

ARMED SERVICES BOARD OF CONTRACT APPEALS

Appeal of -- )  
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EJB Facilities Services ) ASBCA No. 57112  
 )  
Under Contract No. N44255-05-D-5103 )

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OPINION BY ADMINISTRATIVE JUDGE CLARKE

EJB Facilities Services (appellant or EJB) appeals from the deemed denial of a claim for an additional \$1,904,062.50 over and above the \$2,480,044.24 allowed by the Navy in unilateral Modification No. A00028. We consider both entitlement and quantum. The Board issued an Order on Proof of Costs (POC). EJB submitted its Statement of Costs (SOC) and after various adjustments now seeks an additional \$1,826,801.25. We have jurisdiction pursuant to the Contract Disputes Act of 1978 (CDA), 41 U.S.C. §§ 7101-7109. We deny the appeal.

FINDINGS OF FACT

1. Contract No. N44255-05-D-5103 (5103) was awarded to EJB<sup>1</sup> on 1 August 2005 (supp. R4, tab 5). The contract amount was \$405,270,351.64 and required EJB to perform base operation support services at various Navy facilities in the Western Puget Sound area of Washington State (supp. R4, tab 7 at 6732-35). The contract included various “annexes” to be performed which covered all aspects of the required support services (supp. R4, tab 7).

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<sup>1</sup> EJB is a joint venture consisting of EMCOR, J&J Maintenance and BMAR Associates.

2. The period of performance provided for a phase-in period, base year (1 February 2006 to 30 September 2006), four option years and three award options ending on 30 September 2013 (supp. R4, tab 13 at 9028-35).<sup>2</sup>

3. Annex 1502000 (1502) – Facility Investment, required EJB to maintain the Central Monitoring System (CMS)/Direct Digital Control Systems (DDC) (CMS/DDC or simply CMS)<sup>3</sup> (supp. R4, tab 7 at 6854, ¶ 3.3.3), inspect and test the CMS/DDC (supp. R4, tab 7 at 6865, ¶ 3.4.4), and operate, monitor and respond to the CMS (supp. R4, tab 7 at 6867, ¶ 3.5.1). CMS operators were required to be capable of operating the CMS/DDC hardware/software and knowledgeable of HVAC systems monitored by the CMS/DDC system (supp. R4, tab 7 at 6854).

#### *MAXIMO Database*

4. Annex 0200000, ¶ 2.6.4, Government’s Computerized Maintenance Management Systems (CMMS) requires in part: “The Contractor shall maintain records stored in the Government’s CMMS current and accurate....CMMS currently in use is MAXIMO” (supp. R4, tab 7 at 6751). EJB uses MAXIMO as its computerized maintenance management system (tr. 3/169, 4/213-14). MAXIMO is a system to manage repair and maintenance of facilities and utilities (tr. 1/115). MAXIMO allows one to search by employee number and get a “general idea” of what an individual was doing on a particular day (tr. 1/125-26).

5. Scott Graudin is Director of Systems Development for EJB. He maintains software programs and the MAXIMO system. (Tr. 4/213-14) Mr. Graudin explained that MAXIMO keeps track of work orders, material costs, subcontractor costs, purchase orders, invoices, job plans, type of hours worked, equipment inventory and preventive maintenance (tr. 4/253-55).

6. Mr. Graudin testified that a work order will be assigned based on the problem described by the customer reporting the problem and the customer may not know what the actual problem is. This can cause the work order to be assigned an incorrect code. (Tr. 4/264-67)

#### *JD Edwards Database (JDE)*

7. JDE is the financial accounting system used by EJB (tr. 2/9, 3/170). The amount actually paid to a worker is recorded in JDE (tr. 2/12, 3/170). JDE does not

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<sup>2</sup> This schedule was put in place by Mod. P00005 after a delay due to a post-award protest (supp. R4, tab 13 at 9030; gov’t br. at 23).

<sup>3</sup> CMS was changed to Control System (CS) and then to Industrial Control System (ICS) – the terms are interchangeable (tr. 1/89, 143-44).

contain detailed information about what a worker was doing during the time for which he was paid (tr. 2/12).

### *CMS*

8. The CMS is described in Mod. P00037, dated 20 September 2007, (supp. R4, tab 25 at 11240) as follows:

The [CMS] at SUBASE, Bangor is a computerized system used by operation personnel to monitor and control a multitude of systems throughout the base including the HVAC system, water system, electrical distribution system, sewage collection system and parking lot lighting.

(Supp. R4, tab 25 at 11259) Witnesses described the CMS monitoring work as a “watch stand[er]”<sup>4</sup> situation where operators would monitor the CMS and when a problem arose they would contact the appropriate people to resolve the problem (tr. 3/14, 145, 221, 5/16). EJB assigned CMS personnel to other tasks as needed, a practice referred to as “cross[-]utilization” (tr. 2/153, 192, 3/12-14, 4/63, 172-74). For example, a DDC technician monitoring CMS could also be used to go out and make repairs (tr. 1/102-03). DDC technicians and other CMS personnel would also perform service calls (tr. 5/49).

9. In April 2009 EJB established a separate “Crew 5100” for CMS including four CMS Operators, three CMS Technicians, three DDC Technicians and one DDC System Administrator (supp. R4, tab 46, dep. ex. 110).

### *Bullets & Service Calls*

10. Work may also be ordered using “bullets.” A bullet is a work order request for work not otherwise identified in the contract but requiring the same trade expertise. (Tr. 1/133-35; supp. R4, tab 7 at 6847, ¶ 2.1.1.)

11. Work may also be covered by “service calls.” Service calls relate to work necessary to return a facility, structure, or piece of equipment to serviceable condition having a direct cost to the contractor of no more than \$5000 that is separately paid for by the Navy.

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<sup>4</sup> The transcript incorrectly says “watch standard” (tr. 3/14, 145).

## *Point Checks*

12. The contract required EJB to:

[I]nspect and test twenty-five (25) percent of sensing points and associated equipment (lines, etc.) annually (such that all points are covered in 4 years) to determine condition, operating capability, and verify electronically that the monitoring system represents the actual field readings.

(Supp. R4, tab 7 at 6865, ¶ 3.4.4) These “point checks” are performed by CMS and DDC technicians to verify that what they are seeing on their screens is accurate (tr. 5/82). Bilateral Mod. A00008, 30 June 2008, changed the annual requirement to perform point checks to 100% (supp. R4, tab 26 at 11437, 11731-32).

13. EJB did not complete 100% of the required point checks in fiscal year (FY) 09 (tr. 5/99; supp. R4, tab 40 at 12785). As a result of the uncompleted point checks in FY 09, the Navy deducted \$90,703.64 from EJB’s contract (supp. R4, tab 40 at 12986). EJB completed all point checks in all years of the contract after FY 09 (tr. 4/73).

## *Proposed Change (PC) 09-009*

14. On 6 November 2008, the Navy sent EJB Proposed Change (PC) 09-009 and requested a proposal (supp. R4, tab 14 at 9986). PC 09-009 changed the way EJB was required to run the CMS. Among other new requirements, CMS operators and technicians were required to be “dedicated” to the CMS, could no longer be “cross-utilized,” and had additional training requirements. A new dedicated “Control System Information Technology Manager” position was created to perform information technology duties. (Supp. R4, tab 14 at 9986-96)

15. Eric Lynch is the Navy industrial control system program manager (tr. 3/4-5). His role is to reduce the Navy’s energy consumption (tr. 3/6). He was the utilities manager for public works, Kitsap Naval Base from the early 2000’s through December 2011 (tr. 3/8). Mr. Lynch was the author of the “page changes” in PC 09-009 (tr. 3/11). Mr. Lynch testified that prior to PC 09-009, EJB was allowed to cross-utilize people operating the control system. They would answer service desk calls, and perform field technician duties. (Tr. 3/12-14) PC 09-009 changed that and created dedicated full time positions for IT manager, CS operators, and service desk personnel (tr. 3/14-15). There were also training requirements (tr. 3/38-40, 86) and changes to hardware and software and the replacement cycle (tr. 3/15). He described

PC 09-009 as a “paradigm shift from the way business had been done for almost 30 years” (tr. 3/32).

16. Mr. Lynch prepared the independent government estimate (IGE) of \$2,480,044.2 for PC 09-009 (tr. 3/19). He took the positions required by PC 09-009 and calculated the hours and applied wage rates to get the labor part of the IGE (tr. 3/21-23).

17. Rebecca Potter is a contract specialist for EJB (tr. 1/187). When Ms. Potter received PC 09-009 she formed a team to assist in estimating costs associated with the change (tr. 1/196). The team included Diane Greenfield-Lambert, HR, Steve Aarestad, IT manager, Dennis Dunlap, CS manager, and Larry Fuller, contracts manager (tr. 1/196-97). Ms. Potter negotiated PC 09-009 with Keith Goodsell and Mr. Lynch from the Navy (tr. 1/200).

*Business Clearance Memorandum (BCM)*

18. The Navy’s BCM documents the negotiation process between the Navy and EJB (supp. R4, tab 19 at 10461-75). Between 23 January 2009 and 10 July 2009, EJB submitted five proposals (*id.* at 10469-72).

19. The Navy’s IGE/negotiation objective was \$191,211.00 for FY 09 and \$572,208.31 per year for FY 10 – FY 13 for a total of \$2,480,044.24 (supp. R4, tab 19 at 10472). The BCM indicates that “[o]nly a limited cost analysis was performed as sufficient cost and pricing data was not provided by EJB and the proposal Rev 2, Rev 3, Rev 4, and Rev 5 were plagued with errors” (*id.* at 10468). The Navy “conducted price analys[is] on EJB’s original and revised proposals” (*id.* at 10469).

20. The BCM indicates that at the end of negotiations the government’s estimated hours were 43,614.5 and EJB’s were 43,627.6. The government’s dollar estimate was \$2,480,044.24 and EJB’s was \$3,535,871.04. (Supp. R4, tab 19 at 10472) Mr. Lynch was asked to explain why the government’s and EJB’s estimated hours were close but the dollars estimates were 43% apart. Mr. Lynch testified that EJB’s spreadsheets contained many mathematical errors and inappropriate mark-ups for tools and vehicles that the CS operators do not use. (Tr. 3/148-51) He testified that they had a lot of meetings with EJB where they would discuss the errors in EJB’s spreadsheets, EJB would submit new proposals with different errors and they never got together on the dollars (tr. 3/156-57).

21. The Navy concluded that it could not determine that EJB’s Rev 5 proposal was “fair and reasonable due to numerous errors, double charging, unsubstantiated

costs, etc.” (supp. R4, tab 19 at 10472). The BCM suggests “issuing a definitized unilateral change order for the proposed change” (*id.* at 10474).

*Mod. A00028*

22. By letter 24 July 2009 the Navy issued unilateral Mod. A00028 in the fixed-price amount of \$2,480,044.24 (supp. R4, tab 17 at 10137, 10139). The detailed changes in Mod. A00028 are extensive; the following is a summary of the changes with the major impacts (*id.* at 10139-40, 10145-47, 10150-55):

- Purchase software.
- IT hardware to be replaced every three years instead of every four years.
- Thirty work shifts including 6 Level III operators.
- Full time system administrator who performs no other function.
- Full time Control System IT manager.
- Control System Technicians shall perform no other functions than those associated with the Control System.
- Create Control System Operators, level I, II and III, each level having a greater degree of training and responsibility.<sup>5</sup>
- Replace 37 meters.

23. Ms. Potter explained that when EJB received Mod. A00028, they developed a spreadsheet that compared it with EJB’s proposal. Mod. A00028 did not account for shift differential for service desk and CS operators and labor rates were below those in EJB’s CBA. (Tr. 1/207-08; app. supp. R4, tab 37) For example, EJB proposed \$29.47<sup>6</sup> per hour for a service desk operator (day shift) and the Navy used a rate of \$23.39 per hour. Ms. Potter did not know where the Navy got their labor rate. (Tr. 1/213-14; app. supp. R4, tab 37 at 1 of 13)

24. Mr. Dennis Dunlap is utilities manager for EJB (tr. 5/11). He explained that the Navy’s requirement in PC 09-009 for a dedicated CS crew ended EJB’s ability to cross-utilize members of ICS Crew 5100. As a result they needed two more CS Technicians for ICS and more people to man the service desk and do point checks. (Tr. 5/30-35)

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<sup>5</sup> Mod. A00028 created three levels of CS Operators, Levels I, II and III. A level III Operator must be certified by the North American Electrical Reliability Corporation. (Tr. 1/86-87) These were brand new positions with different requirements from the previous contract requirements (tr. 1/181).

<sup>6</sup> These were estimates of the rate increase in the CBA that would have to be negotiated with the union as a result of Mod. A00028 (tr. 1/211, 2/201-02, 206).

25. Mr. Sergeson testified that the duties of a DDC technician changed after Mod. A00028. Before the modification, a DDC technician could repair any equipment, after, the DDC technician could only work on CS equipment. After the modification, if a DDC technician found a problem with HVAC equipment, another technician had to be called to do the repair. This means it was more expensive to complete repairs. (Tr. 1/103-05) Before Mod. A00028 the replacement cycle for IT equipment was four years; Mod. A00028 changed that to three years (tr. 1/113-14).

26. After Mod. A00028 the ICS crew (Crew 5100) increased to six CS operators, two control systems technicians, five DDC technicians, one lead DDC technician, one work scheduler and one IT manager (tr. 1/91).

### *EJB's Certified Claim & Appeal*

27. By letter dated 2 September 2009, EJB submitted a request for equitable adjustment (REA) seeking an additional \$1,904,062.53 above the \$2,480,044.24 allowed in Mod. A00028 (supp. R4, tab 21 at 11208-20). The Navy acknowledged EJB's REA (supp. R4, tab 24 at 11236-37). EJB submitted a certified claim to the Navy on 20 November 2009 for \$1,904,062.50 (supp. R4, tab 23 at 11230-35). The Navy did not issue a contracting officer's final decision on EJB's certified claim (answer ¶ 6). On 16 February 2010, EJB filed an appeal with the Board based on a deemed denial. The appeal was docketed as ASBCA No. 57112 on 17 February 2010.

### *EJB Claim Activities From November 2009 to May 2011*

28. Mr. Parker is an EMCOR employee and also general manager of EJB (tr. 3/166). In "early 2010, maybe late 2009" Mr. Parker pulled together a team "to start building what we needed as the supporting documentation for the claim" (tr. 3/180). The team consisted of Larry Fuller, Dennis Dunlap, Scott Graudin, Rebecca Potter, and possibly Pete Thomas (tr. 3/179). Mr. Parker assembled the team because "we knew we'd have to drive into our business records and talk to our subject matter experts to pull data together to kick off the calculations and identify the impact of Mod 28" (tr. 3/180).

29. On 5 April 2010, Mr. Parker sent an email to Dennis Graham, Larry Fuller, Scott Graudin, Mel Petrie and Dennis Dunlap asking them to:

[F]igure how best to track and account for all costs/expenses associated with the CS mod work [because] [t]here is a very good possibility...we will have to document and show all these costs in order for us to receive any compensation from the Govt for the work performed under the unilateral mod.

(Supp. R4, tab 46 at 14593) Mr. Graudin responded on 6 April 2010 stating that they should track old versus new equipment required by the modification, that general ledgers (GL) were currently in place for “PM, Service Calls and Bullets,” that they should create new work orders for drawing up new maintenance procedures, and they should create a new GL for training. Lastly he stated that “[t]he timekeeping system is capable of tracking wages for particular people and work orders so we should be good with respect to wages.” (Supp. R4, tab 46 at 14592-93)

30. In a 7 April 2010 email to Mr. Parker, Mr. Dunlap states, “[w]e need direction on what we are going to provide to Eric for free and what we want to claim. This will dictate what we need to track.” (Supp. R4, tab 46 at 14347) Mr. Parker responded, “[w]hat we need to sort out is what is under the unilateral scope and what is part of the older mod” (*id.*). Mr. Parker instructed his team “to look at cost before versus cost after so we could identify the true impacts of Mod 28” (tr. 3/180).

31. Ms. Potter testified that EJB created new GL account numbers and work orders to track costs associated with Mod. A00028 (tr. 2/150).

32. In April and May 2010, EJB began the process of accounting for the additional costs caused by Mod. A00028 (supp. R4, tab 46 at 14347, 14351-78, 14590-93, 14598, tab 40 at 12871-74, 12889, 12891-92<sup>7</sup>; tr. 3/179-80, 4/30-33, 36-37).

33. In a 30 July 2010 email from Mr. Larry Fuller, EJB contracts manager, to Ms. Potter, Mr. Fuller wrote:

One way to look at this is, if we were operating at a loss before 09-009 we would, theoretically, have to adjust for that in order to get an adjustment that keeps us in the same place financially.

(Supp. R4, tab 46 at 14595)

*Order on Proof of Costs (POC)*

34. On 19 May 2011, the Board issued an Order on POC. The order required EJB to submit a Statement of Costs (SOC) in schedule format and required the Navy to provide a formal response to the SOC. The POC warned, “[t]he lack of response to any cost item or component thereof claimed by appellant shall be deemed an admission.”

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<sup>7</sup> Many of the documents listed were not explained through testimony at the hearing and may or may not be taken in context.

*EJB's SOC*

35. On 5 July 2011, Mike Leonard, EMCOR, emailed Mr. Fuller, EMCOR, concerning the POC:

[T]he cost files need narrative explanation. [W]e are running out of time. I told [B]ob awhile back that this must take priority. Too much at stake. [W]e have a good case. [L]abor is 85% of our claim and JDE/Maximo files are solid backup. [L]abor alone gives us a claim for considerable money. [N]eed to make the case of new labor vs already paid for labor. [P]urchasing/ODCs of course important and we do have auditable files of actual costs. [S]ite overhead..forget that...with no deal on site overhead we can't claim.

(Supp. R4, tab 40 at 12972)

36. On 6 July 2011, Mr. Fuller forwarded Mr. Leonard's email to Mr. Parker stating in part:

Please see Mike's comments below. We will have to put together a narrative. Portraying this as some sort of "failure" fails to recognize the reality of this. We asked for a forensic accountant to do this. We got a promise instead that EMCOR would deliver the goods as the court is only interested in "provable" costs (i.e. from an accounting system, vice Maximo). We have most of that. We have ALWAYS had the information from Maximo. That is not the issue. Why this is so difficult to understand is a mystery to me.

(Supp. R4, tab 40 at 12971)<sup>8</sup>

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<sup>8</sup> Mr. Parker was not asked about this document during the hearing and neither Mr. Fuller nor Mr. Leonard was called as a witness.

37. Ms. Potter prepared EJB's initial SOC (tr. 2/5-6). Ms. Potter and Mr. Smith worked on the analysis (supp. R4, tab 40 at 14524). They used estimates to account for inaccuracies caused by cross-utilization:

CMS Operators performed system monitoring and alarm notification 95% of their labor hours and 5% service desk functions. CMS Technicians work represents 70% for CMS operations and 30% other services excluding CMS. DDC Technicians labor hours represent 10% for CMS and 90% for all other service work. One Work Scheduler was assigned to crew 5040 and was utilized for scheduling CMS maintenance requirements representing 30% of labor hours for a Work Scheduler.

(Supp. R4, tab 46 at 14530, 14545) By email dated 25 May 2012, Ms. Potter sent Mr. Parker a spreadsheet analysis of FY 08 CS costs prior to Mod. A00028 (supp. R4, tab 46 at 14524-27). Although the spreadsheet presenting the results of the analysis indicated that there was a total net profit of \$236,837.61, the actual numbers established that it was a loss for FY 08 (total costs \$947,785.12 less prior funding \$710,947.51) (*id.* at 14527). Mr. Parker recognized that it was a loss and notified Ms. Potter on 29 May 2012, “[y]ou show a net profit but in reality it is a net loss!” (*id.* at 14528). Ms. Potter agreed it showed a loss at the hearing (tr. 2/159-60, 179-80).<sup>9</sup> She also testified that they used estimates because there was no way of accurately tracking costs:

[The spreadsheet] shows these are just estimates because we had no way of accurately looking at our costs because we weren't tracking them and this was like a guesstimate of someone who was in the crew at the time, Tim Smith, he said, about this amount of time was spent doing this and this, and this is with the crew of the makeup, but it wasn't a dedicated crew.

(Tr. 2/176) With respect to profit, Mr. Parker testified:

Q What is EJB's actual profit rate over the years that you're aware of?

A I don't know exactly, but it's in the three percent range.

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<sup>9</sup> She also testified that there were various versions and some showed a profit and some showed a loss (tr. 2/158-59).

Q Over what portion of the contract does EJB measure their profitability?

A We only measure it one way. And that is over the full contract in aggregate.

(Tr. 3/174)

38. Ms. Potter testified that she tried to do a before and after Mod. A00028 comparison, but since the crews were not dedicated to the tasks before as they were after, it was not possible to identify the before costs (tr. 2/7-8, 13, 153, 159). She testified that they were able to track the costs after Mod. A00028 using the JDE accounting system and the MAXIMO work management systems (tr. 2/8-9).

39. Mr. Parker explained that EJB tried to support the claim based on a before and after analysis, but was not able to do so because they “couldn’t drill into the data after the fact to determine what were the actual costs before Mod 28” (tr. 3/181). He recalled seeing some before and after data developed by Ms. Potter, but the data was not reliable (tr. 3/182).

40. Mr. Parker made the decision to stop attempts at conducting a “before versus after” analysis after “spending months trying to look at how to do it” (tr. 4/29-30). The SOC’s submitted by EJB do not attempt to compare the costs of performing CS work before and after Mod. A00028 (tr. 2/7). EJB’s SOC adopts the approach of including all of its actual costs for CS work and deducts payments made by the Navy (tr. 2/55-57, 68).

41. EJB revised its SOC several times to replace projections with actual costs and correct errors (tr. 2/16-17). The first SOC was submitted on 11 July 2011 and indicated that Mod. A00028 resulted in “Net Additional Costs of \$4,147,627.14” (gov’t br., attach. 13; joint ex. 1). The Navy responded on 26 August 2011 presenting various challenges to EJB’s SOC (gov’t br., attach. 14; joint ex. 2). EJB submitted a revised SOC in October 2011 reducing the Net Additional Costs to \$4,114,312.71 (gov’t br., attach. 15; joint ex. 3). EJB submitted another revised SOC in December 2011 increasing the Net Additional Costs to \$5,111,618.12 (gov’t br., attach. 16; joint ex. 4). The Navy responded on 6 January 2012 again providing various challenges to EJB’s December 2011 SOC (gov’t br., attach. 17; joint ex. 5). EJB submitted a revised SOC in May 2012 reducing the Net Additional Costs to \$4,627,613.93 (gov’t br., attach. 18; joint ex. 6). In July 2012, Ms. Potter provided her draft SOC<sup>10</sup> and

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<sup>10</sup> The acronym “POC” is used by the Navy attorneys and various witnesses in the transcripts instead of SOC.

supporting data to Mr. James Williams, EMCOR (tr. 2/144-45). While Ms. Potter remained involved with the SOC, she testified that Mr. Williams became the primary author of the August SOC (tr. 2/145, 147-48). EJB submitted a revised SOC on 9 August 2012 with a “TOTAL CLAIM AMOUNT” of \$2,841,405.64 (app. supp. R4, tab 30; gov’t br., attach. 19). The Navy responded to the August SOC on 2 November 2012 with various challenges (app. supp. R4, tab 31; gov’t br., attach. 20). EJB replied on 10 December 2012 accepting some and disputing some of the Navy’s challenges (supp. R4, tab 46 at 14424-43). As a result, EJB reduced its claim to \$2,028,532.50 (tr. 2/30, 37, 70).

*The Navy’s Expert Report*

42. The Board accepted Eric Schaebe as the Navy’s expert in damages specializing in “calculating cost impacts and claim damages” (tr. 6/29, 33).

*Original Expert Report – Total Cost Method*

43. Before commencing his substantive analysis, Mr. Schaebe tracked the claim history and provided the following comment:

EJB’s Claim quantification suffers from conceptual, organizational, and formulaic errors. Throughout the various evolutions, EJB has not sufficiently and accurately explained its claim calculation, described what certain aspects of its calculation represent, or provided proper support for all of its claimed amounts. It is apparent that EJB has failed to take a critical look at its available data to identify and/or understand the nature and amount of any impact caused by Mod. 28.

(Supp. R4, tab 48 at 13096) In the substantive section of the expert report, Mr. Schaebe comments on EJB’s total cost claim approach.<sup>11</sup> Mr. Schaebe testified that he did not feel EJB’s total cost approach was “reliable” because EJB had the ability to perform a “before and after” analysis. (*Id.* at 13097-100) He testified that Mr. Graudin and Mr. Dunlap and their team were conducting such an analysis but did not complete it. He testified that he was able to conduct a before and after analysis using EJB data (tr. 7/28-29).

44. Mr. Schaebe first calculated a “correction” to EJB’s total cost claim. Mr. Schaebe identified errors that remained in EJB’s claim: “understatement of amounts paid by NAVFAC; application of inconsistent and erroneous logic regarding

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<sup>11</sup> We disregard Mr. Schaebe’s comments amounting to legal conclusions.

the allocation of non-productive time, overhead and indirect costs; inclusion of claimed costs that are unrelated to Mod. 28 and Control Systems; inclusion of unsupported site overhead rates; and use of aggressive assumptions regarding B&O Tax rates” (supp. R4, tab 48 at 13101). Mr. Schaeb concluded:

Due to the voluminous nature of these errors, detailed descriptions of specific adjustments or corrections to EJB’s Claim are provided in Appendix A. As detailed in Appendix A, the adjusted amount of EJB’s Claim using its Total Cost method is \$530,618. See Exhibit 6. This adjusted amount is partially corrected and other corrections and adjustments are still needed. This adjusted amount still uses the Total Cost method and suffers from all of its weaknesses. This calculation is merely an estimate of the overrun experienced on CS work after Mod. 28, and does nothing to attribute the overrun to Mod. 28.

(*Id.*)

*Original Expert Report – Modified Total Cost Method*

45. Next Mr. Schaeb endeavors to “convert” EJB’s total cost claim to a modified total cost claim (supp. R4, tab 48 at 13101-03). One of Mr. Schaeb’s main points was that EJB’s actual CS staffing prior to Mod. A00028 was:

- 1 DDC System Administrator (CS Administrator)
- 4 CM Operators
- 3 CM technicians
- 3 DDC Technicians

(Supp. R4, tab 48 at 13102) Mr. Schaeb concluded from the data that EJB’s Crew 5100 included the eleven personnel listed above, but that EJB’s prior funding credit did not include “at least” the 4 CM operators and they were “unaccounted for in EJB’s bid”:

The estimated cost of these 4 CM Operator positions is approximately \$333,000 per year or \$1,359,645 over the claim period. See Exhibit 8.

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Reducing EJB's corrected Total Cost method by this amount results in a negative claim value -\$829,027. See Exhibit 9.

(*Id.* at 13102-03) Mr. Schaeb performed what he called a "partial modified total cost" analysis and concluded that as a result of Mod. A00028, EJB experienced a loss of about \$800,000 (tr. 7/20-21; supp. R4, tab 48 at 13144). Mr. Schaeb testified that his loss amount was consistent with Ms. Potter's analysis when she looked at FY 08 and found a loss of \$300,000 per year (tr. 7/21). He characterized his analysis as "partial modified total cost" because he did not try to account for other costs that were EJB's responsibility such as inefficiencies or "extravagance costs" (tr. 7/23-24).

#### *Original Expert Report – "Before and After" Method*

46. The last analysis in the expert report is a before versus after analysis. Mr. Schaeb calculated an average weekly labor cost for "before" costs using a "stabilized" period six months before Mod. A00028 (supp. R4, tab 48 at 13104). The "after" Mod. A00028 costs were extracted from JDE and MAXIMO data bases. The report concludes, "[t]he comparison of EJB's labor costs before and after Mod. 28 shows that EJB did not actually suffer any financial harm above the compensation provided in Mod. 28" (*id.* at 13105). Mr. Schaeb testified that he could adjust his before and after calculation based on Mr. Smith's estimate, i.e., reduce his number of hours for CM operator by 5%, etc. (tr. 7/102).

#### EJB's Response to the Expert Report

47. In December 2012, in response to the expert report, EJB provided a new total claim number of \$2,028,532.57 (app. supp. R4, tab 33; gov't br., attach. 21; app. br. at 78-79). Mr. Parker testified that "many" of the challenges in the government's expert report were valid and they made corrections (tr. 3/185). That reduced the claim to \$2,028,532.57 (tr. 3/186).

48. EJB chose Mr. Parker as the primary witness explaining EJB's response to Mr. Schaeb's expert report. Mr. Parker is an EMCOR employee and also general manager of EJB. (Tr. 3/166) He is the senior representative of EJB (tr. 3/168). Mr. Parker testified that, following the receipt of Mr. Schaeb's report, EJB "studied Mr. Schaeb's report and looked for areas where he found that we made an error or could have improved. And we took those aboard and examined those and where we felt appropriate we made adjustments based on that." (Tr. 3/186) The team that reviewed Mr. Schaeb's report included, at least, Messrs. Parker, Fuller, Smith, Dunlap, Aarestad and Ms. Potter (tr. 3/187-88).

49. Mr. Parker produced AEX-1<sup>12</sup> at the hearing. EJB reviewed Mr. Schaeb's expert report and presented the results of that review in AEX-1 (AEX-1, tab 1; tr. 4/187, 193).<sup>13</sup> Mr. Parker testified that "many" of the challenges in the government's expert report were valid and they made corrections (tr. 3/185). EJB reduced the claim value to \$1,826,801.25 by replacing projected costs with actual costs and correcting additional errors discovered by Mr. Schaeb (tr. 3/183-84, 186, 195). In its post-hearing brief EJB acknowledges another error and reduces its claim to \$1,824,113 (app. br. at 88).

50. Mr. Schaeb's expert report includes Exhibits A1 through A35.2A, each of which represents a challenge to a claim component (supp. R4, tab 48 at 13279-385). AEX-1 addresses the majority of these exhibits and the Schaeb proposed adjustments in them. Mr. Parker testified about AEX-1. Mr. Parker did not agree with the exact number in exhibit A3, "Replace FY12 Proj with Actual Data," however, he agreed with the concept of replacing projections with actual costs and EJB "re-ran the numbers" and "came up with a final number that was similar to this but not exactly the same" – Navy's \$151,748 and EJB's \$149,603.40 – EJB's number is in the \$1,826,801.25 (tr. 3/195; AEX-1, tab 1). Mr. Parker agreed with Mr. Schaeb's Exhibit A4,<sup>14</sup> "Addition of CS IT Manager for FY12" (+\$66,642)<sup>15</sup> (tr. 3/195-96). Mr. Parker does not agree with Mr. Schaeb's Exhibit A5,<sup>16</sup> "Removal of Non-CS Labor Costs" (-\$285,746) (supp. R4, tab 44 at 13289) stating that the work actually was CS work (tr. 3/197-98).<sup>17</sup> EJB looked at many of the cost codes "with the biggest values associated with them" and found that the majority of the work was related to ICS.<sup>18</sup> Mr. Parker was asked about Mr. Schaeb's report, Exhibit A5, "Removal of Non-CS Labor Costs by Source," Exhibit A5.2 Cost Code 0200290, EJB Internal Work Orders (supp. R4, tab 44 at 13290, 13292). Mr. Parker explained that the name was misleading and that he had Mr. Smith, his subject matter expert, look at the details and concluded that there was "productive work" in the overhead Cost Codes that was directly related to ICS (tr. 4/138-40).

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<sup>12</sup> AEX-1 is located in Volume I of Mr. Schaeb's Witness Notebook.

<sup>13</sup> Both parties, especially the Navy, delve into the details of how the parties got to their final position reflected primarily in AEX-1. We do not replicate that analysis in this decision. The dispute is now defined by AEX-1 and what occurred thereafter and that is what we deal with.

<sup>14</sup> The transcript incorrectly refers to this as "Exhibit 85" (tr. 3/197).

<sup>15</sup> This is shown as a negative number in Exhibit A4 but negative numbers are additions and positive numbers are reductions in EJB's claim according to the Schaeb report (supp. R4, tab 44 at 13279).

<sup>16</sup> The transcript incorrectly refers to this as "Exhibit 84" (tr. 3/195).

<sup>17</sup> This testimony was hearsay because Mr. Parker relied on his "subject matter experts" for this testimony (tr. 3/198).

<sup>18</sup> Mr. Parker agreed that some of the work orders were not related to ICS (tr. 4/111).

51. Mr. Parker does not agree with Mr. Schaeb's Exhibit A6, "Removal of Non-Productive Cost Allocated to Bullets and Service Calls" (-\$268,752) (supp. R4, tab 44 at 13295) because he believes that these costs were included in the credit given to the Navy in EJB's SOC (tr. 3/198-99). Mr. Parker explained EJB disagreed with Mr. Schaeb because "we'd already made that adjustment in our statement of cost when we credited the Navy back for bullets and service calls under less prior funding" (tr. 4/143). The prior funding hourly rate credited back to the Navy was fully loaded and included non-productive time (tr. 4/143-44). Mr. Parker does not agree with Mr. Schaeb's Exhibit A7, "Removal of Non-Productive Costs Allocated to Non-CS Costs" (-\$55,242) (supp. R4, tab 44 at 13299) because these costs were related to CS work (tr. 3/199). Mr. Parker explained that EJB disagreed with Mr. Schaeb because, "the trouble we had there with the Schaeb report goes back to what we saw in Exhibit 5, where we believe the Schaeb report was not correct in its analysis of the work that is categorized as non-CS work" (tr. 4/144). Mr. Parker explained, "[s]o if you came through that same analysis into A7, you'll see that the title here is removal of non-productive cost allocation, non-CS cost. Well if the CS cost analysis was wrong, then obviously this analysis will be wrong as well." (Tr. 4/144-45)

52. Mr. Parker agreed with Mr. Schaeb's Exhibit A8, "Correction of FY13 Projection Error for CS Operators OT" (-\$229,406)<sup>19</sup> (tr. 3/199-200; supp. R4, tab 44 at 13303). Mr. Parker did not agree with Mr. Schaeb's Exhibit A9, "Replacement of FY13 Projections" (-\$416,132) (supp. R4, tab 44 at 13305-06) because data from Exhibit A5 was in Exhibit A9 and Mr. Schaeb was wrong to remove holiday overtime for DDT Techs and CS Techs because they are sometimes called in on holidays (tr. 3/201-03). EJB went through Sheet A9.1 and concluded that Mr. Schaeb did not fully understand "how we do the business and what the CBA requirements he's picked out to require us to do in terms of pay, labor and overtime" (tr. 4/116-19; supp. R4, tab 44 at 13306). Mr. Parker testified that AEX-1, A9 "had various mistakes, or assumptions, or wrong conclusions in it" so EJB decided to use its projections (tr. 4/120). Mr. Parker agreed with Mr. Schaeb's Exhibit A12,<sup>20</sup> "Claimed Hardware Purchased Via Bullets" (-\$25,924) (tr. 3/204-05; supp. R4, tab 44 at 13320). Mr. Parker agreed with Mr. Schaeb's Exhibit A13, "Hardware – FY12 Actuals in Place of FY12 Projections" (-\$21,275) (tr. 3/205; supp. R4, tab 44 at 13325). Mr. Parker agreed with Mr. Schaeb's Exhibit A14, "Software Purchased Via Bullets" (-\$13,817) (tr. 3/205-06; supp. R4, tab 44 at 13327). Mr. Parker agreed with Mr. Schaeb's Exhibit A15, "Replacing FY12 Software Projections with Actual Purchases" (-\$38,390) (tr. 3/206-07; supp. R4, tab 44 at 13332). Mr. Parker agreed

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<sup>19</sup> EJB removed this amount in their December 2012 response to the Navy's challenges (supp. R4, tab 44 at 13303).

<sup>20</sup> Exhibit A10 was left blank and A11 was a summary of non-labor adjustments (supp. R4, tab 44 at 13317-18).

with Mr. Schaeb's Exhibit A16, "Software Maintenance (ATS Automation) Claim Adjustments" (-\$77,972) (tr. 3/207;<sup>21</sup> supp. R4, tab 44 at 13333). Mr. Parker agreed with Mr. Schaeb's Exhibit A17, "Software Maintenance (Control Contractors) Purchased Via Service Calls, Bullets, etc." (-\$26,213)<sup>22</sup> (tr. 3/208-09; supp. R4, tab 44 at 13339).

53. Mr. Parker did not agree with Mr. Schaeb's Exhibit A18, "Adjustments for Wave Cable – Account 360-519429" (-\$5,947) (supp. R4, tab 44 at 13341) because the "portal was required and still is required to operate the ICS system" (tr. 3/209-10). Mr. Parker agreed with Mr. Schaeb's Exhibit A19, "Adjustments for Wave Cable – For Accounts Other Than 360-519429, Unrelated to CS" (-\$13,824) (tr. 3/209, 211; supp. R4, tab 44 at 13344). Mr. Aarestad testified about AEX-1, A18, SW Maintenance (Wave Cable) – Acct 360-519429, and A19, SW Maintenance (Wave Cable) – Other Non-CS Internet. There was a mistake in the original claim. EJB's claim included costs for four wave cables, but only one was related to the CS effort. The other wave cable costs should not have been included. (Tr. 5/145-46) Mr. Aarestad explained how he arrived at the numbers on A18 and A19. He used actuals for the CS wave cable and a projection through 30 September 2013. The adjustment for A19 was included in A18. (Tr. 5/146-47) He agreed that there were still pre-modification A00028 costs that should have been excluded (tr. 5/153).

54. Mr. Parker agreed with Mr. Schaeb's Exhibit A23,<sup>23</sup> "Projected Labor Included as Training Costs" (-\$17,404) (tr. 3/213; supp. R4, tab 44 at 13353). Mr. Parker agreed with Mr. Schaeb's Exhibit A24, "Fuel Costs Claimed in Supply Annex Claim and Fuel Costs Included Twice in Mod. 28 Claim" (-\$2,171) (tr. 3/213; supp. R4, tab 44 at 13355).<sup>24</sup>

55. Mr. Parker was asked about Exhibit A25, "Correction to Fuel Projections," where Mr. Schaeb recommended a reduction of \$30,296. EJB's response was "disagree with Schaeb, corrected formula error/re-ran analysis" and increased its

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<sup>21</sup> EJB's number was "a little bit less" (tr. 3/207).

<sup>22</sup> EJB identified another error that resulted in an upward adjustment for Control Contractors of approximately \$100,000 (tr. 3/208).

<sup>23</sup> Mr. Parker did not testify about Exhibits A20, "Outside Services (Sound Energy) Purchased Via Service Calls" (-\$21,393) (supp. R4, tab 44 at 13347), A21, "Training Costs Purchased Via Bullets" (-\$15,286) (supp. R4, tab 44 at 13349) or A22, "Training Formula Error – Double Counting" (-\$8,394) (supp. R4, tab 44 at 13351).

<sup>24</sup> Mr. Parker did not testify about Exhibits A25, "Correction to Fuel Projections" (-\$30,296) (supp. R4, tab 44 at 13358), A26, "Fuel Allocated to Bullets and Service Calls" (-\$5,355) (supp. R4, tab 44 at 13360), or A27, "Inclusion of Office Supplies in Tools & Equipment" (-\$763) (supp. R4, tab 44 at 13363).

deduction from \$1,918.94 to \$9,168.65. Mr. Parker testified that “Mr. Schaab correctly identified an error in our program” but when they corrected the error and re-ran the program they calculated \$9,168.65 (tr. 4/150-51; AEX-1, tab 1). Mr. Parker was asked about Exhibit A26, Fuel Allocation to Bullets and Service Calls, and why EJB stated that the correction for A26 was included in the \$9,168.65. He testified, “I can’t explain that to you” (tr. 4/156). Mr. Parker was asked about Exhibit A32, “Funding for Post-Mod 28 Point Check Modifications,” where Mr. Schaab recommended a reduction of \$237,040 (supp. R4, tab 44 at 13368; AEX-1, tab 1). EJB increased its reduction from \$69,579.07 to \$80,110.13 (AEX-1, tab 1). Mr. Parker explained that they looked at each modification listed in Mr. Schaab’s report and when they looked at Mod. PC 10-036, A00051, DDC technician, they disagreed that the ICS crew would do \$152,000 worth of the work (tr. 4/158-59).

56. Mr. Parker did not testify about the following exhibits (EJB’s position on AEX-1 is in parenthesis): A20 (agrees), A21 (agrees), A22 (agrees), A26 (disagrees), A27 (disagrees), A31 (agrees), A33 (disagrees), A34 (agrees) and A35 (agrees for FY12, disagrees for FY13) (AEX-1, tab 1).

57. Mr. Parker testified about Mr. Schaab’s expert report. Concerning Exhibit 7, Staffing Level Prior to Mod. A00028: Weekly Hours Recorded to JD Edwards, Mr. Parker testified that looking at the weekly JD Edwards data you could not tell if a person was working on the control system or not because JD Edwards shows labor costs not where the employee actually was working (tr. 3/191-92). Mr. Parker testified that Mr. Schaab’s assumption that 11 people worked full time on ICS was incorrect because before Mod. A00028 EJB would cross-utilize its employees in multiple annexes (tr. 4/172-74).

58. AEX-1 includes four adjustments made by EJB that were not in the expert report. Mr. Parker explained that they found that they had not included payments to ACCO, a subcontractor supporting ICS, and they added \$36,099.87 “adjusted for ACCO” in “EJB adjustments” number 3 near the bottom of AEX-1 (AEX-1, tab 1; tr. 4/167-68). EJB adjustment number 4 likewise added \$102,939.47 to the claim based on payments they had to make to CCI, another subcontractor supporting ICS (tr. 4/169).

### The Navy’s Response to EJB’s AEX-1

59. The hearing was continued before the government’s expert, Mr. Schaab, testified. The hearing was reconvened over two months later on 31 July 2013 to take Mr. Schaab’s testimony. In the interim, Mr. Schaab revised two of his calculations, total cost and “Before versus After,” in his expert report based on what he heard during the trial, i.e., adding in some work he had considered non-CS work (gov’t br. at 112,

114). These changes are included in blue pages added to the expert report during the recess (tr. 6/112; supp. R4, tab 48 at 13261.001-33, tab 44, app'x A at 13262-85).

60. Mr. Schaebe explained the relationship between MAXIMO and JD Edwards data bases:

But we can see that if you want to know the fully-burdened costs, you need to use the JD Edwards data, but if you really want to get some detail into what somebody's doing, you would use the MAXIMO data.

(Tr. 6/64) Mr. Schaebe stated that EJB's proof of costs used only the JD Edwards data that provided fully burdened labor costs, but lacks details of what the actual work was that is in MAXIMO (tr. 6/64). Mr. Schaebe testified that he was able to search MAXIMO data, both before and after Mod. A00028, and that the data fields were the same (tr. 6/67).

61. Mr. Schaebe testified that EJB's data was "the most detailed I've ever seen" (tr. 6/71). He testified that EJB could perform a "before and after" Mod. A00028 analysis with the MAXIMO and JD Edwards data (tr. 6/75). A before and after analysis is a type of "measured mile" analysis where the cost before and after the impact are measured and the difference is attributed to the impact (tr. 6/76). Mr. Schaebe testified that EJB, Mr. Graudin, Mr. Dunlap and Ms. Potter, worked on a before and after analysis (tr. 6/109-11). EJB's pre-August 2012 statement of costs included an attempt at a before and after analysis. However, in its August 2012 statement of costs EJB employed the "classic total cost method." (Tr. 6/111-12)

#### *Revised Total Costs Expert Analysis*

62. Mr. Schaebe performed a corrected total cost analysis that is documented in his expert report:

As detailed in Appendix A, the adjusted amount of EJB's Claim using its Total Cost method is \$530,618. See Exhibit 6. This adjusted amount is partially corrected and other corrections and adjustments are still needed. This adjusted amount still uses the Total Cost method and suffers from all of its weaknesses. This calculation is merely an estimate of the overrun experienced on CS work after Mod. 28, and does nothing to attribute the overrun to Mod. 28.

(Supp. R4, tab 48 at 13101) Mr. Schaebe explained what he did:

Q Turning then back to Exhibit 6, at G013140, the figure that's presented on that page, \$530,618, is described as the adjusted EJB claim amount. Can you explain, please, what you mean by that - - using that description?

A Well, at the time the report was issued, this would be EJB's claim using its total cost method, once the errors identified in Appendix [A] were corrected. So this is not necessarily my opinion of the cost impact of Mod 28. This is just showing, [h]ere's what a correct total cost method would look like. The number would be - - at the time was [\$]530,618. We now - - if we look at GX-172, that's revised slightly upward. If we look at the Schaeb adjustment revised number, that number would now be \$562,493.

....

Q So does that represent an amount that is - - after the adjustments to the total cost method, is that an amount that is due to EJB?

A Not in my opinion, no, because again, this is not the measure of the cost impact of Mod 28. This is just what the overrun is when using a total cost method.

(Tr. 6/181-82)

63. Mr. Schaeb developed GX-172<sup>25</sup> to summarize the current state of his disagreement with EJB's total cost claim (GX-172, tab 9; tr. 6/119). Page 7 of GX-172 lists the "bulk of the disagreement" (tr. 6/127). Mr. Schaeb explained each of the entries on GX-172, page 7:

- A5rev. Removal of Overhead and Other Productive Work. After adding back in CS work, the majority of the adjustment relates to Mr. Blankenship (tr. 6/129). EJB took out \$64,497 for Mr. Blankenship (tr. 6/131; GX-172, tab 9 at 7). Mr. Schaeb identified \$104,000 before mark-ups to remove for Mr. Blankenship (tr. 6/131; supp. R4, tab 48 at 13294.002). Mr. Parker and Ms. Potter agreed that costs for Mr. Blankenship should be removed (tr. 2/39,

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<sup>25</sup> GX entries are all located in Volume I of Mr. Schaeb's Witness Notebook.

139-40, 4/113-14). EJB removed Mr. Blankenship on 21 March 2011 (tr. 6/136, 138). Mr. Schaeb was able to use MAXIMO labor data to identify that Mr. Blankenship did no more CS work after 24 November 2010 (tr. 6/135-38, 140-41; GX-161b, tab 8 at 5). The initial Schaeb amount of \$285,746 is reduced to \$222,019 (GX-172, tab 9 at 7). The difference between the adjusted Schaeb amount (\$222,019) and EJB's amount (\$64,497) is \$157,522 (*id.*).

- A6 Allocation of Non-Productive [Time] to Bullets & Service Calls. EJB removed the actual cost of performing bullets and service calls but failed to allocate some burden of non-productive time (holiday and vacation) to that revenue (tr. 6/142-46). The reduction is \$268,752 (GX-172, tab 9 at 7). EJB did not agree with any of this amount. Mr. Parker testified that he believed that this credit was already included “in our unit rates which we gave the Navy credit for in our Statement of Costs under the Less Prior Funding line for various in-service calls” (tr. 3/199). Mr. Schaeb explained, using EJB's electronic data, that EJB did not use “full[y] loaded” rates and that Mr. Parker was mistaken (tr. 6/142-46).
- A7rev. Allocation of Non-Productive [Time] to Overhead and Other. This is the same concept as A6 above, EJB failed to allocate non-productive time to overhead and other (tr. 6/150-51). Mr. Parker testified that Mr. Schaeb excluded CMS work. The initial Schaeb amount of \$55,242 is reduced to \$42,749 to account for excluded CMS work (GX-172, tab 9 at 7). EJB does not agree with any of this revised amount.
- A9rev. Replacement of FY 13 Proj with FY 12 Actuals. EJB's FY 13 projections did not reflect the actual staffing or work on holidays in FY 12. Therefore, Mr. Schaeb believed that FY 12 actuals were a more accurate predictor of FY 13 costs (tr. 6/153-55). The initial Schaeb amount of \$416,132 is reduced to \$392,269 (GX-172, tab 9 at 7). EJB does not agree with any of this revised amount.
- A27 Inclusion of Office Supplies in Tools & Equipment. Mr. Schaeb determined from looking at invoices that the same two ladders were included twice in EJB's claim (tr. 6/158). The reduction is \$763 (GX-172, tab 9 at 7).
- A32 Funding for Post-Mod. A00028 Point Check Modifications. This is a credit adjustment where Mr. Schaeb and EJB do not agree on the amount (tr. 6/159). Both agree that the modification adding point checks after Mod. A00028 have to come out of the claim amounts (tr. 6/159). Mr. Schaeb took the dollar amounts directly off of the modifications that include all mark-ups. EJB did not include mark-ups in its amount and there were other

formula errors. (Tr. 6/163-64) Additionally, EJB was taking a credit for a previous \$90,703.64 withholding for non-performance that Mr. Schaeb thought was inappropriate (tr. 6/166). The reduction is \$237,040 minus EJB's final adjustment of \$80,110 or \$156,930 (GX-172, tab 9 at 7).

- GX-152 Prior Funding Mods. – Priced at FY 09 Rates to Account for Wage Adj. EJB added a \$413,676 credit for PC 08-100 by re-pricing at FY 09 rates to account for rate increases (tr. 6/170). Mr. Schaeb thinks that is reasonable (*id.*). However EJB failed to add a similar credit for other modifications, PC 07-093, PC 08-068 and PC 08-100 (*id.*). Mr. Schaeb repriced these modifications at FY 09 rates to account for the rate increases (tr. 6/171). The Schaeb revised amount is \$52,691 (GX-172, tab 9 at 7).
- GX-152 CCI Adj based upon PC 08-068/contract.<sup>26</sup> Mr. Schaeb disagrees with EJB's \$102,939 addition to the claim because EJB's proof of costs already contains costs for FY 12 and FY 13 for CCI and there is no support for additional costs (GX-172, tab 9 at 7; tr. 6/176)

#### *Modified Total Cost Expert Analysis*

64. Mr. Schaeb performed a modified total cost analysis.<sup>27</sup> He determined that the actual CS staffing six months before Mod. A00028 was:

- 1 DDC System Administrator (CS Administrator)
- 4 CM Operators
- 3 CM Technicians
- 3 DDC Technicians

(Supp. R4, tab 48 at 13102) Mr. Schaeb found that EJB had not included the 4 CM Operators in its prior funding credit in its claim:

As apparent from the above details and the table below, EJB's Claim [for] prior funding credit failed to consider at least 4 CM Operators that were used by EJB to perform CS work and were unaccounted for in EJB's bid. The estimated cost of these 4 CM Operator positions is

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<sup>26</sup> EJB added four "adjustments" at the bottom of AEX-1 that Mr. Schaeb had not seen until the trial. He does not disagree with the first three but takes issue with the fourth relating to PC 08-068 (tr. 6/173-74)

<sup>27</sup> This calculation was not revised as a result of the hearing.

approximately \$333,000 per year or \$1,359,645 over the claim period. See Exhibit 8.

