

**ANALYSIS OF AGREEMENT CONTAINING CONSENT ORDER  
TO AID PUBLIC COMMENT**

*In the Matter of The Boeing Company, Lockheed Martin Corporation, and United Launch Alliance  
File No. 051-0165*

**I. Introduction**

The Federal Trade Commission (“Commission”) has accepted, subject to final approval, an Agreement Containing Consent Order (“Consent Agreement”) from The Boeing Company (“Boeing”), Lockheed Martin Corporation (“Lockheed”), and United Launch Alliance L.L.C. (“ULA”). The purpose of the proposed Consent Agreement is to remedy the anticompetitive effects resulting from the formation of ULA, a joint venture of Boeing and Lockheed that will provide launch services to the Department of Defense (“DoD”) and other U.S. government customers, that are not necessary to achieve the national security benefits that DoD believes will flow from the creation of ULA. The proposed Consent Agreement requires that: (1) ULA cooperate on equivalent terms with all providers of government space vehicles; (2) the space vehicle businesses of Boeing and Lockheed provide equal consideration and support to all launch services providers when seeking any U.S. government delivery in orbit contract; and (3) Boeing, Lockheed, and ULA safeguard competitively sensitive information obtained from other providers of space vehicles and launch services.

The Consent Agreement has been placed on the public record for 30 days for receipt of comments by interested persons. Comments received during this period will become part of the public record. After 30 days, the Commission will again review the Consent Agreement and the comments received, and will decide whether it should withdraw from the proposed Consent Agreement or make it final.

Pursuant to a Joint Venture Master Agreement, dated May 2, 2005, Boeing and Lockheed agreed to form a joint venture to be called ULA (“Proposed Joint Venture”). The Proposed Joint Venture would consolidate manufacturing and development of Boeing and Lockheed’s Expendable Launch Vehicles (“ELV”). Sales of launch services to the U.S. government will also be merged into ULA. Boeing and Lockheed will not exchange any cash in the transaction, but each party’s contributed businesses are valued in excess of \$530.7 million. The Commission’s complaint alleges that the Proposed Joint Venture would violate Section 7 of the Clayton Act, as amended, 15 U.S.C. § 18, and Section 5 of the Federal Trade Commission Act, as amended, 15 U.S.C. § 45, by substantially lessening competition in the U.S. markets for government medium to heavy (“MTH”) launch services and government space vehicles.

## **II. The Parties**

Boeing maintains its headquarters in Chicago, Illinois. It is the world's largest aerospace company and the second largest supplier to the Department of Defense. Boeing manufactures and sells MTH launch services to the U.S. government on its two ELVs, the Delta II and Delta IV. Delta II provides medium lift capability; Delta IV provides heavy lift capability. Boeing is the third largest supplier of government space vehicles.

Lockheed, based in Bethesda, