UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION

UNITED STATES OF AMERICA	)	
***ex rel.* Paul J. Solomon,**	)	
	)	**CIVIL ACTION NO. 3:12-CV-4495-D**
Plaintiffs,	)	
	)	
LOCKHEED MARTIN CORP. and	)	
NORTHROP GRUMMAN SYSTEMS CORP.,	)	**FALSE CLAIMS ACT COMPLAINT**
	)	
Defendants.	)	**JURY TRIAL REQUESTED**

DECLARATION OF PAUL J. SOLOMON IN SUPPORT OF RELATOR'S RESPONSE TO DEFENDANT LOCKHEED MARTIN CORP.'S MOTION FOR SUMMARY JUDGMENT

I, PAUL J. SOLOMON, declare under penalty of perjury as follows:

1. I am the Relator bringing suit on behalf of the United States of America in this matter. I am a resident of Westlake Village in Los Angeles County, California. I am over the age of 21 years, and have never been convicted of a felony. I have personal knowledge of the facts set forth in this Declaration, and am competent to testify about the matters stated herein.

2. I am the original source of the information that forms the basis for my allegations in this matter, and that information is based on the direct and independent knowledge I gained while employed by Defendant Northrop Grumman Systems Corporation both during and after my work on the F-35 Joint Strike Fighter ("JSF") program, on which Northrop acted as a subcontractor to Defendant Lockheed Martin Corporation.

3. I was employed by Northrop in various capacities for more 30 years. Between 1973–1977, I was Controller for Northrop Data Processing. Between 1979–1984, I was Overhead Assistant Controller for the Air Combat Systems ("ACS") business area of Northrop's

Integrated Systems sector. Between 1985–1988, I was Northrop's Capital Assets Controller for the B-2 Stealth Bomber program. Between 1989 and 2005, I worked as an "Earned Value Monitor" or "EVMS Monitor" for various Northrop programs including the B-2 and the Global Hawk.

4. In September 2005, I was assigned by Northrop to the F-35 JSF program as the "EVMS Monitor" for the program, and I held that position until Northrop reassigned me in late August 2007. During my work on the JSF program, I was assigned to the Air Combat Systems ("ACS") business area of Northrop's Integrated Systems sector. I performed my work on the JSF program at the Northrop facility in El Segundo, California, which is part of Northrop's "Integrated Systems – Western Region" ("ISWR").

5. Lockheed acts as the prime contractor on the JSF program. Lockheed's primary responsibilities on the JSF program include, but are not limited to, performance of aircraft final assembly, overall system integration, mission system, and providing forward fuselage, wings, and flight control systems. On October 21, 2001, the Defense Department's Joint Strike Fighter Program Office ("JPO") entered into the "Joint Strike Fighter Systems Design and Development Program Conformal Contract, contract N00019-02-C-3002 through P00012" (the "SDD Contract") with Lockheed. The SDD Contract was the prime contract that governed Lockheed's participation in the development and production of the F-35 during the time period at issue in this action.

6. Northrop's ISWR/ACS division acts as a subcontractor to Lockheed on the JSF program, and its responsibilities include, but are not limited to, providing center fuselage and weapons bay. Lockheed and Northrop signed a Teaming Agreement relating to the JSF program on April 15, 1999, and executed a Memorandum of Agreement for Work Content on the JSF

program on September 17, 1999, under which Northrop would act as a subcontractor to Lockheed. Pursuant to the Teaming Agreement, Lockheed awarded an Implementing Subcontract to Northrop under Purchase Order Number M4383, dated July 29, 2002.

7. After I was reassigned from my duties on the JSF program in late August 2007, I continued to work for Northrop as an Earned Value Analyst for ISWR/ACS, working on process improvements and as the EVMS Monitor for another program. I retired from Northrop in August 2008.

8. In 1990, I graduated with honors from the Air Force Institute of Technology's course on Cost/Schedule Control Systems Criteria, which certified me as being qualified to perform Earned Value Management System certification and compliance reviews.

9. Between 1992–2000, I was Northrop's representative on the National Defense Industrial Association's ("NDIA") Program Management System Committee, and in 2000 I was that committee's Vice President. Between 1993–1998, I was a member of the NDIA subcommittee that created the ANSI 748-A Standard for Earned Value Management Systems (EVMS). Exhibit 1 is a true and correct copy of the ANSI 748-A Standard for Earned Value Management Systems, which was approved on May 19, 1998. This document is referred to and discussed specifically in Paragraph 43 of the First Amended Complaint. This EVMS standard is used throughout the defense contracting industry, and is routinely incorporated into U.S. government contracts. During the time period at issue in this lawsuit, compliance with the EVMS standard was required by Lockheed and Northrop's contracts with the government for the JSF program.

10. On May 4, 1998, in recognition of my work on the ANSI EVMS standard, I received the David Packard Excellence in Acquisition Award, which is given by the Department

of Defense to civilian and/or military organizations, groups, and teams who have demonstrated exemplary innovations and best practices in the defense acquisition process.

11. From approximately 1992 until my retirement in August 2008, I was Northrop's leading expert on EVMS systems and compliance. I regularly offered EVMS training classes and seminars that were attended by numerous Northrop employees, as well as by personnel from the Defense Department's Defense Contract Management Agency ("DCMA").

12. Since my retirement from Northrop in August 2008, I have continued to advocate for improvements and enhancements in the defense acquisition process. On September 3, 2009, I gave two speeches at the DCMA Earned Value Management Center's annual conference in Nashville, Tennessee. My recommendations for more effective implementation of Earned Value Management were incorporated into the Defense Department's September 2009 report to Congress on "Earned Value Management: Performance, Oversight, and Governance," which report was mandated by the Weapon Systems Acquisition Reform Act of 2009. I have corresponded with numerous members of Congress on defense oversight committees, including Sen. John McCain, Sen. Claire McCaskill, Rep. Henry Waxman, and Rep. Isaac Newton "Ike" Skelton, as well as high-ranking Defense Department officials such as Assistant Secretary of Defense for Acquisition Katrina McFarland. Exhibit 2 is a true and correct copy of an August 7, 2013 e-mail I received from Assistant Secretary McFarland in which she thanked me for my efforts and described me as a "great American."

13. In the course of my employment at Northrop and my work on the EVMS standard, I became familiar with the Defense Department's regulations, standard contract provisions, and guidelines pertaining to the use of EVMS.

14. Exhibit 3 is a true and correct copy of Appendix 4 from the Defense Department's

regulation DoD 5000.2-R (April 5, 2002), *Mandatory Procedures for Major Defense Acquisition Programs (MDAPS) and Major Automated Information System (MAIS) Acquisition Programs*. Appendix 4 mandates the use on certain defense contracts of EVMS guidelines consistent with the 1998 ANSI/EIA 748 Standard. During the time period at issue in this lawsuit, use of EVMS guidelines consistent with the 1998 ANSI/EIA 748 Standard was mandated on Lockheed and Northrop's contracts with the government for the F-35 JSF program. This document is referred to and discussed specifically in Paragraph 40 of the First Amended Complaint.