(Supp. R4, tab 48 at 13102) However, during the hearing, Mr. Schaeb looked at EJB's initial bid and found that there were five central monitor operators included in EJB's bid (tr. 7/8). Mr. Schaeb testified that he understood these CM Operators were not performing CM work based on Ms. Potter's and Mr. Parker's testimony (*id.*).<sup>28</sup> Mr. Schaeb characterized the situation as a "bid bust" or mistake in bid (tr. 6/190-91). Mr. Schaeb reduced the corrected total cost claim amount of \$530,618<sup>29</sup> by the cost of the omitted CM Operators, \$1,359,645 and concluded that the modified total cost claim value was a negative \$829,027<sup>30</sup> (supp. R4, tab 48 at 13102-03).

#### *Revised Before and After Expert Analysis*

65. Mr. Schaeb performed a before and after analysis and reports the results in his expert report (tr. 6/77; supp. R4, tab 48 at 13105). Mr. Schaeb provided a lengthy detailed explanation of his before and after analysis to include adjustments for bullets and cross-utilization (tr. 6/76-109). Mr. Schaeb adjusted his before and after analysis based on the testimony he heard during the first phase of the hearing (tr. 6/112). The revisions are reflected in the blue pages of the final version of the report (tr. 6/112; supp. R4, tab 48 at 13261.001-033). The revisions resulted in a larger negative number because the before costs were higher than the after costs (tr. 6/112-13). He found that the actual cost of labor<sup>31</sup> after Mod. A00028, \$1,640,395, was fully compensated by Mod. A00028's \$1,723,502 (tr. 6/109; supp. R4, tab 48 at 13261.001).

#### *Revised Point Checks – Expert analysis*

66. Appendix B of Mr. Schaeb's expert report is an analysis relating to point checks. Again, blue pages in Appendix B indicate the same adjustments made in Appendix A in the calculations based on hearing testimony. (Tr. 6/114) Mr. Schaeb testified he preferred to remove point checks from the calculation because they "kind of cloud[] the issue and the comparison of the periods" but since EJB included point checks, Mr. Schaeb included them in an alternative before and after analysis

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<sup>28</sup> The trial judge questioned the witness's recollection of Ms. Potter's testimony, however, Mr. Katz stipulated that the characterization of Ms. Potter's testimony was accurate (tr. 7/13). The testimony is that certain utility "CMS operators" were actually boiler operators (tr. 2/163-65).

<sup>29</sup> The \$530,618 was revised upwards to \$562,493 when Mr. Schaeb revised his total cost claim correction (tr. 6/181-82; finding 62).

<sup>30</sup> This would be -\$797,152 using the revised figure of \$562,493.

<sup>31</sup> Labor was the biggest cost associated with CS monitoring claim (tr. 6/84).

(tr. 6/114-15). The revised analysis resulted in a larger negative value because the costs incurred before Mod. A00028 were higher than after (tr. 6/115-16).

## DECISION

### *Contentions of the Parties*

EJB first attempted to calculate its claim directly using the “before and after” method. It now argues that it is unable to perform a “before and after” analysis to determine the cost impact of Mod. A00028 because, due to its practice of cross-utilization of its workers and other inaccuracies, its accounting systems (MAXIMO and JDE) cannot accurately identify what “before” work was actually being performed. Therefore, EJB argues that it is left with the modified total cost method as the only way of quantifying the cost impact of Mod. A00028. EJB argues that it uses the modified total cost approach because (1) there is no evidence of inefficiencies in its performance that were its responsibility, and (2) the Navy previously deducted an amount for EJB’s failure to complete point checks in FY 09. (App. br. at 95) EJB argues that it satisfies each of the four elements required for utilization of the modified total cost method (app. br. at 96-102). EJB claims \$1,826,801.25.

The Navy’s expert, Mr. Schaeb, challenges the importance of “cross-utilization” and argues that EJB’s accounting data bases, MAXIMO and JDE, are capable of accurately supporting a “before and after” analysis. The Navy argues that EJB does not satisfy any of the four elements required for utilization of the total cost method. (Gov’t br. at 151-70) Mr. Schaeb’s expert report presents three calculations: (1) a corrected total cost claim; (2) a modified total cost claim; and (3) a “before and after” analysis. For the reasons stated in the report, Mr. Schaeb concludes that EJB was adequately compensated for the additional work caused by Mod. A00028 by the modification’s unilateral price of \$2,480,044.24.

### *Preliminary Matters*

As stated in contentions of the parties above, EJB characterizes its quantification analysis as a “modified total cost method.” We disagree. EJB calculated its total cost for CMS work and took no deductions other than Navy payments (findings 40, 43) – this is a classic total cost method. We decline EJB’s invitation to the Board to make needed adjustments to its total cost claim through use of a jury verdict.

EJB argues that since the Navy did not challenge its use of the so-called modified total cost method in its reply to EJB’s SOC, the Navy admitted that the method is appropriate (app. br. at 95-96). This argument is based on the standard

language in the Board's Order on POC that reads, "[t]he lack of response to any cost item or component thereof claimed by appellant shall be deemed an admission" (finding 34). EJB relies on *Safeco Insurance Co. of America*, ASBCA No. 52107, 03-2 BCA ¶ 32,341, where the Board stated that the government's failure to object to the use of the total cost method in its response to appellant's SOC "would seemingly qualify as an admission that the method was appropriate." *Id.* at 160,022. However, as the Navy correctly points out, in *Safeco* the contracting officer had agreed to the total cost method and the Board's language is both *dicta* and equivocal (gov't br. at 158-60). It is also apparent to us that the total cost method is not a "cost item or component thereof" but rather a methodology of quantification and, therefore, not within the scope of the "deemed an admission" provision of the Board's order.

### *Cross-Utilization*

The "before and after" analysis was complicated by EJB's cross-utilization of CMS workers. Cross-utilization is the terminology used by EJB to describe using its CMS workers to do work that is not part of their primary CMS job. An example of cross-utilization would be when CMS personnel would be used to perform work other than CMS monitoring such as going out to the facilities to check and possibly repair equipment, answer phone calls from customers and perform service calls (findings 8, 15, 24). According to EJB's witnesses, the problem caused by cross-utilization was that EJB's work accounting system, MAXIMO, was not able to accurately track what work individual workers were actually performing (findings 6, 38, 39).

Ms. Potter testified that after Mod. A00028 she could use MAXIMO and JDE data to accurately account for "after" costs (finding 38). Mr. Parker provided similar testimony (finding 39). Ms. Potter's FY 08 "before" cost analysis used estimates to account for inaccuracies in the MAXIMO data caused by cross-utilization of the CMS crew. They estimated:

- CMS Operators – 95% CMS work / 5% service desk work
- CMS Technicians – 70% CMS work / 30% other service work
- DDC Technicians – 10% CMS work / 90% other service work
- Work Scheduler – 30% CMS work / 70% other scheduling work

(*Id.*) On 25 May 2012, in furtherance of the "before and after" analysis, Ms. Potter and Mr. Smith<sup>32</sup> provided Mr. Parker with a "before" CMS cost analysis for FY 08 (finding 37). Using the estimates, MAXIMO data and JDE data, Ms. Potter's FY 08 "before" calculation resulted in a loss of \$236,837.61 for the CMS crew (finding 37).

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<sup>32</sup> Mr. Smith worked on the CMS crew during FY 08 (finding 37).

We agree with EJB that cross-utilization of CMS workers contributed to inaccuracies in MAXIMO data and made it impossible to account for work with absolute precision. However, absolute precision is not necessary. We conclude that the estimate of cross-utilization percentages prepared by a member of the CMS team, Mr. Smith, is a reasonable way to adjust MAXIMO and JDE data to mitigate cross-utilization inaccuracies.<sup>33</sup>

In his expert report, Mr. Schaab presented a “before and after” analysis using MAXIMO and JDE data (findings 46, 65). Mr. Schaab testified that he could adjust his before and after calculation based on Mr. Smith’s estimates, i.e., reduce his number of hours for CM operator by 5%, etc. (finding 46).

From the FY 08 “before” analysis by Ms. Potter and Mr. Smith and the “before and after” analysis by Mr. Schaab, we conclude that a “before and after” analysis is possible using MAXIMO and JDE data adjusted through the use of estimates, such as the one developed by Mr. Smith, to mitigate the affect of cross-utilization.

#### *SOC – Total Cost Method*

Mr. Parker made the decision to stop attempting the “before and after” analysis and switch to the total cost method for the SOC (findings 39, 40). He testified that he made the decision because they could not figure out how to do a before and after analysis<sup>34</sup> (*id.*). He gave no explanation on why the cross-utilization estimate created by Ms. Potter and Mr. Smith could not be used to mitigate the effect of cross-utilization.

