

ARMED SERVICES BOARD OF CONTRACT APPEALS

Appeals of -- )  
United Launch Services, LLC ) ASBCA Nos. 56850, 57542, 57661  
Under Contract No. F04701-98-D-0002 )

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OPINION BY ADMINISTRATIVE JUDGE WILSON

These appeals arise from the denial/deemed denial of claims filed with the contracting officer (CO) for increased costs associated with satellite launch services. United Launch Services, LLC (ULS or appellant)<sup>1</sup> contends under Count I of its complaint that it is entitled to an equitable adjustment pursuant to the Changes clause of the Initial Launch Services (ILS) contract resulting from the increased weight of the satellite payloads. The United States Air Force (Air Force or government) counters, *inter alia*, that the weight increase did not constitute a change to the contract, as the satellite could have been placed into the desired orbit utilizing the originally-contemplated rocket; and the claim was barred under a previously issued modification under the contract.

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<sup>1</sup> As will be seen, the name of the business entity entering into a contract with the United States Air Force, performing that contract and filing a claim under that contract changed several times during the events we discuss herein. While we recognize those name changes as they occur, we note initially that what ended as ULS began as a contract awarded to McDonnell Douglas Commercial Delta, Inc., a wholly-owned subsidiary of McDonnell Douglas Corporation, a wholly owned subsidiary of the Boeing Company (Boeing).

Count II of appellant's complaint (alleging breach of contract) was denied via summary judgment. *See United Launch Services, LLC*, ASBCA No. 56850 *et al.*, 14-1 BCA ¶ 35,511. Familiarity with the facts of our prior decision is presumed. The government also moved to dismiss Count III (mutual mistake) of appellant's complaint for lack of jurisdiction, contending that ULS's claim upon which the appeal was based (ASBCA No. 56850) did not allege a mutual mistake of fact. ULS filed a protective claim with the CO and subsequent appeal with the Board (ASBCA No. 57542) to secure its ability to pursue a claim based on mutual mistake. Count IV requests that the Board grant entitlement due to the "grossly inadequate estimates of the commercial market that resulted in an unconscionable price for launch services." The government also asserts the affirmative defenses<sup>2</sup> of release, accord and satisfaction, and estoppel. The Board conducted a three-week hearing on entitlement and that is only what we decide. Both parties have submitted pre- and post-trial briefs and replies.

### FINDINGS OF FACT

#### *Request for Proposal (RFP)*

1. On 19 June 1998, the Air Force issued RFP No. F04701-97-R-0008 for Development and Initial Launch Services under the Evolved Expendable Launch Vehicle (EELV) program (R4, tab 20, *see also* tabs 21-28). The RFP described the purpose of the EELV program as follows: "The primary requirement of the EELV program is to execute the Government portion (DoD and NASA) of the National Mission Model at lower recurring costs than those of current expendable systems. The program should also maintain or improve reliability, capability, and operability." (R4, tab 24 at 4)<sup>3</sup>
2. The RFP contemplated award of two separate but simultaneous contracts to two offerors. One contract was to be a Development Agreement under Other Transactions authority to partially fund the completion of the contractor's development of an EELV launch capability. The other contract, referred to as the ILS contract, was to procure an initial set of EELV launch services utilizing the commercial items procedures contained in FAR Part 12. (R4, tab 19 at 18, tab 21 at 3)
3. The purpose of the ILS contract was to acquire launch services for all of the launches identified in the government portion of the National Mission Model in FY02-FY05. The anticipated period of performance would start in FY98 and end in FY05. A contractor's actual period of performance would depend on the number and type of launches awarded to that contractor. (R4, tab 21 at 3) The number and type of launches

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<sup>2</sup> The government also initially pled a fourth affirmative defense contending that the claims were barred by the six-year statute of limitations. However, the government subsequently withdrew that defense. (ASBCA No. 56850, Bd. corr. file)

<sup>3</sup> References to page numbers are to the consecutively-numbered pages within each tab.

awarded to a particular contractor was to be made on a best value basis (*id.* at 7). Also, the ILS contract was to be awarded utilizing the commercial items procedures set forth under FAR Part 12 (R4, tab 26 at 8).

4. Annex 2 of the RFP contained the government portion of the National Mission Model (NMM), which showed the anticipated government EELV launches during the period 2001-2020. The government portion of the NMM model was set out in total and was also broken out into Mission Model A and Mission Model B. In total, 183 government EELV missions were shown on the complete mission model, which was the sum of the missions shown on Mission Model A and Mission Model B. (R4, tab 23 at 3-8)

5. The RFP instructed offerors to propose fixed prices for each contract line item number (CLIN) for each launch service (mission) in FY02-FY05 (R4, tab 21 at 25). Offerors were to submit proposed prices by mission and year on Attachment 6 to the Model Contract, in accordance with Annex 9 (R4, tab 21 at 28, tab 25 at 3-8, tab 26 at 43). Additionally, Annex 11 provided at note 2: “SPRD [Systems Performance Requirements Document] to allow delivery to transfer orbit (4,725 lbs to 55 degrees) with spin stabilization or to final orbit (2,675 lbs at 10,998 nmi circular orbit at 55 degree inclination) at EELV ktr’s option” (R4, tab 27 at 8).

6. The RFP required offerors to “provide a file (**COMM.PDF**) which summarizes impacts of the Offeror’s commercial launch capture on the Offeror’s ability to execute the Government’s EELV launch service requirements” (R4, tab 21 at 21).

7. The RFP required offerors to submit a Life Cycle Cost Estimate (LCCE) for the Offeror’s EELV system. The LCCE was to reflect the life cycle costs for all of the launches identified in Mission Model A and Mission Model B, provided in the RFP. Offerors were instructed to update the LCCE they had submitted during the predecessor contract, which was referred to as the Pre-Engineering and Manufacturing Development (Pre-EMD) contract. An offeror that did not show at least a 25% reduction from the Launch Cost Baseline (LCB) provided in the RFP would not receive a Development agreement. (R4, tab 21 at 3, 20)

8. The Pre-EMD RFP required offerors who had participated in that earlier phase of the EELV procurement to base their LCCE on the government portion of the NMM and to “[a]ssume a commercial capture of 12 launch vehicles per year (6 Delta class and 6 Atlas class), except for FY01, where you shall assume a commercial capture of 6 launch vehicles (3 Delta class and 3 Atlas class)” (R4, tab 18 at 5).

9. Boeing submitted its initial proposal in response to the ILS RFP on 20 July 1998 (R4, tabs 29-40). Boeing proposed fixed prices for launch services in Attachment 6 to the Model contract, as instructed by the RFP (R4, tab 40).

10. On 20 July 1998 Boeing submitted an updated LCCE for the EELV program with its proposal (R4, tab 30 at 6-7). The proposal stated that Boeing's assumptions about its capture of the government and commercial launch markets for pricing ILS launch services were different than the assumptions incorporated into the LCCE as follows:

The LCCE pricing is based on the quantities and vehicle types required by the government's EELV NMMa and NMMb as provided in the request for proposal (RFP), Annex 2. The ILS prices found in ILS ATCH6 ORDERS.DOC are different than the LCCE prices and reflect our competitive analysis for the ILS period of performance and Boeing commercial assumptions.

(R4, tab 31 at 9)

11. In its LCCE, Boeing assumed 234 total commercial medium EELV launches for each of "National Mission Model A" and "National Mission Model B." Boeing assumed 6 launches for 2001 and 12 launches per year for 2002-2020 under each mission model. (R4, tab 30 at 6-8)

12. Boeing's proposal did not quantify the assumptions it made about its projected capture of commercial launches in its proposed pricing for ILS launches. However, Boeing's proposal stated that commercial sales during the ILS program would lower government ILS costs (i.e., Boeing's prices), as follows: "Commercial market capture and resulting high production and flight rates will contribute to significantly lowering Air Force launch services costs throughout the EELV's service life" (R4, tab 29 at 13). Boeing's proposal also indicated that, in its decision to invest in the EELV program, Boeing had made its own favorable projection of the commercial market and its capture thereof: "Our projected commercial capture plan, combined with the EELV program, justified a significant Boeing investment in the EELV/Delta IV program to provide substantial production and launch infrastructure" (R4, tab 36 at 5).

13. Following a government "Downselect Design Review" (DDR) during the Pre-EMD phase of the procurement, Boeing opted not to develop a dedicated launch vehicle for small payloads. Boeing's proposal stated that its rationale for this decision was based, in part, on Boeing's assumption that "by the year 2004, the share of the projected [commercial] launch market for Delta IV will average 24 launches per year." (R4, tab 35 at 15)

14. On 5 October 1998, Boeing submitted its Best and Final Offer (BAFO) that provided updated prices (R4, tab 47).

*The Contract*

15. On 16 October 1998, the government awarded to Boeing Contract No. F04701-98-D-0002 (contract) (R4, tab 50). The contract incorporated the prices Boeing submitted in its BAFO (R4, tab 58). The contract awarded 19 launches to Boeing, including the following missions: National Reconnaissance Organization (NROL) A/B-1; Wideband Gap Filler (WGS or WGF); Global Positioning System (GPS) IIF-1; GPS IIF-5; and GPS IIF-9 (R4, tab 50 at 37).

16. The contract contained the following clauses and provisions in pertinent part:

52.212-4, CONTRACT TERMS AND CONDITIONS—COMMERCIAL ITEMS (APR 1998) THIS CLAUSE MAY BE TAILORED IN ACCORDANCE WITH FAR 12.302(b)

....

(c) Changes/Modifications. Changes in the terms and conditions of this Contract may be made only by written agreement of the parties. Either Party shall have the right to request changes within the general scope of this Contract. Any such requests for changes must be made in writing and signed by an authorized representative of the requesting Party. Within forty-five (45) days of receipt of a change request, the receiving Party shall provide notification to the requesting Party of the cost, schedule, or other terms effected by the requested change. If any such change causes an increase or decrease in the cost of, or time required for, or both, the performance of this Contract, or otherwise affects any other provision of this Contract, an equitable adjustment shall be negotiated in good faith between the Parties....

(d) Disputes. This Contract is subject to the Contract Disputes Act of 1978.... Failure of the Parties to this Contract to reach agreement on any request for equitable adjustment, claim, appeal or action arising under or relating to this Contract shall be a dispute to be resolved in accordance with the clause at FAR 52.233-1, Disputes, which is incorporated herein by reference. The Contractor shall proceed diligently with performance of this Contract, pending final resolution of any dispute arising under the Contract.

(R4, tab 50 at 19-20)

(6) THE FOLLOWING ADDITIONAL SPECIAL CONTRACT REQUIREMENTS (SCR) ARE APPLICABLE TO THIS CONTRACT:

SCR. 1 REQUIREMENTS

....

(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the following:

(1) The Procuring Contracting Officer (PCO) shall issue orders when requesting the Contractor to furnish any launch services under this Contract....

(2) All orders are subject to the terms and conditions of this Contract. In the event of conflict between an order and this Contract, the Contract shall control.

....

(4) Prior to placing an order, the PCO shall verify the recurring standard launch service Attachment 6 price in accordance with SCR. 19, entitled Most Favored Customer.

....

(d) The Government reserves the right to substitute a payload for an ordered launch service. Before modifying the related order to affect the substitution, the PCO shall consult with the Contractor performing the launch service and request a proposal that provides information regarding any additional costs, impacts to the launch schedule, and other relevant factors. If the Government decides to proceed with the substitution, the proposal will serve as the basis for an equitable adjustment, if any, and the related order will be modified in accordance with the Changes/Modifications clause of this Contract.

(e) No equitable adjustment will be allowed for recurring standard launch services (CLIN 0100) for the substituted payload so long as the substitution remains within

the same payload class as defined below. Equitable adjustments for substitutions outside the same vehicle class, mission unique services and mission integration costs incurred to date at the time of payload substitution and launch schedule will be mutually agreed upon....

| <b>Vehicle class</b> | <b>Payloads</b>  |
|----------------------|--|
| Small                | GPS, TSX, SBIRS-LEO, DMSP, SBR/MTI                         |
| Medium               | DSCS, SBIRS-GEO, Mission A/B, ADV EHF, Wideband Gap Filler |
| Heavy                | DSP, Mission C   |

(R4, tab 50 at 34-35) With regard to the GPS payloads, Table 1 of the unclassified government missions delineated in the contract specified that the direct to orbit<sup>4</sup> payload would weigh 2,675 lbs (R4, tab 51 at 8).

17. The contract also included:

### 3. KEY SYSTEM REQUIREMENTS

#### 3.1 Capabilities Required

##### 3.1.1 Performance

EELV shall have the ability to accurately deliver the government portion of the NMM missions to required orbit(s). The mission masses and required orbits are defined in Table 1....

....

##### 3.1.1.1 Performance (Mass-to-Orbit)\*.

The threshold requirement is to deliver the required mass to the desired orbit of the payloads indicated in Table 1....

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<sup>4</sup> The difference between a “transfer orbit” and a final or “direct orbit” is when the launch vehicle places the satellite in an initial transfer orbit, the satellite is responsible for moving from that orbit to its final orbit, thus the satellite needs fuel to make that happen. This is different from a direct orbit, where the launch vehicle takes the satellite directly to its final orbit. Thus, the difference in launch weight is due to the additional fuel needed. (Tr. 1/148)

....

### 3.1.1.2 Performance Margin

Performance margin is the amount of additional performance capability a vehicle has above the required mission need at the time of launch. EELV shall have a threshold performance margin of 7% [for a] MLV [(medium launch vehicle)] and 2% for the [heavy lift vehicle] over the KPP [(key performance parameters)] for mass to orbit listed in Table 1 above. The Government intends to reserve 5% of the MLV performance margin as useable payload mass growth capability for government payloads.[]

### 3.1.1.3 Flight Performance Reserve

EELV performance shall provide a [3 sigma] (99.865%) assurance of the vehicle fully meeting mass to orbit requirements (including performance margin capabilities) while considering possible uncertainties in EELV and environmental parameters such as propellant loading, Isp, and atmospheric density.

....

## 4. SYSTEM OBJECTIVES

This section contains capabilities beyond the minimum system requirements contained in section three the Government has identified as beneficial. The system is not required to meet these objectives. However, if the system exceeds minimum requirements, these objectives are available to be used by the contractor in conducting system trades.

(R4, tab 51 at 7-8, 13) We find that the contract did not specify a particular rocket/launch vehicle to be used with each payload and only required the contractor to put the designated satellite into the desired orbit. However, appellant informed the government that it intended to use a Delta IV Medium as the launch vehicle for the GPS missions. In responding to a clarification during the solicitation phase, appellant stated:

As part of Boeing's DDR changes, GPS was remanifested on a Delta IV Medium. The Delta IV Medium launch vehicle provided more performance to accommodate increases in spacecraft weight and avoided modifications to the spin table due to increases in SV moments of inertia. This additional performance capability allows for the direct injection method

for orbit insertion instead of delivering the spacecraft to a transfer orbit...

(R4, tab 42) We further find that the prices contained in the contract also demonstrate that they were priced in accordance with payload size (R4, tab 37 at 31-32, tab 58 at table 1.1; tr. 8/53).

*The NROL A/B-1 Missions*

18. By letter dated 5 November 1999, the government informed Boeing (through its wholly-owned subsidiary, Delta Launch Services, Inc.) that it was contemplating modifying the A/B-1 mission launch services to accommodate a heavier payload (app. supp. R4, tab 113; tr. 2/103-04). The government, by letter dated 5 July 2000, invited Boeing to submit a revised statement of work and cost proposal to modify its EELV ILS contract for anticipated changes to the Mission A/B-1 launch service (tr. 2/105).

19. The record indicates that Boeing submitted a proposal dated 10 July 2000 (supp. R4, tab 45) and a subsequent revised proposal dated 26 July 2000, which provided cost information and terms for a Delta IV Medium (4,2)<sup>5</sup> in place of the Medium (4,0) (launch vehicle) as specified in the original ILS contract due to the increased payload weight (see R4, tabs 59, 60).

20. The parties entered negotiations and on 18 September 2000, executed Modification No. P00008 which increased the prices for the A/B-1 missions, and contained the following language:

- b. If Boeing is not able to meet the mission requirements, delivering a maximum spacecraft weight of 9,415 lbs... Boeing will provide an alternative launch service within the EELV family at no additional cost to the Government....

....

- g. In consideration of these contract modifications and associated equitable adjustments agreed to herein, the

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<sup>5</sup> A Delta IV M+ (4,2) is a launch vehicle with a common booster core to the Delta IV Medium (4,0) but adds two smaller solid rocket boosters (GEM 60s) (supp. R4, tab 207 at 107). However, they are different launch vehicles as the (4,2) has a thicker skin as “the aerodynamic loads on the rocket, and especially the common booster core, are significantly higher”; you cannot switch back and forth (tr. 3/71-72, 6/27).

Contractor releases the Government from any and all liability under this contract for further equitable adjustments attributable to these modifications.

Thus, the negotiated price increase under the contract to launch this mission on a Delta IV + (4,2) instead of a Delta IV (4,0) was [REDACTED] million. (R4, tab 61 at 2-3, 43)

#### *The WGS Missions*

21. By letter dated 16 May 2001, the government informed Boeing that the WGS payload weight (originally estimated at 11,000 lbs due to the fact that it was still under development in June of 1998) had increased to 12,500 lbs. Boeing was asked to provide firm prices for the “three (3) WGS” missions under the respective CLINs based upon the increase in SV weight. (R4, tab 62)

22. On 7 June 2001, Boeing submitted its proposal, upgrading the launch vehicle from a Delta IV Medium to a Delta IV M+ (4,2) (R4, tab 63). Subsequently, on 1 November 2001, the government revised its 16 May 2001 request as follows:

2. Since that original request and your proposal submittal (reference a), the WGS requirement has changed. The Contractor should now assume a 13,200 lbs. SV and include a 2% performance margin, for a total design mass-to-orbit capability of 13,464 lbs....

Accordingly, Boeing was asked to revise its previous proposal in light of the new information. (R4, tab 64) By letter dated 16 November 2001, Boeing complied with the government’s request and proposed that the mission would require a Delta IV M+ (5,4) instead of Delta IV M+ (4,2) (R4, tab 65).

23. The record indicates that the parties continued negotiations and on 29 October 2002 executed Modification No. P00032, which included the increases for the WGF (Wideband Gap Filler) missions (R4, tab 75; supp. R4, tab 76).

#### *The GPS Missions*

24. By email dated 30 September 2003, the CO forwarded Delivery Order (DO) 0083 and Modification No. P00056. DO 0083 read as follows: “The purpose of this delivery order is to establish CLIN 0103 for GPS-IIF-1 Mission which is being issued as a bilateral agreement due to the late CLIN 0103 start date for GPS-IIF-1.” Modification No. P00056 made changes to the contract pursuant to DO 0083 by increasing the GPS IIF-1 CLIN 0103 price due to the aforementioned delays. The CO advised Boeing that if it

agreed with the DO and modification, it should sign the documents and return them via facsimile. (R4, tab 85)

25. On the same day, Boeing replied by letter that although DO 0083 reflected a price adjustment based on launch delays, it did not reflect “the launch service price adjustment resulting from the GPS IIF-1 Payload growth.” Boeing further noted:

Based on paragraph 3.1.1.1 of [the System Performance Requirement Document, Attachment 1 of the contract], our contractual requirement for GPS IIF-1, is a payload lift off weight of 2,675 lbs. Currently IRS 007 Revision 003...requires a lift-off weight of 3,578 lbs resulting in payload weight growth of 903 lbs.

In order to accommodate this increased weight, the GPSIIF-1 spacecraft will need to be lifted on a Delta IV Medium vehicle. It is our recommendation that the parties defer from signing Delivery Order 0083 until a mutually acceptable price adjustment can be established as a result of the payload class change.

(R4, tab 86)

26. In a subsequent letter, also dated 30 September 2003 which references a teleconference between Boeing and the government, Boeing informed the government that it “has signed the subject modifications with the condition, that Boeing is entitled to an equitable adjustment to CLINs 0100, 0101, 0103 and 0102 should the payload weight grow beyond the lift capability specified in the subject contract” (R4, tab 87).

27. On 16 October 2003, the parties executed Modification No. P00057, which deleted seven launch services. This modification also contained a release in which the parties agreed to “mutually release each other from any and all other potential claims...arising under or relating to events that have occurred through the date of this agreement under the EELV contract.” This modification also agreed that the above release did not extend to the following:

(4) The Contractor’s Request for Equitable Adjustment (REA) under The “Other Transaction Agreement” (OTA), Group 2, Proposal No. D4-02-019;

(5) Any Contractor REA or claim arising under or relating to the DSCS-2 launch service; and

(6) Any and all other Contractor REAs or claims (in addition to those set forth in subparagraphs (4) – (5) of this paragraph) arising under or relating to the EELV program from October 1998 through the date of this Modification [16 October 2003] in a total amount not to exceed \$20 million.

(R4, tab 90 at 1, 4-5)

28. By letter dated 27 October 2003, Boeing advised the government that it had been informed that the government was intending to order GPS IIF-1 launch services. Boeing requested that the government “provide the current launch weight for the GPS IIF-1 payload, so that Boeing can plan integration activities accordingly.” (R4, tab 91)

29. By email dated 23 December 2003, the government forwarded a copy of DO 0086 (GPS IIF-1 launch services) which included a release of claims for Boeing to review (R4, tab 96). By letter dated 15 January 2004, Boeing replied in part as follows:

As indicated in the referenced letter, the current Space Vehicle (SV) launch weight for the GPS IIF-1 mission is 3758 lbs. This weight represents approximately, a 40% increase to the contractual SV weight of 2675 lbs presently indicated in the System Performance Requirements Document (SPRD) contained in the subject contract. The change in SV weight represents a material change to our contract requirements that will result in a “Class of Vehicle Change/LV Class Upgrade and an equitable adjustment, in accordance with the Changes/Modifications clause of the ILS contract. BLS requests that the Government confirm the Space Vehicle weight so we can proceed with our proposal for an equitable adjustment as required.

Please insert the following language...“*except for price increases due to Boeing Launch Services for any changes in Vehicle Class caused by an increase in the satellite weight or vehicle performance in support of : GPSIIF-01, GPS IIF-05, GPS IIF-09, and GPS IIF-10 satellites*”.

(R4, tab 98 at 3)

30. On 29 January 2004, Boeing received written confirmation of the payload weight for GPS IIF-1 (3,758 lbs), as previously requested on 27 October 2003 (R4, tab 100). The weight increase was due to a government-driven modernization program (tr. 3/102). The record reflects that in response to this confirmation, Boeing conducted an

analysis to determine the proper vehicle to launch the heavier payload. The analysis showed that flying a Southeast trajectory (from Cape Canaveral, Florida)/ascending node mission on a Medium (4,0) would result in a negative performance margin of more than [REDACTED] (app. supp. ex. 593; tr. 3/112-25). A Northeast trajectory takes the launch vehicle over the more populated areas of Europe, which is more efficient than flying a Southeast trajectory which is a longer flight that steers clear of the Bahamas and crosses the southern tip of Africa and stays mostly over the oceanic portions of the Earth (tr. 3/130). The analysis demonstrated that utilizing a Northeast trajectory/descending node yielded an assured lift capability of [REDACTED], which was more than the satellite vehicle weight of 3,758 lbs. However, the positive performance margin was only [REDACTED], which did not include mission equipment (tr. 3/129). Also, Boeing advised the Air Force that flying this trajectory would require a waiver from the Range Commander, the commanding officer of the Logistics Group of the 45<sup>th</sup> Space Command at the Eastern Launch and Test Range who was the final decision authority for all launches, which could possibly delay the launch (tr. 3/170-71).

31. Boeing responded, by letter dated 5 March 2004, reiterating its position that the new weight of 3,758 lbs represented a 40% increase to the contractual weight of the GPS IIF-1 payload and, as such, represented “a material change to the contract that requires concurrence by Boeing in accordance with the [Changes] clause.” Boeing also stated that it would “prepare a proposal to modify the price for the launch that, once its [sic] agreed upon by the parties, can be included in a contract modification to implement the proposed change to the satellite weight.” (R4, tab 100 at 2)

32. On 13 April 2004, Boeing recommended that a Delta IV M+ (4,2) launch vehicle be used to meet GPS IIF mission objectives with the stated payload mass of 3,758 lbs and indicated that it would provide a firm proposal by 30 April 2004 “utilizing current pricing, for GPS IIF missions IIF-1, IIF-5, IIF-9, and IIF-10” (R4, tab 114).

33. The CO responded, by email dated 14 April 2004, informing Boeing that it should not prepare a proposal to re-price the four GPS missions, as the program office was unclear regarding the price “to add two GEM-60 engines to satisfy a performance problem.” Boeing replied that the parties should meet to discuss their contractual concerns and such discussions should include the parties’ legal representatives. (R4, tab 115)

34. By letter dated 28 April 2004, the CO reiterated her position from the previous email that Boeing should not prepare a proposal to re-price the four GPS missions. The letter also indicated that technical discussions were ongoing and the CO expected further meetings would be held in order to reach a technical solution. Once the technical solution was agreed upon, the CO advised that the parties can continue contractual discussion regarding the mission. (R4, tab 118) The record also contains a briefing that Boeing prepared analyzing the data regarding using the Medium (4,0) rocket to complete the mission and discussing options. The briefing presented a conclusion that flying the GPS

IIF mission with a 3,758 pound satellite vehicle on a Medium (4,0) resulted in an unacceptable risk because: (1) proper performance margins cannot be provided for a standard southeast launch; (2) a northeast launch would require increased interaction with the Range; and (3) a northeast launch is limited to descending node<sup>6</sup> only, thereby decreasing launch availability and not in compliance with the contract terms of unlimited launch availability. Additionally, the briefing also showed that Boeing believed that a launch on a Medium (4,2) was the “right technical answer” as the more-powerful rocket had sufficient performance margins, eliminated the risk of schedule impact, and allowed satisfaction of additional requirements (mission equipment, space flight instrumentation, liftoff instrumentation (tr. 3/173) and upper stage requirements). (App. supp. ex. 330 at 16)

35. On 3 May 2004, Boeing responded to the CO’s 28 April 2004 letter stating:

Although we understand that GPS IIF technical discussions are on-going, we feel it is important to provide you with our contract position as it relates to ordering missions assigned to the contract, specifically GPS IIF Missions.

Procedure for Ordering the Launch

....

As indicated by reference (c), the Air Force has adopted a process of ordering launches by contract modification, rather than using the ordering procedure set forth in Part II, paragraph (1), page 2 of the contract. Contract modifications require both parties’ approval, and up to this point the Air Force has insisted that the contract modification include a waiver of all claims. Boeing was not able to sign the Air Force’s proposed contract modification (reference c) because the Air Force insisted that Boeing waive its right to equitable adjustment for the weight growth.

There are two ways to address this situation. One would be for the Air Force to issue a unilateral order for the launch. Ordering a launch is not, by itself, a contract modification

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<sup>6</sup> Descending node is when the first crossing of the equator occurs from north to south after obtaining a park orbit; ascending node is when the first crossing of the equatorial plane occurs from south to north (supp. R4, tab 196 at 20). Based on the propellant used and the ability for the vehicle to coast you can gain capability by selecting descending node over ascending node (*see* tr. 6/52-53).

because the contract contemplates such orders. SCR.3 (a) states simply that a Launch Service is ordered by issuance of an order from the Air Force.

The other approach, if the Air Force prefers to use the contract modification method of ordering launches, would be to avoid the use of a waiver to exclude the claim for weight growth.

#### Equitable Adjustment

Boeing has prepared and is ready to submit a request for equitable adjustment based on the reference (b) letter. Reference (b) formally notifies Boeing that the GPS IIF satellite weight has increased and is now 40% over the contractually-specified 2675 lbs. The Air Force notice of this weight increase is a change to the contract, as the contract specifies the weight of the satellite with a margin of permitted weight increase. The satellite has now grown beyond the weight and margin specified in the contract.

....

#### Entitlement

It's important to understand that the contract is a FAR Part 12 commercial contract, not a FAR Part 15 contract. The prices in the contract were determined commercially, and not on the basis of cost. For example, at the time the contract was entered into, the market dictated that small satellite launches sell for less than medium weight satellite launches. Even though both sides knew that Boeing would not have a "small" launch vehicle, Boeing agreed to a different price range for launching small satellites than for launching a medium satellite.

...It is Boeing's position...that if the GPS IIF satellite had been known to weigh in the medium range at the time the contract was signed, the price for the launch would have been higher than it is now.

#### Quantum

Because this is a commercial contract, it is not appropriate to calculate the value of the equitable adjustment on the basis of the incremental cost created by a change. Instead, Boeing is entitled to a fair and reasonable price for such a launch service.

(R4, tab 120 at 1-2)

36. By letter dated 19 May 2004, the CO advised Boeing that the program office was not in a position to order the GPS IIF mission (R4, tab 124).

37. By letter dated 14 June 2004 to Lt Gen Brian Arnold, Commander Space Missile Systems Center, appellant advised the government that “the Delta IV Medium launch vehicle represents an unacceptable level of mission risk for this mission; therefore we are proposing the Delta IV M+ (4,2) launch vehicle for the GPS IIF mission.” Appellant stated that it reached this recommendation due to the following reasons:

- With the current spacecraft mass, we have negative performance margins flying a Delta IV (4,0) to our assured performance margins, except if we:
  - Fly over Europe which increases our risk with range safety and
  - Do not meet the Space Command requirement to be able to launch 365 days a year and
  - Accept much less than our standard EELV performance margins at the start of a mission ([REDACTED] Vs. 7%) and
  - Not fly instrumentation for mission assurance as is normally done and not have the capability to meet the Space Command Policy for upper-stage disposal

(R4, tab 125)

38. On 16 June 2004, the government briefed Lt Gen Arnold. The briefing set out the issue as “mass to orbit capability of the Delta IV (4,0) launch vehicle for GPS II-F satellite decreasing below nominal mission confidence level” and importantly “funds for upgrade to Delta IV (4,2) not available.” Several requirements trade-offs were listed in order of the highest gain in performance, including, *inter alia*, removing certain mission assurance hardware and flying a Northeast trajectory. The recommendation from the government was to launch on a (4,0) with a negative performance margin and use the trade-offs to gain performance which increased the margin to [REDACTED] while recognizing that a Range Safety waiver might be needed (due to a rise in the expected casualty rate – Ec by flying over populated areas) and such approval could not happen until after the launch was ordered, as well as future performance degradation. (App. supp. ex. 349 at 12)

39. By letter dated 15 June 2004, Boeing submitted an REA for the GPS IIF mission due to the “Change/Increase in Payload Mass.” The letter stated further:

We consider the increase in payload mass to be a change to our contract requirements, and therefore we interpret the [29 January 2004 payload weight confirmation letter] to be a request to modify our contract. As mentioned above, we are pleased to submit our proposal based on your request during the...meeting. We also consider the submittal of this proposal to be a requirement under the changes clause.

(R4, tab 126) The REA did not mention mutual mistake with regard to pricing the launches under the contract or as a theory of recovery.

40. The CO forwarded DO 0086 to Boeing for review and signature attached to a letter dated 28 June 2004. That letter advised that the “System Performance Requirements Document (SPRD), Attachment 2, Revision 2, will be modified by a separate contract modification for this mission only” and will include that the GPS IIF-1 spacecraft weight will not exceed 3,758 lbs. Boeing was requested to sign the delivery order by 30 June 2004. (R4, tab 129)

41. Boeing responded, by letter dated 9 July 2004, indicating that it executed DO 0086, conditioned upon certain deletions being made from the aforementioned delivery order. Its basis for conditionally executing the order was, *inter alia*, to reserve its rights to an equitable adjustment due to the increase in satellite weight. Boeing also advised that it intended to satisfy the GPS IIF launch service mission using the Delta IV M+ (4,2) launch vehicle due to the increase in payload weight, and had conducted “numerous trades and have concluded that the use of the Delta IV Medium (4,0) Launch Vehicle represents an unacceptable level of risk to The Boeing Company.” (R4, tab 132)

42. The parties continued to discuss the GPS IIF mission’s technical requirements and contractual implications of the increased payload weight (R4, tab 138 at 2-4). The record reflects that throughout the months of August and September of 2004, the Air Force held numerous briefings on solutions to the mission problems (R4, tabs 137-39, 141). The parties were unable to reach an agreement on the 15 June 2004 REA.

43. By letter dated 7 March 2005, the CO forwarded a second version of DO 0086 and Modification No. P00075 for Boeing’s signature. The revised delivery order did not include a price increase for the mission, as the Air Force maintained that the smaller launch vehicle (4,0) met the mission requirements. In addition to removing the release of claims provision from the previous version of DO 0086 and setting the required launch date as “no later than 31 Aug 05” the CO stated the following:

For the Government to properly evaluate your Request for Equitable Adjustment, you must submit evidence to support the need for a change in vehicle from a medium to a medium plus. Further, you must submit sufficiently detailed evidence of the actual cost increase caused by the growth in space vehicle weight.

(R4, tab 142)

44. The parties met to discuss the DO and Modification No. P00075 on 9 March 2005. The outcome of that meeting was memorialized in a letter dated 11 March 2005, wherein the CO provided the revised DO 0086 and advised Boeing that it would not issue Modification No. P00075. The government, however, expected the mission “to be launched on a medium launch vehicle and intend[ed] to coordinate a mission specification consistent with the requirements of a medium launch vehicle.” The CO reiterated her request that Boeing provide detailed evidence to support its REA and “any request for equitable adjustment must be accomplished in accordance with the Changes clause (Part III 52.212-4(c)) and certified in accordance with DFARS 252.243-7002 Requests for Equitable Adjustment (MAR 1998).” (R4, tab 143) The record does not contain any evidence that the CO attempted to assert the previous release language from Modification No. P00057 as a bar to entitlement.

45. Through letters dated 15 and 18 March 2005, Boeing informed the government that it had signed DO 0086, but using a Delta IV Medium (4,0) launch vehicle represented an “unacceptable level of mission risk to The Contractor based on the increased weight.” Therefore, Boeing advised that it would use a “Delta IV +(4,2) launch vehicle for the GPS IIF Mission” and submit an REA. (R4, tabs 144-45)

46. By letter dated 1 April 2005, Boeing requested that the government coordinate with the Space Vehicle Contractor (SVC) that it intended to utilize the more powerful launch vehicle (Medium + (4,2)) to fulfill the mission (R4, tab 147).

47. The government responded, by letter dated 5 April 2005, and reported that it relayed the requested information to the SVC, but the government still intended to coordinate the mission with a medium launch vehicle (R4, tab 148).

48. By letter dated 19 August 2005, Boeing submitted a certified REA for payload increases for the following missions: GPS IIF-1, GPS IIF-5, GPS IIF-9, GPS IIF-10 and SBIRS-GEO. The letter advised the following:

As a result of increases beyond the contractual baseline for the launch service, the contractor hereby revises the launch service price from [REDACTED] Million to [REDACTED] Million for a net increase to contract price of [REDACTED] Million. We are also providing an estimate for the other three GPS missions and one SBIRS-GEO mission, in the event that the satellite weight exceeds the contractual specified weight at the time these missions are ordered.

....

...The pricing methodology is consistent with the re-pricing of the NROL-22 and WGS missions similarly resulting from payload increases. In these previous cases the resulting decision to utilize the next higher payload class required a complete re-price of the larger launch vehicle and we continue to base our revised pricing on this accepted approach.

(R4, tab 150) This REA, just as the one previously submitted on 15 June 2004, also did not mention mutual mistake with regard to pricing the launches under the contract or as theory of recovery.

49. The record further reflects that the parties continued to negotiate while preparing for the upcoming GPS mission. On 19 June 2006, the parties executed a Memorandum of Understanding (MOU) whereby they agreed to enter into a subsequent contract which became EELV Launch Capability Contract (ELC) FA8816-06-C-0001. The MOU and resultant contract, which are part of the record in these appeals, read as follows in pertinent part:

6. **ILS Contract Requirements**

- a. The parties agree that Boeing's Requests for Equitable Adjustments (REAs) for GPS IIF-1, GPS IIF-5, GPS IIF-9 and GPS IIF-10 will be removed from this contract negotiation and promptly addressed in a manner consistent with the requirements of the contract. The next GPS IIF mission will not be ordered before the REAs for GPS IIF-1/5/9/10 are resolved. Nonetheless, Boeing will include the appropriate consideration for GPS IIF-1/5/9/10 in the credit/consideration provided to the Government under this Contract. These values must be agreed upon by the parties.

- b. Boeing will not be bound by the price in the ILS contract for the SBIRS GEO-3 mission.

(R4, tab 160 at 5)

50. By letter dated 15 September 2006, Boeing proposed non-binding mediation to settle the REA for increased payload weight for the GPS and SBIRS-GEO missions (R4, tab 164).

51. Appellant ULS became the successor in interest to Boeing under the contract as of 1 December 2006 (compl. and answer ¶¶ 68, 69).

52. By letter dated 18 January 2007, government counsel responded to Boeing's 19 August 2005 REA, declining it and Boeing's request for non-binding mediation. The government, for the first time, based the denial on the previous release language contained in Modification No. P00057, in which the parties mutually agreed to release each other from claims, etc., arising under or relating to the EELV program from October 1998 through 16 October 2003. As the GPS IIF satellite weight growth issues that spurred the REA occurred prior to 16 October 2003, the government concluded that the REA lacked merit. (R4, tab 168)

53. Boeing responded through counsel, by letter dated 12 February 2007, disagreeing with the government's position. Boeing argued that the weight issues arose after 16 October 2003 as well as the issuance of the delivery order for the GPS missions (DO 0086), which was issued on 18 March 2005. Thus, Boeing contended that the release was inapplicable to the REA and remained open to the dispute resolution process. (R4, tab 169)

54. By letter dated 17 August 2007, the CO advised Boeing that its 19 August 2005 REA was denied in its entirety (R4, tab 171). Boeing responded, by letter dated 6 September 2007, disagreeing with the decision and vowed to file a certified claim "in the near future" (R4, tab 173).

55. On 17 September 2007, Boeing informed the government that it had received the proposed delivery order and modification relating to the GPS IIF-5 mission and could not execute the proposed contract documents in their current form, as they did not preserve Boeing's REA/claims. The letter also alerted the government to the joint venture agreement between Boeing and Lockheed Martin that spawned the United Launch Alliance (ULA). As the ILS contract had yet to be formally novated, Boeing would remain the contractor and ULA would be Boeing's subcontractor. (R4, tab 175)

56. The parties communicated back and forth throughout the month of September 2007 with no resolution to the GPS IIF-5 mission (R4, tabs 176-77).

57. By letter dated 8 October 2008, ULS, an authorized agent under limited power of attorney for Boeing Launch Services, notified the CO that it would accept the order for GPS IIF-5 mission (DO 0111) and Modification No. P00118. ULS added:

[W]e had hope that the issues involving the payload increase on the GPS missions would be resolved prior to the issuance of this order. Since we have been unable to identified [sic] a mutually acceptable closure resolution, we will accept this order and commence work on GPS IIF-5 prior to final resolution of these disputed GPS orders. Our acceptance of this order will not constitute a waiver of any of our rights under this contract or the ELC contract pending final the [sic] resolution of this matter.

(R4, tab 179) Accordingly, on 22 October 2008, the parties executed DO 0111 and Modification No. P00118, with Boeing reserving its right to pursue a claim for additional costs in connection with the delivery order (R4, tab 181 at 2, tab 182 at 3).

58. On 23 December 2008, ULS submitted a certified claim that adjusts the contract price by [REDACTED] million for the GPS IIF-1 and GPS IIF-5 launches based on Boeing's actual performance costs (R4, tab 183; compl. ¶¶ 4, 76).

59. By letter to ULS dated 16 March 2009, the Air Force CO issued a final decision denying the claim (R4, tab 185).

60. By letter dated 12 June 2009, appellant timely filed its notice of appeal with the Board. That appeal was docketed as ASBCA No. 56850. The complaint alleged four counts: (I) changes; (II) breach of contract; (III) mutual mistake regarding the commercial demand for EELV launch services; and (IV) unconscionably low prices. The government raised the following affirmative defenses: (I) accord and satisfaction; (II) release; and (III) estoppel. (ASBCA No. 56850, Bd. corr. file)

61. On 25 September 2009, the Air Force issued DO 0112 for the launch of GPS IIF-9 (R4, tab 186) and Modification No. P00138 (R4, tab 187). The accompanying letter from the CO indicated that both documents were "fully executed by the contracting officer" and the government expected the mission to be flown on a medium launch vehicle. The CO stated further that "you may voluntarily choose to design a mission specification which exceeds those parameters...as long as it meets the ultimate performance goals of safely delivering the satellite to the desired orbit." Review of mission specifications, the CO cautioned, "does not constitute direction or consent by the Government to change the

contract terms or authorize any equitable adjustment.” Finally, the CO stated the following:

4. The Government has never acknowledged any GPS IIF mission delivery order under this contract, including this one, has required a change of contract terms which would support a claim for additional costs and the Government does not waive any defenses to any claim that might be submitted.

(R4, tab 188)

62. By letter dated 28 October 2009, ULS reiterated its position on executing the mission with the heavier payload and notified the CO that it intended to proceed with the launch under the Disputes clause (R4, tab 190). On 9 September 2010, appellant submitted a certified claim in the amount of [REDACTED] million to the government to re-price the GPS IIF-9 launch based on appellant’s actual performance costs (supp. R4, tab 207).

63. Appellant filed a notice of appeal with the Board dated 2 March 2011, citing the CO’s failure to issue a final decision within a reasonable time (deemed denial). The Board docketed the appeal as ASBCA No. 57542.

64. Appellant also submitted a claim dated 3 March 2011 in the amount of [REDACTED] million to the CO “solely to protect [ULS’s] ability to pursue a claim based on mutual mistake relating to the launch of GPS IIF-1 [[REDACTED] million] and GPS IIF-5 [[REDACTED] million] payloads under the ILS Contract’s Disputes clause and the CDA.” By letter dated 29 April 2011, the CO denied the claim. On 22 June 2011, ULS filed a timely appeal with the Board, which was docketed as ASBCA No. 57661. The “protective” appeal was consolidated with ASBCA Nos. 56850 and 57542 and, as such, the Board incorporated the pleadings into the new appeal. (ASBCA No. 57661, Bd. corr. file)

### *The Hearing*

65. Both parties testified that generally, neither party would launch a mission greater than a low risk. Specifically, appellant’s Chief Operating Officer testified that “Low risk is elevated above the baseline. But we consider it acceptable. We fly missions with rockets that have low-risk items.... Medium is the next elevation of risk, and it is the elevation at which we will not fly a mission.” (Tr. 3/139) Additionally, Lt Gen Arnold testified that “we would not launch a primary payload, read that as an operational payload, at greater than a low risk” (tr. 8/156).

### *Expert Testimony*<sup>7</sup>

66. Appellant offered the expert testimony of Lawrence J. Ross, former director of NASA's Glenn Research Center. Mr. Ross was admitted as an expert in launch vehicle system development and management without objection (tr. 6/23). He concluded the following:

- In the face of the 40% increase in spacecraft weight, the Delta IV (4,0) was no longer suitable for the GPS-IIF mission.
- There were no acceptable measures that would sufficiently improve the performance capability of the (4,0) that would render it suitable for the mission.
- The Air Force's recommended mission and vehicle changes failed to comply with the ILS Contract's requirements, and they created significant technical and programmatic risk.
- Boeing's decision to launch the GPS-IIF satellites on the Delta IV (4,2) was the correct one and is consistent with prudent program management standards in the launch industry.

(App. supp. ex. 481) He added that although both parties believed that a waiver from the Range was necessary to fly a Northeast trajectory using a (4,0), he opined that it was highly unlikely that a waiver would have been granted due to the availability of a safer alternative (i.e. use the (4,2) on a safer Southeast trajectory). Finally, and possibly most importantly, he stated that "launch vehicles never fly exactly as you expect them to or as you predict them to" (tr. 6/31). The Delta IV system had only flown three times, he noted, "twice in a configuration that was originally anticipated for GPS IIF and one launch in a configuration with the solid rocket motors [(4,2)]. So, the Delta IV would be considered an immature vehicle with unknown risks and still-to-be-proven reliability." (Tr. 6/48) In the event that the waiver would not have been granted, he added that it would occur close to the projected launch date and to reintegrate the mission on a (4,2) would prove costly and disruptive not only to the GPS customers but the entire Delta IV EELV program as a whole. Thus, Mr. Ross concluded:

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<sup>7</sup> Appellant also offered the expert testimony of Mr. Avram Tucker (forensic accountant), who opined, *inter alia*, that the pricing of the previous NROL-22 and WGS missions were not limited to incremental costs. While this report (app. supp. ex. 492) and subsequent testimony is interesting, it does not aid the Board in reaching the ultimate decision below.

The changes that the Air Force analyzed and presented to General Arnold did not rectify that shortfall and did not comply with the requirements of the contract, and in some way each of them added significant technical and programmatic risk. And I think that Boeing's decision to make the assignment of a (4,2) vehicle to the GPS IIF satellites was indeed the correct one. It was consistent with prudent program management standards in the launch industry.

(Tr. 6/63-64) We find this testimony credible.

67. The government offered Manuel A. Landa, of the Aerospace Corporation as an expert in launch vehicle performance analysis and mission plan verification. As appellant interposed no objection, Mr. Landa was admitted as an expert in the above-mentioned areas (tr. 12/113). Mr. Landa was an Aerospace employee and was part of the team that completed the original evaluation of the performance capability of the (4,0) with regard to the GPS satellites in 2004. Additionally, he was asked to reevaluate the analysis that was done in 2004 for purposes of the hearing in the above-captioned appeals and prepare a report (tr. 12/115). Mr. Landa opined that the (4,0) configuration had adequate performance to deliver the GPS IIF satellite into the desired orbit if flown on a Northeast trajectory. The Ec values were within the wing commander's waiver authorization limits, if required and the trade-offs presented no significant risks, thus concluding that launching a (4,0) on a Northeast trajectory presented a low risk. (Supp. R4, tab 202) We find this testimony not as persuasive as Mr. Ross' in light of the other testimony and evidence contained in the record that demonstrate that launching the increased payload on a (4,0) rocket configuration on a Northeast trajectory was not a low risk.

68. The government also offered the expert report of Roger DeVivo, as a "technical expert in all aspects of flight safety analysis of launch operation at the Eastern Range including, Range Safety policy and requirements to obtain flight plan approval and waivers for launch." He opined that "waivers would have been required to the range safety requirement that the collective mission risk should be no greater than 30 in a million for the GPS IIF-1 and IIF-5 missions and that it was extremely likely that these waivers would have been approved." (Supp. R4, tab 196 at 7-8) We find this report useful, but limited to the projected approval/disapproval of the launch waiver, thus somewhat helpful in determining the reasonableness of appellant's actions, but not helpful to resolve the issue of the existence of a change under the contract. Moreover, Mr. DeVivo did not testify at the hearing, leaving the Board to interpret his report as submitted.

69. Appellant also presented expert testimony from Brig Gen J. Gregory Pavlovich (USAF, Ret.), the former Commanding Officer of the Logistics Group of the 45<sup>th</sup> Space Wing at the Eastern Launch and Test Range (Eastern Range) from 1996 through 1998. As the former Commanding Officer, Brig Gen Pavlovich was the final decision authority for all

launches (tr. 5/165). Upon completion of *voir dire*, Brig Gen Pavlovich was admitted, without objection, as an expert in range safety criteria and public safety waivers at the Eastern Range (tr. 5/167). He explained the launch approval process as a “two plus years” campaign that would include all of the stakeholders working closely together to ensure that they are complying with the applicable mandatory regulations, specifically Eastern and Western Range 127-1 (EWR 127-1) Range Safety Requirements (*see* app. supp. ex. 302). He opined that “you should never plan a launch...knowing that you’re going to need to apply for a waiver,” because a “waiver, by its definition, is non-compliance with the regulation.” Moreover, he added, there is no guarantee that a waiver will be granted. (Tr. 5/171) He further added that a waiver would be needed to launch on a Northeast trajectory due to the fact that the Ec rates were above the acceptable level of risk to the public of  $30 \times 10^{-6}$  (or 30 casualties per 1 million people living in a populated area) as the casualty rate was listed in EWR 127-1, Section 1.4.1 (tr. 5/176). Specifically the Aerospace analysis of  $106 \times 10^{-6}$  and  $41 \times 10^{-6}$  and the Range Safety analysis showed a rate of 49.7 to  $73.7 \times 10^{-6}$ . Waivers, according to Brig Gen Pavlovich should only be granted under extremely rare and compelling circumstances, citing EWR 127-1 at Section 1.6.5.2.3. He added that deviations and waivers, under the applicable regulations found at EWR 127-1 at 1.6.5.2. and 2.5.6. are used when the mission objectives of the Range user cannot otherwise be achieved and because of the importance of safety, a program plan is not approved simply as a matter of convenience to the Range user if a “safer reasonable alternative exist[s].” (Tr. 5/187) We find this testimony extremely helpful in determining the risks associated with launching the GPS IIF satellites using the (4,0) configuration.

70. Both parties filed pre- and post-trial briefs and replies. However, the government did not address the affirmative defense of accord and satisfaction in any of its briefs. Only entitlement is before the Board.

### DECISION

Appellant’s complaint alleges the following: Count I – appellant alleges that it is entitled to an equitable adjustment pursuant to the Changes clause of the ILS contract resulting from the increased weight of the GPS IIF payloads which is measured by its cost to launch those payloads; Count III – appellant is entitled to relief based upon a mutual mistake regarding the number of launches to be expected in pricing the ILS contract; and Count IV – appellant is entitled to relief based upon a constructive change to the contract resulting from “grossly inadequate estimates of the commercial market that resulted in an unconscionable price for launch services in the ILS contract.”

