Joint Strike Fighter – Lightning II
Monthly Assessment Report

Prepared for the Joint Strike Fighter Program Office
Prepared by DCMA Lockheed Martin Fort Worth

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Table of Contents

JSF Executive Summary 3
Report Scope 5
JSF Outcomes and Performance Commitments 5
Improve Build-to-Package (BTP) Quality 7
Successful Component Build 8
Non-Conformance Reduction 11
Safety of Flight (SoF) 12
Effective Management of Formal Risks 12
Successful System Checkout Procedures (SCOPs) 15
Improved Software Productivity 16
Predictive Analysis of SDD Cost, Schedule and Performance Variance 17
Delegated Field Assessments 19
Earned Value 20
Appendix A – EV Assessment Criteria 20

JSF Executive Summary

AA-1 has completed 25 flights, accumulating ~27.2 flight test hours as of 10 Jan 08. Flight clearance for the F135 engine has been extended to allow flight operation of
Planned flying for the third week of January was cancelled due to weather.

Production Status (As of 13 Jan 08)	
Forward Fuselage	8 – Assembly 3 – Mate/Final
Center Fuselage	14 – Assembly 3 – Mate/Final
Aft Fuselage	7 – Assembly 3 – Mate/Final
Wing	9 – Assembly 3 – Mate/Final
Fuselage Structure Mate (EMAS)	3 (BF-2, BG-1 & BF-3)
Field Ops/Roll Out/Fuel Barn	1 (BF-1)

Efforts continue in the refinement of the SDD Master Schedule (MS6.1). Adjustments and additions to support areas such as part delivery forecasts, assembly planning, production requirements, etc. will push aircraft completion, first flight and ferry dates to the right further than the originally planned MS6 projections. IMS baseline complete efforts are not expected until next month according to PAN 07-D-0019 S1. Revisions and supplements to the Master Schedule continue.

The JSF Production Operations current budget is insufficient to complete SDD – DCMA predicts an additional $498M cost growth over the current estimate at completion (EAC). DCMA rationale for this cost growth is based on Program cost performance short of required performance needed to meet baseline EAC. Additional significant threats, pressures and future changes are included in the DCMA IEAC, such as: partially unfunded requirements for Major and Minor Change Curves ,rchangeability & Replaceability risk Sustaining Change Challenge-LRIP :d Tooling ETC Depletion due to unfunded SOW CMA Palmdale.

egative cost and schedule performance to date, is beginning to show signs of steadying out. JSF Build (WBS 3100) performance to date has been trending negatively over the last seven-to-nine months, with WBS 3140 Wing build remaining on the critical path. Overall Wing and Mate and Final Assembly are showing signs of improvement, while Forward Fuselage continues to experience negative trends. According to Dec 07 Format 5 explanations, parts and planning shortages for AF-3 and AJ-1 are creating significant negative schedule impact for the Forward Fuselage. Overall, critical part shortages, complex work, engineering change traffic, QARs, late planning, flight test instrumentation, etc. continue to impact the mechanics ability to efficiently earn budget. As major component schedules continue to push to the right, Mate and Final Assembly are impacted.

BF-1 – As of 6 Jan 08, 2BF-1 % completes for Wing, Forward and Mate (thru final assembly, not including rollout) are 97%, 96% and 58% respectively (SOP 11/12/07). In late December, 2BF-1 rolled out to the fuel barn in preparation for the flight line. DCMA estimates out-of-station work to be approximately 3,259 hours for the Wing, 535 hours for the Forward, and 34,229 hours for Mate for a total of 38,023 hours. The significant amount of tasks moving out-of-station presents a significant challenge to complete within existing cost and schedule requirements.

As of mid-December, a total of 94 SCOPs remain to be completed for BF-1 prior to first flight scheduled for May 08. Data shows that 33 SCOP tests have been completed – equating to 26% of the total planned testing is per Master Schedule 5 (MS5). Current estimate is that on-time starts for SCOPs are holding at 3 month behind schedule.

Report Scope

The Joint Strike Fighter – Lighting II Monthly Assessment Report (MAR) is intended to meet customer outcomes identified in the Memorandum of Agreement (MOA) with the JSF Program Office (JSFPO). The objective is for the contractor to deliver products on schedule.

The customer outcomes as described in the overarching MOA between DCMA and the JSF Program Office are as follows:

A. Effective Design Processes
B. Effective Manufacturing Processes
C. Effective Quality Processes
D. Effective Acceptance Processes
E. Effective Improvement Processes
F. Supply Chain Management

The JSF MAR is intended to highlight issues by exception in areas where DCMA indicates risk, and is not intended to duplicate program information readily available. This report has an abbreviated format that assumes the reader has access to past JSF MARs.

JSF Outcomes and Performance Commitments

Outcomes, performance commitments, and the associated ratings are shown below. Interdisciplinary teaming between Business and Technical Product Assurance (PA) personnel is used to ensure customer outcomes are ascertained, risks to outcomes are identified and assessed.

DCMA Outcome	Performance Commitment	Rating Criteria	Rating
Improve Build-to-Package (BTP) Quality	18% of BTPs approved (no error) on first review	<17% = Red Up to but not including 18% = Yellow 18% or > = Green	
Successful Component Build	<10% variance of planned builds vs. actual schedule	> -15% = Red -10% to -15% = Yellow < -10% = Green	
Non-Conformance reduction	10% reduction in MRB discrepancies per year	>10% Above Goal = Red Within 10% of Goal = Yellow < Goal = Green	
Safety of Flight (SoF)	First pass rate >75% for acceptance of SoF items	<69% = Red 70-75% = Yellow >76% = Green	
Effective Management of Formal Risks	Risk mitigation activities and waterfalls do not exceed 60 days off track	<90% = Red 90% to 99% = Yellow 100% = Green	
Successful System Checkout Procedures (SCOPs)	Scheduled completion is greater than 90%	<80% = Red ≤ 89% to ≥ 80% = Yellow ≥ 90% = Green	

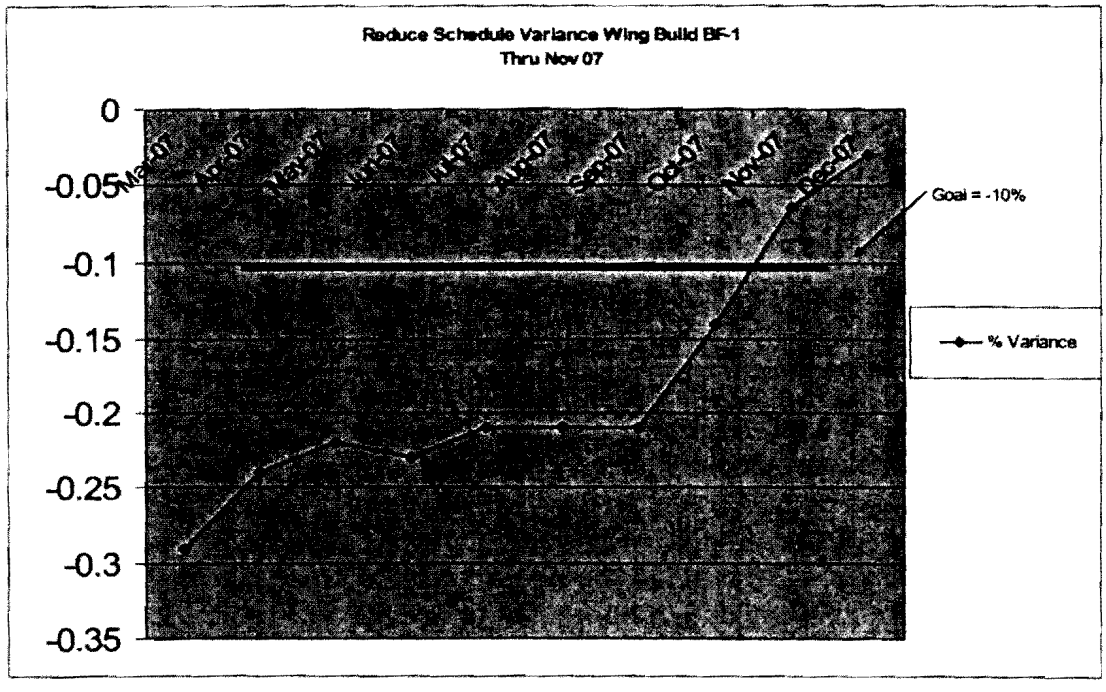
Improved Software Productivity	Block 0.5 Software Productivity Cost Performance Variance (SPCPV) for WBS 1420 Airborne Software is improved at least 30% from Block 0.1 SPCPV	Block 0.5 SPCPV improved <10% of Block 0.1= Red Block 0.5 SPCPV improved at least 10% but <30% of Block 0.1 SPCPV = Yellow Block 0.5 SPCPV improved at least 30% from Block 0.1 SPCPV = Green	
Predictive analysis of SDD cost, schedule and performance variance	Resource requirements are aligned in support of funding and budget allocations(s) Resource requirements are aligned in support of funding and budget allocations(s), IEAC data and projections predict actual performance within 10% of actuals	>10% Variance = Red 5% to 10% Variance = Yellow <5% Variance = Green	Y
Delegated field assessments of supplier design, manufacturing, quality and improvement effectiveness	Each delegated supplier has quality ratings >96%	<87% = Red 87% to 95% = Yellow ≥ 96% = Green	Y
Successful completion of assist audits	Process contractor / PCO requests for domestic / international assist audits within 2 business days 85% of the time	<75% = Red 75% to 84% = Yellow >84% = Green	
Successful contract closeouts	Accomplish 94% contract closeout action within FAR mandated timeframes	<85% = Red 85% to 93% = Yellow >93% = Green	
Ensure "At Risk" funds, likely to require replacement, do not cancel	90% of canceling funds de-obligated / billed	<80% = Red 80% to 89% = Yellow >89% = Green	

Successful Component Build

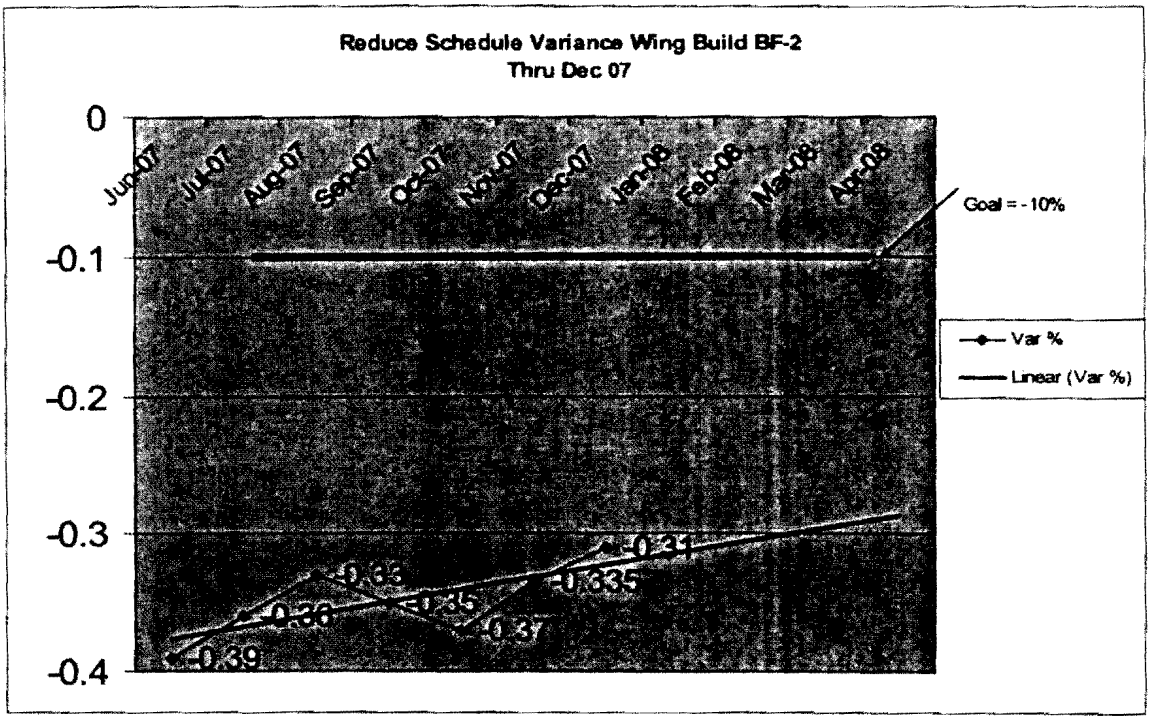
Performance Commitment is rated Green this period with a current BF-1 Wing touch labor variance to schedule of -3%.

BF-1 Wing build has approximately 3,259 hours of touch labor left to earn. Planned build schedule verses actual schedule earned performance has improved to a -3% variance, up from -6.4% last month. All scheduled factory work that was not completed has moved "out-of-station" with the aircraft. A detailed list of the "out-of-station" work was not available in time to be included in this report.

BF-1 Wing schedule variance percent (Planned vs. Actual Schedule) has improved to only a -3% variance to actual Schedule (SOP 11/12/07).



For the month of December, BF-1 and BF-2 Wing performance were tracked. Next month it is anticipated that BF-1 Wing tracking will discontinue. Below is the current performance for BF-2, currently -31%.



Track to Completion

A/C	Component	% Scheduled	% Complete	Roll Out	DCMA Comments
BF-1	Fwd Wing Center Aft VT HT Mate		96% 97% 100% 100% 100% 100% 58%	12/18/07	LTN parts and planning continue to plague Fwd/Wing. Wing has improved to its recovery plan, approx labor hrs remain to complet a out of station work moving to the flight line at approximately Major concern for DCMA is the integration of the out of station Mate work with the existing flight line tasks.
AF-1	Fwd Wing Center Aft VT HT Mate	78% 57% 99% 56% 40% 4% 3/25/08	74% 48% 93% 84% 43% 29% -	10/23/08	Overall: Schedule positions have all improved. Fwd/Wing delayed starts due to late planning and parts.

CF-1	Fwd Wing Center Aft VT HT Mate	12/19/07 01/07/08 43.8% 02/11/08 01/07/08 01/28/08 08/28/08	3.0% 1.0% 32% .1% - - -	02/26/09	Late parts/hardware (bulkhead delivery slip), late planning, jig/tooling availability, EBOM/MBOM mismatch issues are all challenging Wing/Fwd start dates (12-2-07 MPR).

% Scheduled / % Completed data as of 1/7/08 "JSF Production Scorecard" and Weekly Status spreadsheets provided by LM. Center information comes from DCMA Palmdale F-35 Weekly/Monthly Reports Dec 07/Jan 08. Wing Cost efficiency is (Earned Budget)/Actuals, all values are touch labor hours.

Additional relief of first flight dates is being seen as a result of pending MS6.1 changes which will allow dates to slip to the right. While BF-1's first flight will remain targeted for 23 May 08 (MS5), most other aircraft are projected to have aircraft completion, first flight and ferry dates push to the right further than initial MS6 projections.

The DCMA performance commitment metric for BF-1 first flight targets a 50% improvement in achieving first flight as compared to AA-1, and incorporates a 15% reduction in negative float beginning 12 months prior to first flight date. Target goal for all metrics is 0 Total Float by first flight date (month). The target tolerance was adjusted this month to 20%. Metrics will be adjusted accordingly after MS6.1 is finalized.

Metrics for remaining key aircraft:

- AF-1 targets a 50% improvement with a 15% reduction / month
- BF-4 targets a 25% improvement with a 20% reduction / month
- CF-1 targets a 35% improvement with a 20% reduction / month

Non-Conformance Reduction

Forward Fuselage Assembly – This process continues to be rated moderate because of program immaturity and processes not being stabilized. Based on data provided by the contractor, from 13 May 07 to end of year, the top 10 defect drivers for the Forward section assembly were:

- 1) Code (E/D to EOP)
- 2) Code (Code to be determined)
- 3) Code (General Identification Problem)
- 4) Code (Hardware Installed Incorrectly)
- 5) Code (Hole size error)
- 6) Code (General Damaged)
- 7) Code (Hardware Mislocated)
- 8) Code (Fastener Installed Incorrectly)
- 9) Code (Hardware Fouling)
- 10) Code (General Tool Marks)

Wing Assembly – This process also continues to be rated moderate. Based on data provided by the contractor, from 13 May 07 to end of year, the top 10 defect drivers for the Wing assembly were:

- 1) Code (Hole prep/fast hole size)
- 2) Code Hole prep/fast hole loc./ED)
- 3) Code General Damaged)
- 4) Code (Code TBD)
- 5) Code Hole prep/fast countersink)
- 6) Code Hardware Mislocated)
- 7) Code General Tool Marks)
- 8) Code Hole prep/fast Install)
- 9) Code Assembly/mate mismatch)
- 10) Code (Hardware Incorrect)

Mate Assembly – Moderate risk, based on data provided by the contractor, from 13 May 07 to end of year, the top 10 defect drivers for the Mate area assembly were:

- 1) Code (Hole Prep/Fastener/Hole Size)
- 2) Code (Code to be determined)
- 3) Code (Bonding/Composites damaged)
- 4) Code (Hardware Inst. Incorrectly)
- 5) Code Assembly/Mate Mismatch)
- 6) Code General Damaged)
- 7) Code Assembly/Mate Gap)
- 8) Code Hole Prep/Fastener hole location/ED)
- 9) Code (Hardware mislocated)
- 10) Code (Chem/Paint Appl-adh/peeling)

DCMA will continue to work with the contractor to ensure effective actions are undertaken to address the top issues for each process.

Continuing concern area: FOD / Tool Control. As noted in the Safety of Flight portion of this report, a Level II CAR was issued for deficiencies discovered by DCMA QA this month.

Safety of Flight (SoF)

Currently, SoF first pass yield is 88.5% (100% on second pass). Progression towards incorporating the DCMA Safety of Flight requirements with LMFW QSPA continues.

Processes Assessed –
AA-1

- 14 SOF Inspections Accomplished
- S145 Preflight (4)
- S146 Debrief (4)
- S140 BOI IPP Bay after installation
- S143 Engine installation Break of Inspection (BOI) (4) for engine borescope after each flight
- Post ESG installation inspection BOI S143

BF-1
A total of sixteen (SOFI) were accomplished on BF-1

- S107 Fuel Cell closures – 10 inspections, one failure
- S128 Lt Rudder EHA
- S129 Rt Rudder EHA
- S131 Rt Horizontal EHA
- S130 Lt Horizontal EHA
- S156 Roll Post Bay Lt & Rt

Effective Management of Formal Risks

Program Level Risk 49 Air System Security Development Issue (1) Autonomic Logistic System (ALIS). There was a design change for the Ground Data Receptacle (GDR) delayed waiver security penetration submittal. The JPO is aware of this issue and LM is awaiting receipt of Operational data Classification from program office.

Mission Systems Technical Risk

14332.5 EOTS

There is one risk item rated Red in ARM: Classified CATB Data. Two risk items are rated Yellow with risk mitigation plans in ARM:
Eight other risk items in ARM listed as watch items.

Predictive analysis indicates that for the next three months the technical risk outlook is Medium (Yellow). Contributing to this rating is the fact that risk mitigation plans with viable paths forward and effective corrective actions are being worked for several problems:

These problems may impact system performance and the Estimate at Completion. The major problems impacting EOTS developmental efforts are summarized in the following table:

Problems:	Causes/Issues:	Action Status:
Inadequate Contract Budget Base (CBB) Budget at Completion (BAC)	Additional budget of $43.1M is needed to finish the SDD phase in unfunded contract requirements.	Submit proposals and request additional budgets with funds to achieve the "Most Likely" EAC.
CATB classified flight test data collection (Active Risk Manager-ARM risk is scored red).	EOTS data collection turn around time will be delayed significantly. No approved method to declassify the EOTS data on CATB for Block 1.0 and 2.0 flight tests.	LMMFC is awaiting a decision to declassify the data collected from the CATB flights or approved funding for this activity.
EOTS Weight estimated and measured TPM are scored Yellow	The measured weight exceeds the required weight by 5.96%.	Required weight is 181bs. or less; measured weight is 191.78 lbs.

1433 EO DAS

Technical Performance is rated Moderate, with five items currently on the risk log. All items have risk mitigation plans in place – one of the items is on hold and the remaining risk items are all on-track.

Deliverv Schedule – Supplier Hardware/Software Deliverables

The issue remains a problem. The system was shown to be unable to meet cool down requirements, but eels that they will be able to do so after redesign. In the near term, this is affecting deliveries. Qualification unit #3 wasn't able to be delivered and this may continue for some time. is attempting to work around the problem and reschedule/replan the effort.

1436 EW/ CM

Schedule risk is Red due to late delivery of Band 3/4 apertures for BF-4, AF-3, and CATB. Re-plans for Block 1 and Block 2 software, and flares are in-place. Apertures are likely to stay late to their delivery schedule until mid-summer. Full Block 1 software functionality for the April delivery is not likely at this time. Meeting end of '07 hardware delivery milestones will be difficult.

has a good Risk Management process; however, 6 of 22 risk mitigation plans are delayed or off-track (all by more than 60 days). Three (LEF apertures, Common Components, and requirements stability) are awaiting inputs from external sources
.vhile three (Flares, DRFM, and reliability) are late for reasons controlled by and by their major suppliers.

There is a high risk of not meeting the 400 hour system level mean-time-between failure (MTBF) requirement by the end of SDD. As risk mitigation, had budgeted methods of "growing" reliability earlier than originally planned, but cost constraints resulted in LM Aero cancelling the Reliability Growth Tests (RGT). These tests were the primary vehicle for improving MTBF during SDD. Reinstating some reliability growth testing in SDD is being considered.

Supplier Diminishing Manufacturing Sources (DMS) Issues –

A MMIC die (P/N: AG2B), used in most of the modules built by is no longer available. The process for making the die was changed. A short-term solution involving a replacement part was considered, but was not viable. will run out of this part for JSF during LRIP 2 (not LRIP 3 as hoped). LRIP 2 will require module redesign to accommodate a replacement part. The EW IPT has received the ECP and is just beginning its evaluation. is awaiting formal turn-on and funding from LM Aero. awaiting formal turn-on for redesign efforts.

Watch Items –

BFE Racks and Cables – Rack deliveries, for use in qualification testing, are late to needs due to a rack/cable shielding issue. This has negatively impacted Qualification Test schedules. BF-4 racks will be sent directly to the aircraft for installation. There are two potentially systemic issues related to racks and cables. The first is that waivers/variances for common components (i.e. racks) are being granted by without consulting the end-user (i.e. The second issue is that some electrical requirements required by the EW system may not have been flowed down to the rack and cable specifications as intended.

1437 Integrated Core Processor ICP

During the ESS vibration testing of the first SDD TR1 IBA it was noticed that upon completion of the vibration testing the unit no longer passed the ATP optical loss requirements. Assembly process has been changed per Lockheed's visit tc d enough connectors have shipped or continued assembly. Failure Review Board is monitoring for root cause and proposed resolution as far as the actual TR1 IBA failure. A TFRR (64) was also generated to track this issue. A note about this connector issue is that this 38999 connector may also be used on other F-35 assemblies and should be looked at on the aircraft also.

Successful System Checkout Procedures (SCOPs)

DCMA is currently waiting for the formal release of Master Schedule 6.1 which will redefine the schedule dates for all follow on variants. We do not believe MS6.1 will have much if any impact on BF-1 at this point in time.

Current estimate is that on-time starts for SCOPs are holding at 3 month behind schedule. Missed testing starts in Sept and Nov had a considerable effect on the schedule slippage due to a large number of SCOP tests planned during that timeframe. Please note that testing at the prime partners for the Center Fuselage and Aft sections are not currently integrated in this data.

This month we have obtained a new list from LM of 115 SCOPs which were planned to be completed on BF-1 prior to first flight. An additional 12 SCOPs not included in this revised list have current planning in place; 4 of which have been completed. As stated in last months report we expect this figure will grow an additional 15% over the next few months.