Over a period of a year EJB submitted five versions of its SOC (finding 41). EJB’s SOC claim ranged from a high of \$5,111,618.12 to the August 2012 amount of \$2,841,405.64 (*id.*). This amount was reduced to \$2,028,532.57 in December 2012 in response to the Navy’s expert report (finding 47). On the first day of the hearing, EJB reduced its SOC amount to \$1,826,801.25 (finding 49). Generally, the revisions were to substitute actual costs for estimates and correct errors uncovered by the Navy’s expert Mr. Schaab (findings 41, 43, 49). We conclude that EJB experienced difficulty

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<sup>33</sup> Although Ms. Potter testified that cross-utilization caused inaccuracies, which we agree with, there was no testimony to the effect that an estimate was not a reasonable way to adjust the data to correct for cross-utilization inaccuracies. Mr. Parker testified that the “data” was not reliable, but he did not address the reasonableness of using an estimate to mitigate the problem. (Finding 39)

<sup>34</sup> We note that Mr. Parker made the decision after Ms. Potter’s FY 08 “before” calculation using the estimate resulted in a \$236,837.61 loss (finding 37) but neither party presented evidence on this coincidence.

with its in-house effort to develop its SOC as illustrated by the number of problems identified by the Navy expert that were accepted by EJB and the fluctuations in the claim amount up to, during, and after the hearing.<sup>35</sup> It is therefore difficult for us to have confidence in EJB's SOC.

### *Mistake in Bid*

Getting right to one of our major concerns – EJB did not adequately address Mr. Schaeb's conclusion that there was a mistake in EJB's original bid for CMS work in contract 5103. Mr. Schaeb's report finds that EJB's actual CMS staffing level was eleven (11) personnel, four (4) of which were CM operators, but that the original bid did not include the 4 CM operators. (Finding 64) Mr. Schaeb calculated that the mistake in bid cost EJB \$1,359,645 (*id.*). When Mr. Schaeb deducted this amount from his corrected total cost claim, the claim changed to a negative number (*id.*). EJB fails to adequately rebut the evidence of mistake in bid. In its post-hearing reply brief, EJB responds:

Mr. Schaeb's faulty logic also ignores the fact that EJB was consistently profitable. Tr. 3:173:12-17. Thus, regardless of what labor categories Mr. Schaeb finds in the fixed-price bid, EJB was getting the work done at less than its cost. That is not and cannot be disputed. The Navy argues that EJB's bid bust is "proven" by the fact that EJB's profit has been around 3% rather than EJB's target profit of 5%. Navy Brief at 156. As noted, the Navy ignores the fact that it has failed to pay EJB all that it is due, thus reducing EJB's profit.

(App. reply br. at 26) Rather than taking the position that Mr. Schaeb was wrong about the missing four CM operators in the bid, EJB equivocates, "[t]hus, regardless of what labor categories Mr. Schaeb finds in the fixed-price bid, EJB was getting the work done at less than its cost" (*id.*). EJB then supports its rebuttal with testimony about the contract as a whole. The testimony about the 5% and 3% profit rates was the total contract profit, not the CMS profit (finding 37).

We conclude that EJB's failure to confront the mistake in bid evidence directly results in an argument that is illogical. We focus on whether there was a loss due to a mistake in bid in the CMS area of the contract because it relates directly to the reasonableness of EJB's bid for the CMS work that is directly affected by Mod. A00028 – a prerequisite to use of the total cost method. EJB did not rebut

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<sup>35</sup> The record reflects that EJB had similar problems with its spreadsheets supporting the price of Mod. A00028 (findings 20, 21).

Mr. Schaab's conclusion that there was a mistake in the CMS portion of its bid by reference to a general profit in the contract as a whole. We conclude that on this record, there is substantial evidence that there was a mistake in EJB's bid in the CMS work. EJB has not accounted for this mistake in its claim quantification.

### *Discussion*

There is an imbalance in the quality of the evidence in this case. EJB chose Mr. Parker to explain its total cost method claim. While we consider Mr. Parker to be a credible witness, he is a high level manager and essentially presented the results of his team's efforts – his "subject matter experts." (Finding 28) He therefore lacked personal knowledge of the details behind his testimony. It was Mr. Williams who was the principle author of EJB's August SOC, the "final" SOC before the hearing (finding 41), but EJB did not call Mr. Williams as a witness. By contrast, the government's expert, Mr. Schaab, exhibited detailed personal knowledge of the calculations he developed using EJB's MAXIMO and JDE databases. His expert report is supported by extensive data from EJB's databases and he appeared to understand EJB's data much better than did EJB's witnesses. EJB presented nothing of the same detail and quality to rebut the Navy's expert report.

There is also the matter of EJB's failure to adequately address the mistake in bid directly. As we stated above, EJB's response to Mr. Schaab's testimony that there was a mistake in the CMS portion of EJB's bid was to argue that the contract as a whole made a profit. We found this argument illogical. EJB did not state if its bid omitted the four CMS operators or not – something we consider well within EJB's capability. Accordingly, we concluded that there was a mistake in bid that EJB has not accounted for. As we have concluded, to use the total cost method, the contractor's bid must have been reasonable.

Our decision is also influenced by the fact that up to the hearing and after EJB continued to reduce its claim to account for mistakes in its SOC.<sup>36</sup> While we find it commendable that EJB acknowledges and corrects errors, we find it troubling that after a year since the first SOC was submitted, EJB could not get its SOC right.

### *The Record Does Not Support Use of the Total Cost Method*

The parties understand and agree on the criteria for application of the total cost method of quantifying a claim (gov't br. at 145; app. br. at 96). The criteria are:

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<sup>36</sup> We recognize that some reductions were due to substituting actual costs for estimates and do not consider those reductions related to mistakes.

“Under the total cost method, the measure of damages is the difference between the actual cost of the contract and the contractor’s bid.” *Raytheon Co. v. White*, 305 F.3d 1354, 1365 (Fed. Cir. 2002). The total cost method of recovery is not favored and will not be used if, as here, there is another, more reliable method available by which to establish the contractor’s damages. *Id.* In any event, before a contractor can obtain the benefit of the total cost method, it must prove: (1) the impracticability of proving its actual losses directly; (2) the reasonableness of its bid; (3) the reasonableness of its actual costs; and (4) lack of responsibility for the added costs. *Propellex Corp. v. Brownlee*, 342 F.3d 1335, 1339 (Fed. Cir. 2003). [Emphasis added]

*Hi-Shear Technology Corp. v. United States*, 356 F.3d 1372, 1383 (Fed. Cir. 2004). In this appeal EJB applies the total cost method to one particular aspect of its contract – the control system work.

We consider the first two elements to justify the use of the total cost method. First, we examine the impracticability of proving its actual losses directly. We previously concluded that MAXIMO and JDE data bases were capable of tracking work and costs both before and after Mod. A00028. EJB’s main reason why it cannot use this capability to track “before” is that cross-utilization introduces inaccuracies into MAXIMO data. We previously concluded that this problem may be overcome by the use of an estimate of the extent of cross-utilization such as the one made by Mr. Smith. Our analysis of GX-172 leads us to conclude that for A5rev. (Mr. Blankenship), A6 (allocation of non-productive costs), A7rev. (allocation of non-productive costs), A27 (duplication of ladder costs), A32 (deduction of point check modifications), GX-152 (prior funding mods), and GX-152 (CCI costs) the Navy’s expert report raised doubts in our minds over the accuracy of EJB’s total cost SOC. We therefore conclude that the before and after analysis utilizing an estimate of cross-utilization is a more reliable and more direct method of proving costs. EJB has not proven the first element.

Next we consider the reasonableness of EJB’s bid as it relates to the CMS work. We have concluded that EJB failed to adequately rebut Mr. Schaeb’s conclusion that EJB’s CMS bid omitted four CMS operators – a mistake in bid. Failure to account for a mistake in bid prevents proof of reasonableness of the bid. *Grumman Aerospace Corp.*, ASBCA No. 48006, 06-1 BCA ¶ 33,216 at 164,620. EJB has failed to prove that its bid in the CMS area was reasonable.

Having failed to carry its burden of proof as to the first two elements of proof required to justify use of the total cost method, we conclude that EJB may not rely on the total cost method to prove its claim.

CONCLUSION

For the reasons stated above, we deny EJB's appeal.

Dated: 22 January 2015



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CRAIG S. CLARKE  
Administrative Judge  
Armed Services Board  
of Contract Appeals

I concur



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MARK N. STEMPLER  
Administrative Judge  
Acting Chairman  
Armed Services Board  
of Contract Appeals

I concur



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RICHARD SHACKLEFORD  
Administrative Judge  
Vice Chairman  
Armed Services Board  
of Contract Appeals

I certify that the foregoing is a true copy of the Opinion and Decision of the Armed Services Board of Contract Appeals in ASBCA No. 57112, Appeal of EJB Facilities Services, rendered in conformance with the Board's Charter.

Dated:

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JEFFREY D. GARDIN  
Recorder, Armed Services  
Board of Contract Appeals