Crane & Rigging worked to remove asbestos boards at 283W. The asbestos boards were surveyed by Health Physics Technicians, wrapped with two layers of six-millimeter polyethylene, and labeled as asbestos waste. The pipe frames were then cut even with the floor. Riggers hoisted the boards from the second floor into the wooden boxes, and the boxes were labeled for waste disposal.



*Asbestos boards removed and wrapped for disposal*

**Caterpillar Bulldozers Refurbished** – Fleet Services completed a top to bottom refurbishment of two large Caterpillar bulldozers for Motor Carrier Services. These bulldozers have been utilized in multiple functions over the years and are now used for Wildland Fire support and potentially waste retrieval for CH2M Hill Plateau Remediation Company (CHPRC). The refurbishment saved the U.S. Department of Energy (DOE) from purchasing replacement units at ~\$800,000 each, equating to a cost avoidance exceeding \$1,000,000.

**Air Monitor Brackets for Plutonium Finishing Plant** – MSA Sheet metal Workers, with welder support, fabricated Air Monitor Brackets for the Plutonium Finishing Plant (PFP). This was a high priority request from PFP to support air monitoring activities that will be performed during demolition activities.

**MSA Support to Plutonium Finishing Plant Demolition** – MSA Interface Management met with CHPRC's PFP Demolition Manager on November 15, 2016, to discuss ongoing support from MSA's Teamsters, Crane & Rigging, and Mechanical Services. MSA



continues to support PFP's ongoing demolition schedule, an effort that requires flexibility in order to meet unexpected demolition delays due to adverse weather conditions.

**MSA Service Catalog Enhancements** – MSA and CHPRC employees whose jobs require wearing arc-rated clothing can now order new or replacement arc-rated daily wear and winter wear through the MSA Service Catalog. A new service order form was added to the MSA Service Catalog on November 9, 2016. Additionally, information regarding environmental screening and a link to the Environmental Activity Screening (EAS) System was added to the MSA Service Catalog.

## **LOOK AHEAD**

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None to report.

## **MAJOR ISSUES**

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None to report.

## **SAFETY PERFORMANCE**

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During the month of November, there were no Occupational Safety and Health Administration (OSHA) Recordable injuries reported within SS&IM. There were four minor first-aid cases reported: an employee received an insect bite on the elbow; an employee struck an elbow on a door handle; another employee slipped and scraped a shin; and an employee felt a knee pop while stepping onto a truck. In addition, there were two non-injury vehicle accidents reported; one when a truck's hitch struck a parked vehicle, and a second when a truck's bumper struck the end of a barrier. Damage in both instances was minor.



## BASELINE PERFORMANCE

Table SS&IM-1. Site Services & Interface Management Cost/Schedule Performance (dollars in millions).

Fund Type	November 2016					Contract-to-Date				
	BCWS	BCWP	ACWP	SV	CV	BCWS	BCWP	ACWP	SV	CV
ORP-0014 - Rad Lqd Tk Wst Stab & Disp Ops	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$14.5	\$14.5	\$12.8	\$0.01	\$1.7
RL-0020 - Safeguards & Security	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1.3	\$1.3	\$1.6	\$0.0	(\$0.3)
RL-0040 - Nuc Fac D&D - Remainder Hanford	\$1.2	\$1.3	\$1.0	\$0.1	\$0.3	\$57.5	\$57.0	\$59.4	(\$0.5)	(\$2.4)
Site-wide Services	\$0.2	\$0.2	\$0.2	\$0.0	\$0.0	\$40.0	\$40.0	\$44.0	\$0.0	(\$4.0)
<b>Subtotal</b>	<b>\$1.4</b>	<b>\$1.5</b>	<b>\$1.2</b>	<b>\$0.1</b>	<b>\$0.3</b>	<b>\$113.3</b>	<b>\$112.8</b>	<b>\$117.8</b>	<b>(\$0.5)</b>	<b>(\$5.0)</b>

ACWP = Actual Cost of Work Performed  
 BCWP = Budgeted Cost of Work Performed  
 BCWS = Budgeted Cost of Work Scheduled

CV = Cost Variance  
 CTD = Contract-to-Date  
 SV = Schedule Variance

**Note:** This cost and performance data reflects Site-Wide Services scope for SS&IM reported under the Performance Measurement Baseline (PMB). A large portion of the organization's monthly work scope and listed accomplishments are handled under the Non-PMB via the Usage Based Services (UBS) and Direct Labor Adder (DLA) funding sources. Although the work scope and accomplishments listed are completed with the SS&IM labor force and management team, the final costs of these UBS and DLA pools reside with the end customer.

## BASELINE PERFORMANCE VARIANCE

### Current Month (CM) Schedule Variance (SV) (\$0.0M)

**ORP-0014 CM SV (\$0.0M)** – The SV for November is within threshold.

**RL-0020 CM SV (\$0.0M)** – The SV for November is within threshold.

**RL-0040 CM SV (\$0.1M)** – CM schedule variances exist in several RL-40 Reliability Projects which are individually below threshold.

**Site-wide Services (SWS) CM SV (\$0.0M)** – The SWS SV for November is within threshold.



## Contract-to-Date (CTD) SV (-\$0.5M)

**ORP-0014 CTD SV (\$0.0M)** – The CTD SV is within threshold.

**RL-0020 CTD SV (\$0.0M)** – The CTD SV is within threshold.

**RL-0040 CTD SV (-\$0.5M)** – CTD schedule variances exist in several RL-40 Reliability Projects which are individually below threshold.

**SWS CTD SV (\$0.0M)** – The SV is within threshold.

## CM Cost Variance (CV) (+\$0.3M)

**ORP-0014 CM CV (\$0.0M)** – The CV is within threshold.

**RL-0020 CM CV (\$0.0M)** – The CV is within threshold.

**RL-0040 CM CV (+\$0.3M)** – Project L-840, 24in EW Line Replacement 2901Y - 200W CM CV is due to a combination of timing of contractor payments and unplanned additional labor costs during construction punchlist completion. (-\$0.1M); Project L-830, Filter Plant Filter Control System Upgrade CM CV is due to is due to performance of work that was not previously completed, electrical installations for Filters 3 and 4. (-\$0.1M); Project L-894, Raw Water Cross Connection Isolation 200E/W CM CV is due to the study report being completed by the engineering subcontractor is taking less resources than originally planned. (+\$0.1M); Project L-789, Prioritize T&D Sys Wood PP Test & Replace CM CV is due to less activities performed than originally planned. (+\$0.1M); RP Studies, Estimates, & Planning CM CV is due to timephasing of subcontract studies. (+\$0.1M); and Project L-761, *Phase 2a Procure, Install, & Closeout*, CM CV is because BCWP set up as level of effort and not incurring actual cost, (behind on procurement and setup of construction housing complex). The current month positive cost variance does not reflect actual performance. (+\$0.1M) Variances totally (+\$0.1M) exist in other RL-40 Reliability Projects which are individually below threshold.

**Site-wide Services (SWS) CM CV (\$0.0M)** – The CM CV for November is within threshold.

## CTD CV (-\$5.0M)

**ORP-0014 CTD CV (+\$1.7M)** – The Project L-858, *200E 13.8kV ED Dsgn & Bse Svc Ld Reconfig*, CTD CV is due to reduced cost as a result of early completion of preliminary conceptual design activities. High quality conceptual design allowed for an abbreviated version of Definitive & Final Design allowing for early award of the Engineering Design Contract. Ecological and cultural reviews took much less effort than planned, because the construction is in a previously disturbed area, and qualified



under the Tank Farms Environmental Impact Statement. In addition, the construction subcontractor's bid came back significantly lower than planned (+\$1.2M). Variances for other ORP-14 projects total (+\$0.5M), and are individually below threshold.

**RL-0020 CTD CV (-\$0.3M)** – The CTD CV is within threshold.

**RL-0040 CTD CV (-\$2.4M)** – The CTD CV is primarily due to several prior year Infrastructure Reliability Projects: Project L-691, *Construct Sewer Lagoon in 200W* (-\$3.0M); Project L-506, *Upgrade RTUs & SLAN – CE* (-\$1.4M); Project L-683, *251W Facility Mods for Dispatch Center* (-\$1.5M); Reliability Project Spares Inventory Change (-\$2.3M); Project ET-51, *HLAN Network Upgrade - Ph. 2* (-\$1.1M); Project L-713, *Records Storage Facility* (-\$2.2M); Project ET60, *Enterprise Voiceover Internet Protocol (VoIP) Solution, Implementation* (-\$2.5M); and EU System CENRTC (-\$1.0M). These negative prior year CTD CV amounts are offset by the following current project positive CVs: 1) Project L-525, *24in Line Replacement from 2901Y to 200E*, is due to the award of the construction subcontract for significantly less than the initial estimate (+\$1.6M); and 2) Project L-840, *24in Line Replacement from 2901Y to 200W* due to modest cost savings from performing site clearing work for less than planned, and the fixed price construction contract awarded for significantly less than the baseline estimate. The significant construction cost savings is attributable to the contractor's expertise in this type of construction and significantly less difficult site conditions currently being encountered than was assumed when preparing the initial cost estimate (+\$1.5M). In addition, are the following prior year project positive CVs: Project L-449, *Mortar Line 12-in Water Line – Baltimore* (+\$0.9M); Project L-399, *T-Plant Potable & Raw Water Line* (+\$1.5M); Project L-677, *200E/W Raw Water Modifications* (+\$0.8M); Project L-311, *200W Raw Water Reservoir Refurbish* (+\$4.0M); Project L-742, *Rt3/Rt4S Turn Lane & Rt. 4S Turn-Outs* (+\$0.5M); Project L-753, *Maintenance Shelters for Crane & Rigging* (+\$1.1M); Project L-712, *CCCF and Communications Upgrades* (+\$0.7M); and HFD CENRTC (+\$2.8M); Variances for other RL-40 projects are individually below threshold.

**SWS CTD CV (-\$4.0M)** – The CTD CV is due to the deltas between the contract baseline and the approved and funded integrated infrastructure planning of items for MSA FY 2013 – FY 2016 work scope. These items include increased support required for Interface Management including the Service Catalog scope and additional support from others (e.g., Safety Staff, Environmental Personnel, etc.) in the Project Management Account.

**MISSION SUPPORT ALLIANCE**

"WE WILL MEASURE OUR SUCCESS BY OUR CUSTOMERS' SUCCESS"



# Training & Conduct of Operations

Steve Metzger, Vice President

## Monthly Performance Report

## November 2016



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## INTRODUCTION

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The Mission Support Alliance, LLC (MSA) Training and Conduct of Operations (T&CO) organization is responsible for the management of MSA training activities, programmatic implementation of the Conduct of Operations (CONOPS) principles, and management of the Volpentest Hazardous Materials Management and Emergency Response (HAMMER) Federal Training Center.

The MSA Central Training function is responsible for implementing a training management system to meet the technical, organizational, and professional development training requirements of personnel. This function also meets training related regulations and directives specified in the Mission Support Contract with the U.S. Department of Energy (DOE).

CONOPS evaluates MSA organization processes and procedures for appropriate implementation of DOE Order 422.1, *CONOPS Elements and Requirements*. This function also assesses and verifies implementation of CONOPS at MSA-managed projects and facilities.

The MSA Work Management program incorporates the principles of Integrated Safety Management and Environmental Management System at the activity level through the development and use of technical Work Documents (WDs).

HAMMER and Hanford Training provide facilities, training curriculum and training delivery services to Federal, contractor, and sub-contractor employees in support of the Hanford Site, Pacific Northwest National Laboratory and other DOE missions. The organization provides efficient, performance-based training programs and maintains HAMMER in a “ready-to-serve” capacity as the primary training facility for the Hanford Site.

Additionally, HAMMER and Hanford Training provide national and regional assets and services to other local, state and national needs in areas such as disaster recovery, emergency response, transportation, fire protection, law enforcement and military readiness.

## KEY ACCOMPLISHMENTS

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**HAMMER Holds Self-Contained Breathing Apparatus (SCBA) Trials** — Beginning November 21, 2016, HAMMER supported a two-week testing and evaluation of four new, self-contained breathing apparatus' models for potential future field use in the WRPS tank farms. Thirty-two SCBA users and issuers are attending the trials representing the Hanford Atomic Metal Trades Council, the Central Washington Building Trades, along with personnel from WRPS, MSA, and CH2M Hill Plateau Remediation Company (CHPRC).



*Discussion of SCBA units.*

**HAMMER Holds Instructor Development Program Day** — On November 14, 2016, an Instructor Development Program day was held at HAMMER for nearly 80 worker-trainers and Subject Matter Expert (SME) instructors. The majority of the day was organized into workshops relating to classroom sensitivity, positive psychology, digital narrative and storytelling, and authentic leadership. Many favorable comments and positive feedback was received from the event.

**Training for Bonneville Power Administration** — On November 14-18, 2016, Division of Technical Information (DTI) Training-HAMMER staff provided a 30-hour safety and health training course for 19 Bonneville Power Administration (BPA) personnel. BPA staff provided feedback noting that they'd immediately implemented the training information and lessons learned from training into their daily practices. DTI-HAMMER staff have arranged a follow-up meeting with the BPA training manager to coordinate more future training opportunities.

**HAMMER Provides Emergency Support Function #12 Initial Training** — On November 1-3, 2016, HAMMER staff conducted initial Emergency Support Function #12 (ESF #12) Training at HAMMER. The three-day training consisted of two days of classroom instruction and a full day of simulated hurricane response exercise, in which HAMMER's Field Exercise Building was utilized. On November 15-17, 2016, HAMMER staff traveled to Washington, D.C. to conduct another ESF#12 training course. The class was the 5<sup>th</sup> training course provided this year and trained an additional 22 members of the ESF#12 team.

**HAMMER Staff Deliver DTI Mobile Training for Electrical Workers in Idaho** — On November 27, through December 1, 2016, HAMMER staff traveled to the Idaho Cleanup Project (ICP) to provide required training for electrical workers. The courses provided the latest National Electrical Code updates of the National Fire Protection Association (NFPA) 70 and the latest Electrical Safety requirements of NFPA 70E. Additionally, two



instructors from ICP began certification under the DOE Training Institute (DTI) program, which will allow for the electrical workers to teach DTI courses at their site in the future.

**Construction Worker Safety Training Program Meeting Held** — On November 30, 2016, HAMMER held the Construction Worker Safety Training Program subcommittee meeting, which included building trades representatives, Hanford training managers, Hanford Atomic Metal Trades Council and building trades training liaison, representatives from RL, ORP, and HAMMER staff. The meeting covered several topics including Equivalency and Reciprocity reviews, the Worker-Trainer Instructor Development program, a training look-ahead, and the Construction Safety Representative report. Key outcomes from the meeting included standardizing the process for Construction Field Work Supervisor Training, standardizing construction worker orientation and flow down of requirements, and developing site wide craft-specific hazard analysis.

**Senior Leidos Executives Tour of HAMMER** — On November 30, 2016, HAMMER provided a tour for senior Leidos Company executives. The tour provided an overview of HAMMER's partnerships, safety culture, worker-trainer program, and included lockout/tagout and respiratory protection demonstrations.

**Block Training** — MSA Central Training Coordinators recently completed block training for eight new ironworkers and one crane operator. Block training requires the Training Coordinators to work with Human Resources, HPMC, Dosimetry, Crane and Rigging's Director, and HAMMER for a successful program.

## LOOK AHEAD

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**Personal Protective Equipment (PPE) Strategy Mock-up for 324 Hot Cell Airlock Entry** — HAMMER is supporting CHPRC to develop a new strategy for donning and doffing Level B suits and respiratory protection in preparation for the entry into 324 hot cell airlock. Mock-up activities will be developed to train Nuclear Chemical Operators (NCOs) to remove legacy waste from the airlock. HAMMER is mobilizing equipment that is currently at the Hanford Fire Department for annual recertification. CHPRC NCOs will attend HAMMER Respiratory Protection class for certification prior to donning the level B suits during this training activity. Mock-up training activities of this nature prove to be of high value in developing safe and efficient strategies and work techniques for teams preparing for high hazard cleanup projects. HAMMER and CHPRC teamed up previously on the Plutonium Finishing Plant's recently completed "McClusky" room clean up. The mock-up activity for that project proved to be



extremely useful preparing the work crews on the use of new PPE and respiratory protection never previously used on the Hanford Site.