15. Exhibit 4 is a true and correct copy of Defense Federal Acquisition Regulation (DFAR) 252.234-7001, which requires contractors on certain major defense programs to maintain an EVMS-compliant accounting system for estimating and managing costs. This regulation was incorporated into the System Design and Development ("SDD") Contract that governed the F-35 JSF program. This document is referred to and discussed specifically in Paragraphs 40 and 42 of the First Amended Complaint.

16. Exhibit 5 is a true and correct copy of the May 7, 2003 edition of the "Over Target Baseline and Over Target Schedule Handbook" ("OTB Handbook"), which was a collaborative effort by the Department of Defense and the College of Performance Management. Among other things, the OTB Handbook provides guidelines for conducting a "Replan" when a program has significantly exceeded its original budget and/or fallen behind its original schedule.

17. Exhibit 6 is a true and correct copy of excerpts from the October 2006 edition of the Defense Department's Earned Value Management Implementation Guide, which contains uniform procedures and guidance approved by the Defense Contract Management Agency ("DCMA") for the implementation of EVMS-compliant systems.

18. I first began performing EVMS-related work for Northrop in 1989, and in the

course of that work I became familiar with Northrop's internal EVMS management procedures (or "Command Media"). I was also a key contributor to process improvements that were incorporated into Northrop's Command Media. In addition, because Northrop operated as a subcontractor to Defendant Lockheed Martin Corp. on the JSF program, in the course of my work on the JSF program between September 2005 and August 2007 I also became familiar with Lockheed's internal management procedures (or "Command Media") relating to EVMS compliance on the JSF program.

19. Exhibit 7 is a true and correct copy of Lockheed Command Media, specifically the August 2005 version of Lockheed's JSF EVM Process Description 5.0, which describes the procedures for cost performance reporting on the JSF program. On a monthly basis, Lockheed received cost performance data from its major subcontractors, including Northrop, and consolidated that data together with its own cost performance data. Lockheed then used the program-wide data to prepare the monthly Contract Performance Reports (discussed below) that Lockheed was required to submit to the government. *See id.* ¶ 5.1.3.

20. Exhibit 8 is a true and correct copy of Lockheed Command Media, specifically the September 2005 version of Lockheed's JSF EVM Process Description 6.0, which describes the procedures for requesting and approving changes to the JSF program's Estimate At Completion ("EAC") and budget. An EAC is the estimated total cost at the completion of the program, and consists of the sum of cumulative actual costs to date, plus the most likely estimate of future costs to complete the program. The estimated future cost component of the EAC is called the "Estimate to Complete" or "ETC." Changes in the official EAC, including for subcontractors such as Northrop, required approval from senior management at Lockheed. *See id.* ¶¶ 6.1.1–2.

21. Exhibit 9 is a true and correct copy of Lockheed Command Media, specifically the August 2005 version of Lockheed's JSF EVM Process Description 7.0, which describes the procedures for using "Management Reserve" budget on the JSF program. Management Reserve refers to the portion of a contractor's budget that is set aside to be saved for unforeseen contingencies that were not anticipated at the time the original budget was prepared. On the JSF program, all disbursements of Management Reserve budget, including for use by subcontractors such as Northrop, required approval by Lockheed. Any disbursement in excess of $1 million required approval by Lockheed's Executive Steering Committee. *See id.* ¶ 7.1.4. Lockheed's Process makes clear that Management Reserve is meant for "current and future needs," and specifically prohibits the use of Management Reserve for offsetting accumulated cost overruns or "for the mere purpose of improving performance metrics." *Id.* ¶¶ 7.0, 7.1.2. This document is referred to and discussed specifically in Paragraph 49 of the First Amended Complaint.

22. Exhibit 10 is a true and correct copy of Lockheed Command Media, specifically the August 2005 version of Lockheed's JSF EVM Process Description 8.0, which describes the procedures for preparing comprehensive Estimates at Completion on the JSF program. Consistent with the 1998 ANSI/EIA 748 Standard, Lockheed's Process requires that the EAC be "the most likely cost assessment (i.e., there is equal chance the actual cost will be lower or higher by the same amount) for the completion of all authorized work" (p.2). This document is referred to and discussed specifically in Paragraph 45 of the First Amended Complaint.

23. Under the SDD Contract, Lockheed (and Northrop through Lockheed) was required to provide the JSF Program Office ("JPO") with detailed reports on its cost performance and cost variance. Northrop provided Lockheed with information from its own cost data base, and Lockheed incorporated Northrop's numbers into the totals it reported for the whole JSF

program pursuant to Defense Department Data Item Description DI-MGMT-81466A (Exhibit 12) and Lockheed's JSF EVM Process Description 5.0 (Exhibit 7). Each month, Lockheed's JSF Business Manager submitted a Cost Performance Report ("CPR") to JPO. Each CPR included, among other things, cost and budget information, including cost variances, as well as a statement of the amount of increase or decrease in Management Reserve for that month, and of the total amount of Management Reserve budget remaining.

24. Exhibit 11 is a true and correct copy of SDD Contract Data Item A002, a provision of the SDD Contract which requires Lockheed to provide the government with Cost Performance Reports for the JSF program according to the requirements set forth in the Defense Department's Data Item Description DI-MGMT-81466A (Exhibit 12). Contract Data Item A002 was a standard provision of contracts containing EVMS requirements during the time period at issue in this lawsuit.

25. Exhibit 12 is a true and correct copy of the Defense Department's Data Item Description DI-MGMT-81466A. This document provides instructions to contractors for completing required cost and schedule performance reports on form DD-2734. These instructions were issued on March 30, 2005, and remained in effect until October 2011, and compliance with them was a standard requirement of contracts containing EVMS requirements during that period. These instructions governed Lockheed's reporting of cost performance information to the government during the time period at issue in this lawsuit. This document is referred to and discussed specifically in Paragraphs 44 and 48 of the First Amended Complaint.

26. Exhibit 13 is a true and correct copy of Defense Department form DD-2734 (Format 1), the first page of the Contract Performance Report form described in DI-MGMT-81466A. Use of this form, which was last revised in April 2005, is a standard requirement for

contracts containing EVMS requirements. It is the same form that Lockheed was required to submit to the government's JSF Program Office on a monthly basis during the time period at issue in this lawsuit, referred to in Paragraph 23 above.

27. Lockheed was also required under the SDD Contract to submit an annual Cost Data Summary Report (Form DD-1921) to JPO, which was due 45 days after the close of the calendar year. The Cost Data Summary Report contained Lockheed's Estimates at Completion (EACs).

28. In addition, Lockheed was required under the SDD Contract to provide a semi-annual "Self-Assessment" briefing to JPO's Award Fee Board. The Self-Assessment was due no later than 10 days after the close of each six-month Award Fee Period. One of the primary metrics reported by Lockheed in its Self-Assessment was the total cumulative cost variance for the project at the beginning and end of each Award Fee Period. JPO announced Lockheed's score, and the size of the Award Fee, about one month after the close of the period. Exhibit 14 is a true and correct copy of excerpts from the SDD Contract which pertain to the process for evaluating the performance of Lockheed and its subcontractors and calculating the amount of Award Fees earned. I reviewed these contract provisions in or around September 2007, shortly after Northrop removed me from surveillance duties on the F-35 program, and during the period that I was assembling evidence and documents in order to make a report of ethics violations to Northrop's corporate ethics officers. These SDD Contract excerpts are referred to and discussed specifically in Paragraphs 54 through 59 and 96 of the First Amended Complaint.