The data for this metric represents the number of SCOPs completed vs. the number of SCOPs scheduled for completion during the month. The target goal is for a $\geq$ 90% completion rate as scheduled. Data is represented as a burn down metric.

For current on-time completion rate see attached documents. The current goal is to accomplish ≥ 90% on-time completion.

Improved Software Productivity

DCMA LM Fort Worth: Performance Commitment: Improve Software Productivity [WBS 1420 Airborne Software Development]

DCMA LM Fort Worth efforts to influence software productivity have recently been focused on reviewing the problem anomaly resolution process within Mission Systems. Our initial phase of this effort included reviewing software engineering instructions, program plans, as well as change document artifacts (System Problem Anomaly Reports, Corrective Action Plans, etc). From this effort we generated a list of questions and presented them to the LM Mission System's Tier 3 SPAR Review Board Deputy on 6 Dec 07. LM Aero is working on a response to our list of process review questions.

DCM[illegible] -Prognostics and Health Management (PHM) Requirements [WBS: 114A – Requirements]

DCMA is currently in the process of evaluating a new and improved methodology for measuring rework proposed by an MS S/W Domains manager. Tool incompatibilities and Requirements fluidity are a few of root causes of rework. DCMA has, and will continue to focus on these and other root causes. A number of activities have been initiated to potentially improve PHM requirements maturity problems. These include, but are the Return to Green effort, Six Sigma and Black Belt efforts, Lean and Value Stream Mapping efforts (which DCMA has began more actively tracking and will status next month).

DCM[illegible] --Prognostics and Health Management (PHM) Software [WBS: 114C - Software]

DCMA is currently in the process of evaluating a new and improved methodology for measuring rework proposed by an MS S/W Domains manager. DCMA conducted an independent assessment of the Software Quality Assurance group, focusing on the S/W Process Evaluation process to determine the maturity of this function. The organization "aced" the assessment and was determined to be thorough and effective in performing the SPE process with only very minor exception. DCMA will be following up with a more complete assessment of the Mission Systems organization as it anticipates attending a full CMMI SCAMPI, sometime in the 2nd quarter 2008

DCMA -[WBS 1424 – Mission Domain]

One of the objectives of a recent reorganization which relocated responsibility for Phase III RWP development to 1420 Airborne Software is to reduce rework. DCMA has been monitoring the rework trend and mitigation actions.

DCMA -[WBS 1428 - Fire Control NAV & Stores]

(Responsibility for NAV functionality relocated to WBS 1428 from Own Ship Sensor WBS 1426)

DCMA conducted an independent assessment of the Software Quality Assurance group, during which it focused on the S/W Process Evaluation process to determine the maturity of this function. The organization was subsequently determined to be thorough and effective in the regular performance of the SPE process with only very minor notations. DCMA has been conducting a study of these key software tools and services (often called TFE) which are fundamental to the F-35 software development/ integration environment. These tools include (but are not limited to) CPSW, JADE, SIMS and others.

DCMA [WBS 1437 –

Integrated Core Processor (ICP)]

and DCMA reviewed the following procedures while conducting Q.A. Audit: Software Audit, Risk Management, and JSF-Requirements Management, Requirements Verification. There were some minor findings but no major findings were discovered for this month. The supplier achieved an overall rating of 94% based on checklist scoring.

Predictive Analysis of SDD Cost, Schedule and Performance Variance

The DCMA IEAC is based upon the figures provided in the November CPR report. LM incurred about dollars on average for the last six months. If the program is delayed by a year, DCMA estimates that it will cost an additional amount of dollars to complete the SDD contract.

LM Aero indicates that a rough estimate at the present time will result in an increase of dollars to the total program.