The government counters that appellant failed to meet its burden of proving that there was a constructive change; specifically that the provisions cited are not applicable to the dispute at bar; appellant’s own analysis demonstrated that a Delta IV (4,0) Medium was acceptable and that the requirement could be met without a change in performance; and that witness testimony showed that the decision to use a Delta IV + (4,2) Medium was

driven by financial considerations. In the alternative, the government contends that any equitable adjustment should be calculated on the incremental price of the work and not a complete re-pricing of the work. The government also believes that the release contained in Modification No. P00057 bars appellant's claims. Also, the government argues that appellant is estopped from asserting claims based on weight because it relied to its detriment on representations that the performance margin was available for payload weight growth. Finally, the government avers that appellant is not entitled to reformation of the contract due to mutual mistake or unconscionability. Appellant replies in opposition challenging the government's position as well as the estoppel issue, which it contends was first advanced in its brief to the Board.

### *Count I—Change/Equitable Adjustment*

Appellant contends in its complaint and subsequent briefs that it is entitled to an equitable adjustment pursuant to the Changes clause of the ILS contract resulting from the increased weight of the GPS IIF payloads, which is appropriately measured by the existing commercial market for launch services (compl. at 53). Further, as the payloads were no longer considered "small," they had to be launched using a different and more expensive vehicle, thus necessitating a change to the contract price for launch services (app. br. at 3). The government counters that appellant failed to meet its burden of proving that the change in payload weight was a constructive change to the contract. Moreover, the government contends that there was no change to the contract in relation to the weight of the GPS IIF payload because appellant proposed that its Delta IV Medium rocket could carry the satellite at a weight even greater than the weight at issue and the contract expressly permitted the Air Force to increase the payload weight up to the capability of the rocket appellant proposed. (Gov't br. at 2)

Although the subject matter of these appeals involve all sorts of technical jargon regarding rocketry and rocket science, range waivers, etc., the answer to this dispute lies in something far less complicated – the contract itself. The parties contracted for launch services in order to place certain payloads into their respective orbits under a commercial items contract. The payloads were categorized by size. The government did not procure a specific rocket to meet that requirement, although appellant informed the government that it would use the (4,0) to accomplish the mission for the small payload. The contract pricing was consistent with this approach. (Finding 17) The record reflects, and the parties agree that the payload weight for the GPS mission grew from the original requirement to the actual launch weight due to a government-driven modernization program (finding 30). As the contract put the GPS mission in the "small" category for lift vehicles, the 40% weight increase moved the payload up into the medium class. Thus, the government's action increasing the payload weight equated to a change to the contract.

The next question that follows is whether such a change is compensable under the terms contract. We conclude in the affirmative. The evidence provided by appellant

showed its prices were based on payload class and most importantly, the contract classified payloads by size (finding 17). As the weight of the GPS satellite increased, the payload moved into a new class, from small to medium. The government does not dispute that the satellite increased in weight, it merely argues that appellant was required to launch up to the full payload capacity of the (4,0) it proposed ([REDACTED]) based on its interpretation of Section 4.0 of the SPRD which would entitle the Air Force to use margin for payload weight growth over the contract “threshold” amount of 2,675 pounds (gov’t br. at 47-8). This argument misses the mark. Section 4 is entitled “System Objectives” and clearly states that “the system is not required to meet these objectives.” Thus by the plain language of this provision, the government’s arguments fail.

The record further demonstrates that the Delta IV + (4,2) was the reasonable alternative based on the change (increased weight), regardless of the government’s belief that appellant was trying to recapture its losses under the contract (assured lift capability was below the weight of the GPS IIF-1 payload). Appellant reasonably concluded, based on the technical analysis provided in the record that the more powerful Delta IV + (4,2) was the correct decision (finding 46). The government’s contention in its brief that appellant preempted the process by unilaterally deciding to launch on the (4,2) is somewhat compelling. However, this argument ignores the fact that (a) the original weight of the satellite increased, and most importantly, (b) the government ordered the launch, thereby necessitating the commencement of the launch process. Appellant was now faced with a dilemma, start the multi-year process of preparing to launch with known performance issues and risk failure; or go with a safer/lower risk alternative that met the performance requirements of the contract at a higher price. For the government to argue that appellant basically took the option of failure away by taking unilateral action is not persuasive. The risks were real enough that both sides concluded, prior to the claim being filed, that a waiver from the Range would have been necessary. Appellant’s actions were reasonable given the changed circumstances and we are not persuaded by the government’s arguments to the contrary.

Moreover, we cannot ignore the dangers involved in the nature of the services procured under this contract. As the record reflects through the testimony at the hearing from both sides, safety is always paramount. In the event of a failure, the risk includes not only damage to a multi-million dollar asset and possible programmatic delays, but also the possibility of expected casualties (i.e. human deaths). Thus, the multiple analyses of the numbers relating to performance margins and expected casualty rates further demonstrate that the parties would not risk a launch if those rates were too high or margins too thin to safely proceed with the mission. Moreover, there was a safer alternative—the Medium (4,2); the only problem was that it cost more and the parties could not agree on how to price those costs associated with the change. As the parties both indicated that they would not launch a mission higher than a low risk (finding 65) we conclude that appellant’s position was reasonable. The issue of whether or not a waiver was required or obtainable does not change our view.

With regard to what appellant is allowed to recover due to this change, the government still contends that recovery is limited under the Changes clause to a price increase based on the cost of performing the changed work only (gov't br. at 60). Even though we covered this argument in our earlier decision and this decision only decides entitlement, the government goes even further to argue that the parties' conduct during the negotiation of the previous two missions (NROL and WGS) showed that they intended that the contractor would be compensated based on its increased costs to perform the changes, plus profit (gov't br. at 63). However, the government would like the Board to find that the plain language in the contract does not exist as well as its previous actions with regard to the other missions that experienced payload weight growth. As we said in our previous summary judgment decision in these same appeals:

Although the term "equitable adjustment" has been considered a term of art, that conclusion arises from its use in non-commercial items contracts where the government has a right to direct a unilateral change. In that context, the term is generally limited to requiring those "corrective measures utilized to keep a contractor whole when the Government modifies a contract." *Pacific Architects & Engineers, Inc. v. United States*, 491 F.2d 734, 739 (Ct. Cl. 1974). However, this customary understanding of the term need not be followed in the event of a significant change in context. *General Builders Supply Co. v. United States*, 409 F.2d 246, 249-50 (Ct. Cl. 1969). The Changes clause in this commercial items contract dictates that it can only be changed with the agreement of the parties. It requires the parties to negotiate an equitable adjustment in the event they agree upon a change causing an increase or decrease in contract costs, performance time, or that otherwise affects any other contract provision, but it does not define the limitations of the equitable adjustment. The government cites no authority defining the term in this context.

Appellant has produced evidence that the parties negotiated equitable adjustments under this contract based upon changed market conditions, and not merely upon changed costs, showing the term was intended to permit such action. The government contends that we must ignore this evidence, relying upon the Parole Evidence Rule. That rule bars the use of extrinsic evidence to interpret an integrated agreement containing terms that are clear and unambiguous. *Barron Bancshares, Inc. v. United States*, 366 F.3d 1360, 1375 (Fed. Cir. 2004). We find the term to be undefined and unclear in

this context and therefore appellant's course of performance evidence to be relevant. *See Id.* (recognizing that evidence of course of performance is relevant to interpret an ambiguous contract).

*United Launch Services*, 14-1 BCA ¶ 35,511 at 174,067. Thus we have already considered and rejected the government's arguments with regard to the limitation of recovery under the contract. Once the government changed the contract, the basis for negotiation opened up and the commercial value of the changed launch services became a reasonable factor in determining the final agreement between the parties.

### *Counts III and IV*

With regard to Count III of appellant's complaint (mutual mistake about the commercial demand for EELV launch services) and Count IV (unconscionably low prices), we need not reach a decision on these counts as well as the government's motion to strike Count III because appellant has prevailed on Count I. Accordingly, ASBCA No. 57661 is rendered moot.

### Affirmative Defenses

#### *Accord and Satisfaction*

Although initially plead as an affirmative defense in its answer, the government did not address this defense in its post-trial briefs (finding 70). Accordingly, we consider the government to have abandoned this issue. *See States Roofing Corp.*, ASBCA No. 54860 *et al.*, 10-1 BCA ¶ 34,356 at 169,664 (failure to address release of claims contention in its post-hearing brief equated to abandonment of the issue).