29. Exhibit 15 is a true and correct copy of a December 18, 2004 Lockheed document entitled "Independent Review of ACS EAC." I discovered this document in Northrop's electronic files in September 2007, shortly after Northrop removed me from surveillance duties

on the F-35 program, and during the period that I was assembling evidence and documents in order to make a report of ethics violations to Northrop's corporate ethics officers. According to this document, as of December 2004 Northrop had initially calculated its Estimate at Completion as $4.309 billion (p.5). Lockheed's Independent Review Committee revised Northrop's cost estimate downward to $3.954 billion (p.14), which represented Lockheed's most likely estimate of how much it would cost for Northrop to complete its portion of the F-35 program.

30. Exhibit 16 is a true and correct copy of the May 9, 2005 "Memorandum of Agreement between Northrop Grumman Systems Corporation and Lockheed Martin Corporation Concerning ACS Estimate at Complete [3]" (the "MOA"). I received this document in September 2007 from Northrop's Cost Management executive Darrell Baker, shortly after Northrop removed me from surveillance duties on the F-35 program and during the period that I was assembling evidence and documents in order to make a report of ethics violations to Northrop's corporate ethics officers. According to the MOA, Lockheed's Independent Review Team had calculated Northrop's EAC3 at $3.954 billion. However, the MOA states that on January 17, 2005, Lockheed and Northrop agreed to use an official EAC for Northrop of only $3.721 billion, in light of the "affordability considerations" facing the JSF program. It further states that the parties agreed that the $3.721 billion EAC3 number represented a "Should Perform Target," which would constitute "a significant performance challenge which can be accomplished only by achieving substantial performance efficiencies in a number of areas beyond otherwise normal expectations." The MOA further states that, in the event Northrop was unable to achieve the "Required Performance" challenge assumptions that were set forth in Attachment B of the MOA, and was unable to stay within the $3.721 billion cost target, Lockheed would use Management Reserve to increase Northrop's budget and cover Northrop's

costs in excess of $3.721 billion.

31. Exhibit 17 is a true and correct copy of a report I generated on September 14, 2007 using the "wInsight" report generator from Northrop's cost/schedule database, Microframe Project Manager (MPM). This database was the source of the cost performance information Northrop provided to Lockheed each month for inclusion in the monthly Contract Performance Reports that Lockheed submitted to the government pursuant to Defense Department Data Item Description DI-MGMT-81466A (Exhibit 12) and Lockheed's JSF EVM Process Description 5.0 (Exhibit 7). The "EAC" row in the report shows the official Estimate at Completion that Northrop reported for each of the months between March 2006 and July 2007. Page 3 of the report shows that, for a four-month period in early 2006, Northrop's official EAC was even lower than the understated EAC of $3.721 billion that was set forth in the MOA. In March 2006, Northrop's system reflected an EAC of $3.698 billion; at the end of April it was $3.707 billion; at the beginning of June it was $3.710 billion; and at the end of June 2006 it was $3.694 billion. *Id*. Up through the end of July 2007, Northrop's reported EAC continued to be lower than the $3.954 billion "most likely" EAC that Lockheed's Independent Review Team had calculated. *See id*. pp. 1, 3, 5, 7.

32. In my position as EVMS Monitor, I was responsible for monitoring and supervising Northrop's compliance with the EVMS standard on the F-35 program. I also became aware of Lockheed's conduct with regard to EVMS compliance at Northrop, insofar as Lockheed approved, denied, or failed to act on requests to change Northrop's EAC estimates, and approved the release of Management Reserve budget for use at Northrop. I regularly conducted "surveillance" reviews across different segments of the program, in order to ensure that Northrop's Control Account Managers ("CAMs") were properly accounting for and

reporting their cost and schedule performance. I reported my surveillance findings, and made recommendations for corrective action, in numerous memoranda which I sent both to Northrop's senior management and to my government counterparts at DCMA.

33. At the beginning of each year, I drafted "surveillance plans" that laid out the year's agenda for investigating and monitoring EVMS compliance across Northrop's portion of the F-35 program. Two examples of these plans, for 2006 and 2007, can be seen at pages 121–180 of the Appendix to Northrop's Summary Judgment Motion. I took the lead in setting surveillance priorities and in deciding which accounts to investigate and on what schedule. I was not bound by the schedule in the yearly plan, and had full discretion to direct the scope of my investigations, including any accounts or compliance issues as they came to my attention. At the end of each year, I conducted a risk-based analysis to identify and prioritize "problem" areas I believed were most likely to have compliance issues.

34. I identified potential problem areas on my own and without direction by, among other means, continuously monitoring Northrop's cost/schedule database, MPM. Using MPM's wInsight reporting tool, I identified particular accounts which were over budget and/or behind schedule. I also reviewed variance analysis reports submitted by the CAMs in which they explained cost overruns or "behind schedule" conditions that were likely to result in their exceeding Lockheed and Northrop's official EAC estimates. I also reviewed the CAMs' documentation of related cost "pressures," and their requests to Northrop and Lockheed management that the EAC be increased to more accurately reflect their actual and estimated costs to complete their work. After identifying problem accounts, I wrote to the CAMs and asked them to gather documents and records in preparation for an interview with me. After concluding my interviews with the CAMs, I drafted "findings" in which I identified the problems

of non-compliance with the EVMS standard and JSF Command Media, assigned responsibility for fixing those problems, and outlined a corrective action plan. These findings formed the basis for the surveillance memoranda I sent to Northrop management and to my counterparts at DCMA.

35. DCMA stationed resident "EVMS monitors" at Northrop's El Segundo facility, whose job was to work with Northrop's EVMS monitor in conducting surveillance of EVMS compliance. During my tenure as EVMS monitor on the F-35 program, the DCMA monitor position was held first by Frank Guese and then by Robert Snyder and Keven Davis.

36. Exhibits 18 through 41 are true and correct copies of "surveillance reports" in which I reported the findings of my surveillance investigations to Northrop management and to DCMA, as follows:

Exhibit:	**Memo Number:**	**Date:**
18	TD21-EVM-05-52	Dec. 20, 2005
19	TD21-EVM-06-54	June 20, 2006
20	TD21-EVM-06-53	Aug. 6, 2006
21	TD21-EVM-06-78	Oct. 10, 2006
22	TD21-EVM-06-93	Oct. 23, 2006
23	TD21-EVM-06-85	Nov. 8, 2006
24	TD21-EVM-06-81	Dec. 7, 2006
25	TD21-EVM-06-94	Dec. 12, 2006
26	TD21-EVM-06-95	Dec. 12, 2006
27	TD21-EVM-06-98	Dec. 19, 2006
28	TD21-EVM-06-97	Dec. 20, 2006
29	TD21-EVM-07-04	Jan. 15, 2007
30	TD21-EVM-07-26	April 3, 2007
31	TD21-EVM-07-07	April 13, 2007

32	TD21-EVM-07-31	April 16, 2007
33	TD21-EVM-07-40	May 9, 2007
34	TD21-EVM-07-41	May 21, 2007
35	TD21-EVM-07-60 (draft)	July 25, 2007
36	TD21-EVM-07-65	July 31, 2007
37	TD21-EVM-07-66	Aug. 13, 2007
38	TD21-EVM-07-68	Aug. 14, 2007
39	TD21-EVM-07-69	Aug. 15, 2007
40	TD21-EVM-07-70	Aug. 15, 2007
41	TD21-EVM-07-71	Aug. 22, 2007

37. Exhibits 42 through 48 are true and correct copies of e-mails I exchanged with Northrop management and/or DCMA personnel relating to my surveillance findings:

Exhibit:	**Participants:**	**Date:**
42	Paul Solomon, Ralph Settle (Northrop)	Sept. 22, 2006
43	Paul Solomon, Robert Snyder (DCMA)	March 27, 2007
44	Paul Solomon, John Gamble (DCMA), Keven Davis (DCMA), Robert Snyder (DCMA)	April 25, 2007
45	Paul Solomon, Keven Davis (DCMA)	July 19, 2007
46	Paul Solomon, Keven Davis (DCMA)	July 23, 2007
47	Paul Solomon, Ralph Settle (Northrop), Keven Davis (DCMA)	Aug. 7, 2007
48	Paul Solomon, Keven Davis (DCMA)	Aug. 13, 2007

38. In the normal course of affairs, the compliance issues identified in my surveillance report findings should have been addressed by Lockheed and/or Northrop and corrected within one or two months. However, my experience on the JSF program was that many of my findings remained "open" (*i.e.*, not corrected) for many months or even for over one year, and the EVMS violations persisted, because senior management at Northrop repeatedly

ignored my reports and recommendations, because Lockheed management continued to misuse Management Reserve budget, and/or because Lockheed management failed to reverse previous misuses of Management Reserve.

39. Exhibit 42 is a true and correct copy of a September 22, 2006 e-mail exchange between me and Northrop's Program Cost Controller Ralph Settle, in which I advised Settle not to proceed with a proposed rebaselining of the EAC4 "estimates to complete" into a new Performance Measurement Baseline ("PMB"). The proposed rebaselining would have made an unauthorized change to the baseline that would result in the reporting of false and misleading cost and schedule variances. I explained to Settle that the EVMS standard and Command Media do not allow such revisions to the PMB. However, Settle did not follow my advice. The following year, in my August 15, 2007 surveillance report TD21-EVM-07-70 (Ex. 40), I reiterated to Northrop management and to DCMA that "there are chronic and pervasive problems regarding baseline revisions and the accuracy of the Performance Measurement Baseline (PMB)."

40. On August 22, 2007, shortly before I was transferred out of the F-35 program, I issued my final surveillance report, TD21-EVM-07-71 (Ex. 41). In that report, I reiterated to Northrop management and to DCMA the numerous findings of systematic problems I had previously reported going back to 2005, which had not been corrected. One example of such recurring issues was my finding that Northrop's estimates for labor costs were understated by $19.6 million because the official EAC was not updated to reflect current "most likely" hourly rates.

41. Using the "Pressures Log" database, DCROM, that was shared by Northrop and Lockheed, I was able to monitor the "pressure change requests" submitted by the CAMs, as well

as the status of their requests to Northrop and Lockheed management to increase their EACs in order to more accurately reflect their actual costs, realistic projections of cost and schedule performance, and expected completion dates.

42. Changes in the official EAC for Northrop required approval from senior management at both Lockheed and Northrop. *See* Ex. 8, Lockheed JSF Process ¶¶ 6.1.1–2. According to Lockheed's JSF Command Media, the "Program goal" is to dispose of all cost pressures within sixty days after they are first reported. *Id*. ¶ 6.1.1. However, I directly observed in the Pressures Log database, and confirmed through my discussions with Northrop CAMs, that in numerous cases Lockheed and/or Northrop senior management failed to timely respond to the CAMs' pressure change requests and EAC change requests, with the result that Northrop's official EAC (and, in turn, Lockheed's program-wide EAC) failed to reflect the latest and most realistic cost projections. For example, my August 6, 2006 memo TD21-EVM-06-53 (Ex. 20) identified at least nineteen examples of change requests to which Lockheed had not timely responded, some of which had been submitted more than a year previously. A year later, in my July 25, 2007 draft surveillance report TD21-EVM-07-60 (Ex. 35) (which I shared with the DCMA resident EVMS monitors), I reported that the "most likely" cost for Material Fulfillment was $8.2 million higher than the official EAC, and the "most likely" cost for Offsite Tooling was $8.6 million higher than the official EAC. I identified Lockheed's ongoing failure to approve these and similar EAC change requests as the "root cause" of many inaccuracies in Northrop's estimates to completion ("ETCs"). DCMA EVMS monitor Keven Davis concurred in this finding, and agreed to refer it to the DCMA EVMS monitors at Lockheed. (*See* Ex. 46, Davis e-mail to Solomon, July 23, 2007).

43. Throughout my tenure as EVMS monitor, I observed that Northrop's official

Estimates at Completion – which were required to be incorporated into Lockheed's program-wide EACs pursuant to Defense Department Data Item Description DI-MGMT-81466A (Exhibit 12) and Lockheed's JSF EVM Process Description 5.0 (Exhibit 7) – were consistently understated and did not accurately reflect realistic and up-to-date "most likely" estimated costs. On December 20, 2005, three months after I joined the JSF program, I reported to Northrop management and to DCMA in my surveillance report TD21-EVM-05-52 (Ex. 18) that Northrop's cost variance analyses were inadequate, and that Northrop's CAMs were not performing the required monthly EAC analyses and were not timely submitting requests to update their EACs in order to more accurately reflect actual costs, realistic projections of cost and schedule performance, and expected completion dates.

44. In June 2007, Lockheed and Northrop developed a revised official estimate, EAC5. However, as I observed and reported to Northrop management and to DCMA in my August 13, 2007 surveillance report TD21-EVM-07-66 (Ex. 37), actual costs on a number of Northrop accounts had already exceeded the official EAC5 estimate within the first month after it was implemented. In my August 15, 2007 surveillance report TD21-EVM-07-69 (Ex. 39), I reported to Northrop management and to DCMA that Northrop's official EAC5 (and, in turn, Lockheed's program-wide EAC5) was already understated by at least $50 million, because Lockheed management (the "Program Office") had disregarded numerous requests from CAMs for EAC increases. The result of this ongoing understatement of "most likely" cost estimates was that Northrop's data for cost variance at completion – which Lockheed incorporated into the program-wide cost performance reports it submitted to the government pursuant to Defense Department Data Item Description DI-MGMT-81466A (Exhibit 12) and Lockheed's JSF EVM Process Description 5.0 (Exhibit 7) – was consistently understated and failed to account for the

most likely costs at completion.