Lockheed is now reporting to an Over Target Baseline of eported in the Cost Performance Report (CPR). The November 2007 cost summary is as follows:

	BAC	LM EAC CPR	DCMA IEAC
Performance Measurement Baseline (PMB)			
Management Reserve (MR)			
Total:			

Table 1 – Budget Baseline and EAC Summaries

Primary Trip Wires		Secondary Trip Wires						
System Indicator	Baseline Indicator	Cum BEI	SPI	Cum CPLI	CPI	CPI/TCPI 10%	Contract Mods 10%	Baseline Revs 5%
(a) Yellow	**(b) Yellow**	**0.90**	[redacted]	**0.92**	[redacted]	**5.3%**	[redacted]	**N/A**

Primary Trip Wires –
(a) System Indicator: Please see EV section of report.
(b) Baseline Indicators: A baseline assessment shows the contractors BAC and EAC to be optimistic. To complete the contract within the CBB, the contractor needs to be about 5.3 percent more efficient. The BAC has increased by 36% since the start up in Oct of 2001. The cost growth is likely to increase due to inherent engineering risks in the first versions of STOVL and CV aircraft.

Secondary Trip Wires –
The Baseline Execution Index (BEI) metric is an Integrated Master Schedule (IMS) based metric that calculates the efficiency with which actual work has been accomplished for the SDD Program when measured against the baseline. The BEI provides insight into the realism of program cost, resource, and schedule estimates. An index of 1.0 indicates the program is being completed as planned.

- Baseline Execution Index (BEI): Cumulative Tasks from October 2001 thru December 2007: Cum BEI = 117,828 Completed Tasks/130,860 Planned Tasks = 0.90
  Monthly (December 2007) BEI = 815 Completed Tasks/1745 Planned Tasks = **0.47**
- SPI= BCWP/BCWS= $15,723,339/15,993,254=0.983

The Critical Path Length Index (CPLI) indicates whether or not the program schedule can be completed on time. This is an Integrated Master Schedule (IMS) based metric that calculates the longest, continuous sequence of tasks through the SDD Program network schedule from contract start to contract completion. An index of 1.0 indicates the program will finish on-time. CPLI = (Critical $Path_{Baseline}$ Duration + Float Duration) / Critical $Path_{Baseline}$ Duration

- CPLI= (2990 + (236))/2990 = 0.92
- CPI= BCWP/ACWP= .979
- CPI/TCPI= 0.979/1.029=.947
- Contracts Mods – (BAC now)/original BAC 10/01= .360

The DCMA Risk Rating for EVMS at the total program level is rated Yellow - using the agreed to parameter of VAC (-5.94%). Compare this to the Lockheed's EAC and one can see a

difference of over 5%. Similarly, the $TCPI_{EAC}$ is different when using the DCMA IEAC versus the contractor's EAC:

$TCPI_{DCMA\ IEAC}$ = 0.877
$TCPI_{LM\ EAC}$ = 1.034

Cumulative to date SPI and CPI are at .982 and .979 compared to .983 and .980 in the previous month. Cumulative SV% and CV% are -1.79% and -2.14%, compared to -1.69% and -2.04% in previous month and are also rated green.

Please see the EV section of this report for additional EV information.

Delegated Field Assessments

Fourteen suppliers were tracked in December (see Supplier Quality Rating chart)

Of these fourteen suppliers, only one was rated Red for the month of December - Three Quality Assurance Reports (1 for each part number) were issued for the Engine Starter Generator connector. These connectors were unable to align with the back shell because the teeth are the same thickness as the connector. The root cause is under investigation.

The locking ring clip (embrittlement) issue on the Stores and Release Equipment System that was first reported in October is updated as follows: The heat treat facility, subcontracted tc he clip manufacturer, has determined that they could not control temperature or hardness per the requirements identified in the action items. has opted to discontinue their business with the clip heat treat process. in the process of qualifying a new heat treat facility. updated the corrective action plan to reflect that action. A Corrective Action Request (CAR) was written to by LMFW for not flowing down FOD requirements to their subtier. nas updated all open purchase orders issued to assembly suppliers for the JSF program with Quality Clause Q36 Foreign Object Debris. Parts subjected to incoming inspection and assemblies manufactured at vill be inspected to the FOD Prevention Plan.

Appendix A – EV Assessment Criteria

Rating Criteria is based on the DCMA VAC% and when possible should include MR in the DCMA IEAC

[redacted] - VAC%>-5%

Yellow - -10%<VAC%<-5%

[redacted] - VAC%<-10%

N/R - Not Rated or Not Reported