#### *Modification No. P00057 Release Language*

In interpreting a release, general principles of contract interpretation apply. *Optex Systems, Inc.*, ASBCA No. 58220, 14-1 BCA ¶ 35,801 (citing *Information Systems & Networks Corp. v. United States*, 68 Fed. Cl. 336, 341 (2005)). "[T]he inquiry regarding releases should focus on the intent of the parties at the time the release is executed and this intent should be sought from the whole and every part of the instrument." *Futuronics Corp.*, ASBCA No. 29324, 85-2 BCA ¶ 18,137 at 91,045. If the provisions of a release are "clear and unambiguous, they must be given their plain and ordinary meaning." *Bell BCI Co. v. United States*, 570 F.3d 1337, 1341 (Fed. Cir. 2009) (citations omitted).

Conversely, if the words defining the scope of the release are ambiguous in their application to a contractor's claim, courts and boards will ascertain the parties' intent by examining the parties' conduct leading up to the modification. *R.P. Richards Constr. Co.*

v. *United States*, 51 Fed. Cl. 116, 122 (2001) (additional evidence can be considered when there is ambiguity in the terms of the agreement); *Chantilly Constr. Corp.*, ASBCA No. 24138, 81-1 BCA ¶ 14,863 at 73,397 (modifications' scope did not include contractor's claims for delay and impact costs where such costs were not considered by the parties during negotiations leading up to the modifications).

The government contends that the release language in Modification No. P00057 is not ambiguous and the subject claims are covered by the release because the event that formed the basis of the claims occurred prior to 16 October 2003 (gov't br. at 74).<sup>8</sup> Appellant counters that because the government had not ordered the GPS IIF missions and had not formally notified appellant of the new weight as of the date of Modification No. P00057, the release, by its own terms, does not apply. We agree.

As a general matter, we find it difficult to conclude that the release would cover the subject claims that arose from an order that was clearly placed outside the date specified in the release. Although there is evidence that the possibility of a dispute arising out of the emails occurring in the background as early as 30 September 2003 (finding 25), the official confirmation/notice of the satellite weight was 29 January 2004 (finding 30) more than 3 months after the date covered by the release. The parties' conduct after issuance of the order emboldens our opinion. When the first version DO 0086 was sent over for review on 28 June 2004, more than 7 months after Modification No. P00057, appellant immediately noted the release language and requested its removal (finding 41). The CO's conduct revealed that she thought that the potential for a claim was still a viable option, and attempted to protect the government from future claims arising out of the mission. The record reflects that the parties had a spirited back-and-forth on the issue with the government ultimately removing the language and indicated that it would consider any supported request for equitable adjustment that Boeing submits (finding 43). At no time prior to 18 January 2007 did the government raise the issue of release with regard to claims for increased costs due to weight (finding 52). We conclude that the governments release language argument is without merit.

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<sup>8</sup> Maj Gen Susan Mashiko, the Air Force officer who later became the system director for the EELV program at the time Modification No. P00057 was executed, testified "My intent was for the language to be as broad as possible and to encompass everything" (tr. 8/86). However, she later testified that she could not recall if she told the negotiating team that the release should cover the GPS IIF missions (tr. 8/135). Additionally, Lt Gen Arnold, testified with regard to the parties' intent to bar a future REA under Modification No. P00057, "It wouldn't have been our intent because it wasn't an issue" (tr. 8/264).

## *Estoppel*

The government contends that appellant is estopped from asserting a claim for the weight growth because the Air Force relied to its detriment on Boeing's representations that the performance margin was available for payload weight growth and that it could launch on a Northeast ascending node trajectory (gov't br. at 58). Specifically, the government argues that appellant's conduct "in proposing a [REDACTED] lift capability, producing a study that confirmed a [REDACTED] lift capability, and then approving a not-to-exceed weight of 3758 pounds, based on a northeast ascending node trajectory," induced the Air Force to approve a GPS IIF Modernization program above the SPRD threshold weight, but well within the launch capability of the (4,0) (*id.* at 59).

Appellant counters at the outset, that the government did not plead its current theory of estoppel (the government's answer addressed entitlement based on the change in payload class while the current defense as briefed focuses on entitlement based on the need to use the Delta (4,2)) as an affirmative defense (app. reply br. at 25). However, the government's answer reads in relevant part:

2. Appellant represented to the Air Force that it would launch the GPSIIF space vehicle on a medium launch vehicle.

3. Appellant represented to the Air Force that the extra performance capability of a medium launch vehicle was available for the Air Force to accommodate increases in the space vehicle weight.

(Answer at 55) Thus, as demonstrated above, appellant's contention is not well founded.

Appellant further alleges with regard to the merits of the government's estoppel defense that it did not mislead the government because the document that the Air Force relied upon to base its argument, the Interface Requirements Specification (IRS), had nothing to do with the launch services to be provided to the Air Force. In fact, the IRS was "a GPS Program Office document between the GPS Program Office and the GPS satellite contractor," not the launch vehicle contractor (Boeing Launch Services/ULS) or the EELV SPO PCO (the government), "and it did *not* specify launch requirements for purposes of the ILS Contract" (app. reply br. at 25).

Equitable estoppel is an affirmative defense. *See Foote Mineral Co. v. United States*, 654 F.2d 81, 86 (Ct. Cl. 1981). As the party raising the defense, the government bears the burden of proof. *See United Technologies Corp., Pratt & Whitney*, ASBCA No. 47416 *et al.*, 06-1 BCA ¶ 33,289 at 165,050. Equitable estoppel requires: "(1) misleading conduct, which may include not only statements and actions but silence and inaction, leading another to reasonably infer that rights will not be asserted against it; (2) reliance upon this conduct; and

(3) due to this reliance, material prejudice if the delayed assertion of such rights is permitted.” *Mabus v. General Dynamics C4 Sys. Inc.*, 633 F.3d 1356, 1359 (citing *Lincoln Logs Ltd. v. Lincoln Pre-Cut Log Homes, Inc.*, 971 F.2d 732, 734 (Fed. Cir. 1992)).

The government argues that appellant proposed a (4,0) rocket with the launch capability of [REDACTED], and the government believed that it could use that margin for payload weight growth. Specifically, the government contends that appellant performed studies which determined that the (4,0) could launch a GPS IIF of [REDACTED] on a Northeast trajectory. Appellant’s conduct in proposing a [REDACTED] lift capability, producing a study that confirmed a [REDACTED] lift capability, and then approving a not-to-exceed weight of 3,758 pounds, the government avers, induced the government to approve a GPS modernization program above the SPRD threshold weight but well within the launch capability of the (4,0). Thus, the government concludes that appellant’s misleading conduct prejudiced the government by “creating a putative liability of [REDACTED] million without giving the Air Force an opportunity to evaluate whether it would agree to be so obligated.” (Gov’t br. at 59-60)

The government’s arguments are not persuasive when weighed against the record in these appeals. First, the document that the government bases its argument on, the IRS, was not between the Air Force and appellant (i.e. Boeing Launch Systems or ULS), but between the GPS program office and the GPS satellite contractor. The contract that is the subject of these appeals is the launch services contract. During the formation phase as the acquisition strategy was derived, the record demonstrates that there was extensive “give-and-take” with regard to the terms and conditions of the resultant commercial items contract. (R4, tabs 20, 21; app. supp. ex. 52) At no time during the solicitation phase could we conclude that appellant’s actions were misleading. In fact, during the drafting stage, Boeing treated the government like a commercial customer, and as such forwarded a copy of its commercial launch service agreement, which included an “Alternative Launch Vehicle” clause which would have allowed the customer (here, the government) to pre-negotiate prices based on launch vehicles (app. supp. ex. 8 at 23; tr. 2/55-57). The government ultimately rejected this clause (tr. 2/56). The contract, awarded under the commercial items provisions of FAR Part 12, was to deliver a mass (small satellite weighing 2,675 pounds) into the desired orbit. How this was to be accomplished was up to the contractor, as the contract did not require a certain launch vehicle. Thus, under the contract, the government cannot say that it was misled by appellant’s decision to use a rocket with certain capabilities because there was no contractual requirement for Boeing to provide a vehicle with a performance capability of [REDACTED]. Accordingly, as the government cannot meet the first prong of the aforementioned *Mabus* test, the remainder of the government’s contentions also fail.

CONCLUSION

For the reasons set out above, ASBCA Nos. 56850 and 57542 are sustained and ASBCA No. 57661 is dismissed as moot. The matters are remanded to the parties for negotiation of quantum consistent with this decision.

Dated: 29 June 2016

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OWEN C. WILSON  
Administrative Judge  
Armed Services Board  
of Contract Appeals

I concur

I concur

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

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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 Nos. 56850, 57542, 57661, Appeals of United Launch Services, LLC, rendered in conformance with the Board's Charter.

Dated:

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