45. My investigations and interviews revealed that on numerous occasions, when Lockheed and/or Northrop management denied or failed to timely act on CAMs' requests to increase the EAC to reflect higher actual costs and higher "most likely" estimates of future costs, the CAMs responded by reducing their cost projections to a lower, less realistic number that corresponded to the official EAC. I reported this issue to Northrop management and to DCMA on multiple occasions, including in my June 20, 2006 surveillance report TD21-EVM-06-54 (Ex. 19) and my August 8, 2006 surveillance report TD21-EVM-06-53 (Ex. 20). A year later, in my July 31, 2007 surveillance report TD21-EVM-07-65 (Ex. 36), I reported to Northrop management and to DCMA that a CAM on one of the Tooling accounts, who had calculated a "most likely" cost estimate that significantly exceeded the official EAC, made negative adjustments to his estimate in order to match it to the official EAC. This resulted in an unrealistic estimate in which the CAM predicted completion of the project at a cost of only $0.8 million, even though the remaining work needed to finish the project had been budgeted at a cost of $1.5 million. The CAM had no documentation of any realistic plan to support such a dramatic improvement in cost performance. In another case, which I reported to Northrop management and to DCMA in my May 21, 2007 surveillance report TD21-EVM-07-41 (Ex. 34), a CAM recorded a negative "estimate to complete" of $3.3 million for January 2013 (a date that was nearly six years in the future, and beyond the contract completion date) in order to reduce his current cost estimate and match it to Lockheed's official EAC.

46. In my July 31, 2007 surveillance report TD21-EVM-07-65 (Ex. 36), I reported to Northrop management and to DCMA that the failure of Lockheed and/or Northrop management to approve EAC change requests on a timely basis was "a root cause of many EVMS findings"

regarding the inaccuracy of the Estimates to Complete ("ETCs") in Northrop's Earned Value database, MPM. *Id*. p.10. My findings disclosed that in order to "balance" the MPM numbers to the official EAC, the CAMs prepared ETCs that were inaccurate and unrealistic for one or more of the following reasons (*see id.*):

a. They assumed arbitrary completion dates that preceded the real completion date.

b. They estimated a cost to complete the project that was less than the budgeted cost of the remaining work required to finish the project.

c. They estimated a negative cost to complete the project.

d. They resulted in a lack of cost/schedule integration.

47. The SDD Contract required Lockheed and its subcontractors to develop "affordability initiatives" (*see, e.g.*, Ex. 14 pp. J-1-38, 40, 42–44, 46), and "Affordability" was one of the four Areas of Emphasis on which JPO evaluated Lockheed's performance for purposes of determining Award Fees. *See id*. pp. H-8, H-9, J-7-1. It was the responsibility of the individual CAMs to develop specific, concrete plans (sometimes called "Return to Green" plans) for achieving efficiencies and cutting costs at the account level. However, my investigations and interviews with numerous Northrop CAMs revealed that they typically had no specific or realistic plans for achieving the cost savings or efficiencies that would be needed in order to stay within the artificially low cost estimates in Lockheed and Northrop's official EACs. I reported the absence of such cost-saving plans to Northrop management and to DCMA on numerous occasions, including in my surveillance reports of August 6, 2006 (Ex. 20, TD21-EVM-06-53); April 13, 2007 (Ex. 31, TD21-EVM-07-07); and August 14, 2007 (Ex. 38, TD21-EVM-07-68). In April 2007, several of my findings on this point were referred to the DCMA resident monitors at Lockheed. *See* Ex. 38 p.2.

48. In the course of my surveillance duties on the JSF program, I uncovered numerous instances in which Lockheed and Northrop misused Management Reserve budget to falsely improve Northrop's cost performance numbers, and, in turn, Lockheed's program-wide cost performance. Each release of Management Reserve budget for Northrop required approval from Lockheed. *See* Ex. 9, Lockheed JSF Process 7.0, ¶ 7.1.3–4. My surveillance reviews encompassed only a sampling of a limited number of Northrop's cost accounts on the JSF program. My findings covered three consecutive six-month periods during which Lockheed and its subcontractors were evaluated by the government's JSF Program Office on their success at controlling costs as one of the criteria for determining the amount of Award Fees:

a. Award Fee Period 10: From May 1, 2006 to October 31, 2006.

b. Award Fee Period 11: From November 1, 2006 to April 30, 2007.

c. Award Fee Period 12: From May 1, 2007 to October 31, 2007.

49. During Award Fee Period 10 (May–October 2006), in the course of reviewing a limited number of accounts, I discovered and reported more than $10 million worth of transfers from Management Reserve by Lockheed which were used to conceal cost overruns and reduce Northrop's reported cost variances, in violation of the EVMS standard and of Lockheed's JSF Command Media. For example, I discovered and reported to Northrop management and to DCMA in my December 7, 2006 surveillance report TD21-EVM-06-81 (Ex. 24) that an unauthorized revision had been made to the Performance Measurement Baseline from a planning package, without being linked to a specific statement of work; that retroactive changes had been made to budgeted costs for already-completed work; and that earned value of $3.063 million had improperly been used for retroactive changes, which created a false, favorable cost variance. The cost performance for Tube & Weld between EAC3 and EAC4 had been better than

expected, so Northrop improperly transferred the savings from that account to cover up cost overruns in a different account. In this case, the CAM had followed Ralph Settle's direction to revise the EAC4 baseline, and – instead of transferring budget from a planning package that had no associated work into Management Reserve – the CAM transferred the budget directly into the Metallic Fabrication and NC Programming account, thus creating a *de facto* and improper transfer of budget from Management Reserve.

50. The following chart sets forth the examples of use of Management Reserve by Lockheed to reduce cost variances at Northrop that I observed during Award Fee Period 10:

Award Fee Period 10				
Contractor	WBS (1)	CPR Month(2)	Decrease in Cost Variance	Source:
Northrop	1622	Sept. 2006	$2,205,000	Ex. 21, TD21-EVM-06-78 Oct. 10, 2006
Northrop	3130	Sept. 2006	$3,063,000	Ex. 24, TD21-EVM-06-81 Dec. 7, 2006
Northrop	1412	Sept. 2006	$865,000	Ex. 26, TD21-EVM-06-95 Dec. 12, 2006
Northrop	1232	Sept. 2006	$1,716,000	Ex. 30, TD21-EVM-07-26 April 3, 2007
Northrop	1233	Sept. 2006	$1,657,000	Ex. 30, TD21-EVM-07-26 April 3, 2007
Northrop	1230	Sept. 2006	$7,236,000	Ex. 49, Sept. 2006 Variance Analysis Report
Total Sample			**$16,742,000**	
(1) WBS: Work Breakdown Structure Number				
(2) CPR: Contract Performance Report Month				

51. Exhibit 49 is a true and correct copy of a "Variance Analysis Report" for September 2006 that I obtained from Northrop's cost/schedule database in the course of my surveillance review of WBS 1230. It identifies $7,236,300 in Management Reserve that was

released by Lockheed and applied retroactively in order to improve Northrop's cost performance, contrary to Lockheed JSF Process ¶ 7.1.2 (Ex. 9).