**MSA Central Training Report** – MSA Central Training is in the process of taking over several programs currently conducted by HAMMER. Work Management, Job Hazard Analyses (JHA), and the Field Work Supervisor (FWS) programs will migrate to the central training organization over the next few months. Revisions to the Work Management and FWS courses are being finalized and submitted for approvals. A pilot session has been scheduled for mid-December. The pilot course will be presented by current HAMMER trainers, and will be attended by trainers from MSA Central Training, work management SMEs, and a select group of MSA students from the Hanford site. MSA Central Training Instructors are shadowing the Planners, Validation Authority and Schedules function to observe the processes of Work Management in preparation of presenting the training in the near future.

**FY 2017 Milestones** – MSA’s Maintenance Management will be revising milestones for FY 2017, following input and concurrence with DOE. Formality of Operations mentors will be conducting an effectiveness review of Electrical Utilities CONOPS implementation during the first quarter of FY 2017.

## MAJOR ISSUES

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Nothing to report.

## SAFETY PERFORMANCE

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There were no Occupational Safety and Health Administration (OSHA) injury cases reported by T&CO during November.



## BASELINE PERFORMANCE

Table T&CO-1. T&CO Cost/Schedule Performance (dollars in millions).

Fund Type	November 2016					Contract to Date				
	BCWS	BCWP	ACWP	SV	CV	BCWS	BCWP	ACWP	SV	CV
RL-0040 - Nuc. Fac. D&D - Remainder Hanford	\$0.2	\$0.2	\$0.5	\$0.0	(\$0.3)	\$44.2	\$44.2	\$52.1	\$0.0	(\$7.9)
Site-Wide Services	\$0.1	\$0.1	\$0.4	\$0.0	(\$0.3)	\$9.3	\$9.3	\$12.7	\$0.0	(\$3.4)
<b>Subtotal</b>	<b>\$0.3</b>	<b>\$0.3</b>	<b>\$0.9</b>	<b>\$0.0</b>	<b>(\$0.6)</b>	<b>\$53.5</b>	<b>\$53.5</b>	<b>\$64.8</b>	<b>\$0.0</b>	<b>(\$11.3)</b>

ACWP = Actual Cost of Work Performed

BCWP = Budgeted Cost of Work Performed

BCWS = Budgeted Cost of Work Scheduled

CV = Cost Variance

CTD = Contract-to-Date

SV = Schedule Variance

## BASELINE PERFORMANCE VARIANCE

**RL-40 – Current Month (CM) Cost Variance (CV) (-\$0.3M)** – The unfavorable CM CV is similar to the detail listed in the CTD CV explanation. The assumption that less DOE Office of Environmental Management (EM) funding would be required because HAMMER could self-fund itself by performing enough services for non-Hanford entities has not occurred. As a result, the monthly EM budget will remain lower than the EM funds authorized. Because of this divergent situation, a negative cost variance occurs monthly. Services delivered at HAMMER will not be adversely affected because the services are executed consistent with the approved Integrated Investment Portfolio (IIP) scope.

**Contract-to-Date (CTD) CV (-\$7.9M)** – The unfavorable CTD CV is largely due to the assumption that less DOE Office of EM funding would be required because HAMMER could self-fund itself by performing enough services for non-Hanford entities. This assumption has not occurred. As a result of this inaccurate assumption, the EM budget will remain lower than the EM funds authorized. Because of this divergent situation, the contract-to-date cost variance will continue to increase. Services delivered at HAMMER will not be adversely affected because the services are executed consistent with the approved IIP scope. No other potential contributing performance issues are currently identified.

**Site Wide Services (SWS) – Current Month CV (-\$0.3M)** – Current CV is due to the approved funding and IIP scope being divergent from the baseline in the Work Management Accounts within T&CO. The variance will continue and expenditures will be in accordance with approved funding and IIP scope.



**Contract-to-Date CV (-\$3.4M)** – Contract-to-Date CV is due to the approved funding and IIP scope being divergent from the baseline in the Work Management Accounts within T&CO. The variance will continue and expenditures will be in accordance with approved funding and IIP scope.