52. During Award Fee Period 11 (November 2006–April 2007), in the course of my reviews of a limited number of accounts, I discovered and reported an additional $2.9 million worth of Management Reserve released by Lockheed and used by Northrop to cover its cost overruns, in violation of the EVMS standard and of Lockheed's JSF Command Media, as follows:

Award Fee Period 11				
Contractor	WBS (1)	CPR (2) Month	Decrease in Cost Variance	Source:
Northrop	3400	March 2007	$2,943,000	Ex. 44, April 25, 2007 e-mail from Solomon to DCMA with attached Budget Change Request
(1) WBS: Work Breakdown Structure Number				
(2) CPR: Contract Performance Month				

53. In the course of my reviews of a limited number of accounts, I discovered and reported additional examples of misuse of Management Reserve by Lockheed and Northrop to cover cost overruns that spanned multiple Award Fee periods, totaling more than $1.3 million:

Award Fee Periods 10 and 11 (May 2006–April 2007)				
Contractor	WBS (1)	CPR (2) Month	Decrease in Cost Variance	Source:
Northrop	1233		$1,325,000	Ex. 23, TD21-EVM-06-85 Nov. 8, 2006
Northrop	8230A		$20,000	Ex. 26, TD21-EVM-06-95 Dec. 12, 2006
Total			$1,345,000	

(1) WBS: Work Breakdown Structure Number	
(2) CPR: Contract Performance Month	

54. During Award Fee Period 12 (from May 2007 through my departure from the F-35 program in late August 2007), in the course of my reviews of a limited number of accounts, I discovered and reported additional examples of misuse of Management Reserve by Lockheed and Northrop to cover cost overruns, totaling more than $3.3 million:

Award Fee Period 12 (May 2007–October 2007)				
Contractor	WBS (1)	CPR (2) Month	Decrease in Cost Variance	Source:
Northrop	1238		$850,000	Ex. 38, TD21-EVM-07-68 Aug. 14, 2007
Northrop	1200		$2,500,000	Ex. 40, TD21-EVM-07-68 Aug. 14, 2007
Total			$3,350,000	
(1) WBS: Work Breakdown Structure Number				
(2) CPR: Contract Performance Month				

55. Using the wInsight report generator to monitor Northrop's MPM cost/schedule database, I was able to directly observe Lockheed's transfer of Management Reserve budget into Northrop accounts, and the effect of those transfers on Northrop's cost variance data. Each time that Lockheed released budget to Northrop from Management Reserve, I observed that Northrop's current period "cost variance" (*i.e.*, the earned value for the month minus the actual costs for the month) became positive. A positive cost variance is a cost underrun. For the same month, the cumulative cost overrun decreased by the amount of current period cost underrun. Over time, the total amount of the budget that was transferred from Management Reserve would

result in reduced cost overruns, as work was performed and earned value was taken. These changes in Northrop's cost variance numbers affected the cost performance data that Northrop submitted to Lockheed on a monthly basis for inclusion in the monthly Contract Performance Reports that Lockheed submitted to the government pursuant to Defense Department Data Item Description DI-MGMT-81466A (Exhibit 12) and Lockheed's JSF EVM Process Description 5.0 (Exhibit 7).

56. Exhibit 50 is a true and correct copy of a September 7, 2006 e-mail sent from Northrop Program Cost Controller Ralph Settle to numerous Northrop recipients. That e-mail included a slide entitled "EAC4 Risk Mitigation Areas" detailing Lockheed's allocation of $97 million in Management Reserve budget across the JSF Program, which included $77 million allocated to Lockheed itself, $11 million allocated to Northrop, and $9 million to another major subcontractor, BAE. This document was given to me in September 2006 by one of the Northrop financial analysts that supported the CAMs.

57. Exhibit 51 is a true and correct copy of a JSF Budget/Schedule/EAC Change Request form (SDD N00019-02-C-3002) dated October 12, 2006, which indicates that Northrop had requested, and Lockheed had approved, a disbursement of $9 million from Management Reserve. I discovered this document in the course of my surveillance reviews.

58. During the course of my surveillance investigations, I determined that Northrop used $9 million of the $11 million in Management Reserve allocated to it by Lockheed for "Risk Mitigation" to diminish its reported cost variances. The breakdown of the $9 million used by Northrop is set forth in the following chart. The "decrease in cost variance" represents the amount by which a transfer from Management Reserve was used to offset and conceal a cost overrun on a particular account (WBS, or "Work Breakdown Structure"), thus improving

Northrop's apparent performance (and, in turn, Lockheed's program-wide performance) on cost control:

Contractor	WBS	CPR Months	Budget Increase ($000s)	Decrease in Cost Variance	Source:
Northrop	1200	Sept. 2006 - Apr. 2007+	7000	$7,000,000	Ex. 29, TD21-EVM-07-04 Jan. 15, 2007
Northrop	1300	Same	2000	$2,000,000	Ex. 29, TD21-EVM-07-04 Jan. 15, 2007
Total Northrop			9000	$9,000,000	

59. As I explained to Northrop management and to DCMA in my surveillance report of January 15, 2007 (Ex. 31, TD21-EVM-07-04), I determined that Lockheed's distribution and Northrop's receipt and use of Management Reserve budget under the heading of "Risk Mitigation" was improper under Lockheed's JSF Command Media (as discussed below), because the budget was being used not to "mitigate risks" but instead to offset cost overruns resulting from Lockheed and Northrop's ongoing understatements of their official cost estimates. Legitimate budget transfers from Management Reserve are made in response to specific cost or schedule pressures that have arisen at the individual account level, and should be planned and implemented with input from the CAMs and tied to specific work plans or schedules. In its "Risk Mitigation" initiative, by contrast, Lockheed released a lump sum from Management Reserve and allocated it in a top-down manner, instructing Northrop to apply the budget over an eight-month period without any input from CAMs or link to specific new work plans and schedules. This top-down allocation usurped the authority of the CAMs to request such distributions in response to unforeseen contingencies.

60. Lockheed and Northrop's use of the term "Risk Mitigation" in connection with

the EAC4 budgeting process was misleading, because "Risk Mitigation" implies that the Management Reserve budget is being used for newly planned future work intended to mitigate risks that threaten the achievement of cost objectives. Lockheed's JSF Command Media required monthly assessments of trends which posed "pressures" that would cause actual costs to exceed the official EAC. Ex. 7, Lockheed JSF Process 5.0, ¶ 5.1.3. Corrective action plans (also known as "Return to Green" plans) were to be developed by CAMs at the control account level in order to lower future costs, either by implementing process or productivity improvements or by identifying other cost-cutting methods such as finding cheaper materials or cheaper suppliers. If corrective action plans were not implemented, or did not show a high probability of success, the CAMs were supposed to request an increase in the official EAC, which required approval by senior management at both Lockheed and Northrop. However, as described above, Lockheed and Northrop management often refused or failed to respond to EAC change requests. Instead of increasing the official EAC – which would show up as an increased cost overrun in Lockheed's cost performance reporting to the government – Lockheed and Northrop used Management Reserve to offset the cost overruns under the heading of "Risk Mitigation" and similar initiatives which gave the appearance that they were attempting to control costs. As I reported to Northrop management and to DCMA in my surveillance findings, these initiatives were illusory because in many cases the Northrop CAMs did not develop any specific corrective action plans or risk mitigation plans at the control account level. Instead, Lockheed approved Northrop's budget change requests, and Northrop used Management Reserve budget to cover up the cost overruns resulting from their systematic understatement of their official EAC numbers going back to 2005.

61. Exhibit 44 is a true and correct copy of an April 25, 2007 e-mail I sent to DCMA

EVMS monitors John Gamble, Keven Davis, and Robert Snyder, in which I reported that $2.94 million from Management Reserve had been improperly applied to the Materials Fulfillment account (WBS 3400) to pay for additional costs incurred in recovering from a "behind schedule" condition that was due to late engineering. According to Lockheed's JSF Command Media, Management Reserve is not to be used for cost increases resulting from "recovery to schedule." *See* Ex. 9, Lockheed JSF Process 7.0, ¶ 7.1.2.

62. The $9 million that Lockheed distributed to Northrop in connection with EAC4 "Risk Mitigation" was only a small portion of the Management Reserve budget that Lockheed and Northrop improperly used to cover Northrop's cost overruns. After I exposed and reported the improper nature of "Risk Mitigation" scheme, Lockheed and Northrop continued to use additional Management Reserve budget to conceal cost overruns, but described the transactions with different terminology. As I reported to Northrop management and to DCMA in my August 14, 2007 surveillance report (Ex. 38), TD21-EVM-07-68, Lockheed and Northrop developed the concept of "failed enablers" during the EAC4 budget planning exercise in late 2006. When the CAMs at Northrop submitted "most likely" EACs for their accounts, Lockheed and Northrop management reduced those EACs by a value for "EAC4 enablers," which was a euphemism for "Return to Green" plans intended to avoid cost pressures. However, my investigations and interviews of the CAMs revealed numerous instances in which no specific plans to avoid or reduce cost increases were ever developed. Subsequently, the nonexistent "enabler" would be declared a "failure," and Lockheed would issue budget from Management Reserve to cover the cost overrun. I observed and reported that Lockheed issued $5.7 million in Management Reserve to Northrop under Budget Change Request AV002407, in connection with Work Breakdown Structure (WBS) 1200. However, the accounts covered by my reviews represented only 20% of

the total budget for failed enablers on Northrop's WBS 1200.

63. I also observed and reported on Lockheed and Northrop's use of retroactive budgeting for "Change Curve Sunk Costs" as another means of misusing Management Reserve to reduce cumulative cost overruns. "Change Curve" means rework (*i.e.*, re-doing previously-completed work that was not done correctly), and Lockheed's JSF Command Media specifically prohibits the use of Management Reserve to cover costs associated with rework. *See* Ex. 9, ¶ 7.1.4.

64. Exhibit 43 is a true and correct copy of a March 27, 2007 e-mail I received from Robert Snyder, one of the DCMA resident monitors at Northrop. After reviewing my findings in several prior surveillance reports regarding Lockheed and Northrop's misuse of Management Reserve for retroactive budgeting at Northrop, Snyder concluded that these findings raised "real EVMS compliance issues" with regard to Lockheed, and said that he would take up the issue with his DCMA counterpart at Lockheed.

65. On April 3, 2007, in my surveillance report TD21-EVM-07-26 (Ex. 30), I reported to Northrop management and to DCMA that the current budget included an improper revision to provide additional budget from Management Reserve for work already performed. This meant that Northrop's current earned value, cost variances, and cost performance indices did not reflect true cost performance. I warned that these unauthorized changes would impair the integrity and accuracy of the budget baseline. On April 16, 2007, in my surveillance report TD21-EVM-07-31 (Ex. 32), I reported to Northrop management and to DCMA my discovery of additional examples of Lockheed's providing additional budget from Management Reserve to cover cost overruns for rework.

66. In June 2007, budget for "EAC4 Change Curve Sunk Costs" was improperly

added to work packages, which had the effect of retroactively changing the budgeted costs for work performed ("BCWP") or earned value. In this case, there was more rework at Northrop than planned, so Lockheed and Northrop applied the budget to offset cost overruns on past tasks. The effect was to create a false cost underrun in the current month, which misleadingly reduced the cumulative cost overruns reported in Northrop's cost performance data (and, in turn, in Lockheed's program-wide cost performance data). Based on my review of a limited sample of accounts, I identified the improper issuance of $3.174 million from Management Reserve by Lockheed to Northrop under the heading of "Change Curve Sunk Costs." I reported this finding to Northrop management and to DCMA in my August 14, 2007 surveillance report (Ex. 38), TD21-EVM-07-68.

67. Exhibit 52 is a true and correct copy of a November 29, 2006 letter from Randall Cohen, Contracting Officer for the government's Joint Strike Fighter Program Office ("JPO"), to Gary Lowe, Lockheed's Senior Manager for JSF Contracts. I discovered this letter in or around September 2007, after I was relieved of my surveillance duties on the JSF program and while I was searching for documents and evidence to support my ethics violation report to Northrop's corporate ethics office. Lockheed had proposed to relax the criteria for using Management Reserve so that it could be applied to offset cost variances in a broader variety of situations. Cohen rejected Lockheed's proposal, and reiterated JPO's position that "Management Reserve shall not be used to offset unfavorable variances," consistent with industry standards, Defense Department regulations, the SDD Contract, and Lockheed's JSF Command Media.

68. Based on my observations of the relationship between Management Reserve budget allocations and cost variance data, I began to suspect that Lockheed and Northrop were improperly boosting their Award Fees by manipulating cost performance data to make it appear

that they were doing a better job at controlling costs than they actually were. On two occasions, I asked Northrop Program Business Manager Jim Hoshstrasser whether there was any connection between cost variance numbers and Award Fees, and on both occasions he denied that there was any such connection. Northrop Cost Management executive Darrell Baker was present for one of these meetings with Hoshstrasser. Later, I reviewed the sections of the SDD Contract pertaining to Award Fees (*see* Ex. 14), as well as excerpts from Lockheed's "F-35 Lightning Communications Log," and came to believe that Hoshstrasser's statement was false, and that cost performance was indeed a significant factor in Award Fee evaluation.

69. Exhibit 53 is a true and correct copy of an excerpt from Lockheed's "F-35 Lightning II Communications Log," a newsletter that was distributed to all employees on the JSF program, for the week ending December 1, 2006. In the newsletter, Lockheed reported that the JPO Award Fee board had given it a "Very Good" rating and an overall score of 92% for Award Fee Period 10 (May 2006–October 2006). According to the SDD Contract, this rating and score meant that Lockheed was entitled to 92% of the money available in the Award Fee pool for Period 10. *See* Ex. 15, SDD Contract at H-9. I discovered this newsletter excerpt in Northrop's files in September 2007, shortly after Northrop removed me from surveillance duties on the F-35 program, and during the period that I was assembling evidence and documents in order to make a report of ethics violations to Northrop's corporate ethics officers.

70. Exhibit 54 is a true and correct copy of a May 31, 2007 letter from JPO Contracting Officer Randall Cohen to Lockheed Program Manager Dan Crowley, announcing the Award Fee Lockheed earned during Award Fee Period 11 (November 2006–April 2007). JPO evaluated Lockheed's performance against the "comprehensive" criteria as "exceptional," and awarded Lockheed 94% of the available award fee pool for the comprehensive criteria,

which amounted to over $92 million. JPO awarded Lockheed 100% of the available award fee for "Cost Control," which amounted to another $42 million. I discovered this letter in Northrop's files in September 2007, shortly after Northrop removed me from surveillance duties on the F-35 program, and during the period that I was assembling evidence and documents in order to make a report of ethics violations to Northrop's corporate ethics officers.

71. Exhibit 55 is a true and correct copy of a June 25, 2007 letter sent to all employees on the JSF program by Lockheed executives Dan Crowley and Tom Burbage, and Northrop's F-35 Program Manager Janis Pamiljans. The letter announced JPO's "exceptional" evaluation and award for Period 11, and noted that JPO had praised Lockheed and Northrop's "[e]xcellent progress" on "continuously improving cost performance." I discovered this letter in Northrop's files in September 2007, shortly after Northrop removed me from surveillance duties on the F-35 program, and during the period that I was assembling evidence and documents in order to make a report of ethics violations to Northrop's corporate ethics officers.

72. The DCMA conducted a detailed review of EVMS compliance on the JSF program and several other projects at Lockheed's main facility in Fort Worth, Texas on August 20–31, 2007. Prior to their visit to Fort Worth, I communicated with two members of the DCMA review team – Dave Kester, the director of the review team and a longstanding acquaintance of mine, and Keven Davis, the DCMA resident EVMS monitor with whom I had worked at Northrop. I provided Kester with copies of some of my surveillance reports from Northrop, which explained Lockheed's role in the misuse of Management Reserve, falsification of cost variance data, and other EVMS violations that took place at Northrop. I advised Kester and Davis how to search for evidence of similar violations within Lockheed's own portion of the JSF program.

73. DCMA completed its formal report on its Lockheed review on November 19, 2007. *See* Lockheed Appx. 2–46. DCMA's findings demonstrate that the review team followed my advice, uncovering patterns of Management Reserve abuse, cost report falsification, and other EVMS violations throughout the JSF program that were very similar to the violations by both Lockheed and Northrop I had previously uncovered at Northrop and reported to DCMA in my surveillance reports and communications with DCMA personnel. For example, DCMA observed – as I had previously reported at Northrop – that Lockheed's EVMS data was unreliable, and that Lockheed had made retroactive budget changes to cover past cost overruns and had improperly applied Management Reserve to distort its cost performance numbers. *See id.* pp. 5, 19.

74. To the extent that DCMA's findings addressed Lockheed's conduct with regard to its subcontractor Northrop, it did so based largely on the information I had previously provided to DCMA through my surveillance reports and my communications with DCMA personnel. However, one exception was DCMA's finding that Lockheed had adjusted "Northrop Grumman's" cost performance report for "CNI Work (WBS 1434) in order to conceal a $56 million cost overrun. *See* Lockheed Appx. p. 32. That finding referred to a different Northrop division, Northrop Grumman Information Systems, which built radar and communications systems for the F-35 and dealt with Lockheed under a different subcontract, unrelated to the one under which Northrop Grumman Integrated Systems / Air Combat Systems employed me to conduct EVMS monitoring.

75. None of my findings regarding Lockheed's involvement in the EVMS violations at Northrop, which I reported to DCMA in my surveillance reports and in my communications with DCMA personnel, had been the subject of any public disclosure at the time that I reported

them to DCMA.

76. In late August 2007, Northrop removed me from my surveillance duties on the JSF program and transferred me to a different project unrelated to the F-35. Northrop's ostensible explanation for my transfer was that I was needed on the other project, and Northrop wanted a younger and less experienced person to take over the surveillance duties on the JSF program so that she could gain experience with EVMS on a major development program. However, Darrell Baker (a high-level executive responsible for Cost Management across Northrop's Integrated System Western Region) told me privately that the real reason for the transfer was that Janis Pamiljans – Northrop's Vice President and F-35 Program Manager – did not like my surveillance findings and wanted me off the F-35 program so that my findings could be "closed out."

77. After my removal from JSF surveillance duties, I spent several weeks assembling evidence and documents in order to make an internal report of ethics violations to Northrop's corporate ethics officers. I met with Darrell Baker several times to discuss the EVMS violations, abuses of Management Reserve, cost report falsification, and Award Fee fraud that I had discovered. During one of those meetings, sometime in September 2007, Baker provided me with a copy of the May 2005 Memorandum of Agreement ("MOA") between Lockheed and Northrop. This was the first time I learned of the existence of the MOA. To the best of my knowledge, DCMA did not learn of the existence of the MOA until after I disclosed the MOA to the government in November 2011 (as discussed in more detail below).

78. I retired from Northrop in August 2008.

79. Exhibit 56 is a true and correct copy of a letter I sent on March 10, 2008 to Congressman Henry Waxman, Chair of the House Armed Services Committee. At the time I

sent this letter, I was still employed by Northrop but was no longer working on the JSF program.

80. Exhibit 57 is a true and correct copy of a letter I sent on October 25, 2011 to Senator John McCain, ranking member of the Senate Armed Services Committee.

81. Exhibit 58 is a true and correct copy of a letter (with attachments) that I sent on November 22, 2011 to Sen. McCain and also to the General Accounting Office ("GAO") "FraudNet" reporting hotline. With this letter, I included documentary evidence including copies of the May 2005 Memorandum of Agreement ("MOA") and the September 2006 "Risk Mitigation" chart in which Lockheed detailed the allocation of $97 million from Management Reserve, as well as documents showing that Lockheed received "excellent" and "exceptional" ratings for cost performance and earned about 95% of the highest possible award fees for the periods ending October 2006 and April 2007. To the best of my knowledge, this was the first time that anyone in the government was alerted to the existence of the MOA. Prior to my filing of this action, there had not been any public disclosure of the MOA or of the agreement between Lockheed and Northrop memorialized in it.

82. Exhibit 59 is a true and correct copy of follow-up e-mails I sent to GAO's FraudNet on November 30, 2011 and December 1, 2011, providing further documentation on Lockheed's cost performance reports and award fees, and enclosing a copy of DCMA's November 2007 report on its review of Lockheed; and a December 2, 2011 e-mail in which I forwarded the aforementioned GAO e-mails to Katrina McFarland, Assistant Secretary of Defense for Procurement.

83. Exhibits 60 and 61 are true and correct copies of follow-up letters I sent to GAO's FraudNet and to Assistant Secretary McFarland on December 4 and 5, 2011.

84. Exhibit 62 is a true and correct copy of a response e-mail I received from GAO's

FraudNet on January 11, 2012, which informed me that my report had been referred to the Department of Defense's Office of the Inspector General.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on February 23, 2016 in Westlake Village, California.

Paul J. Solomon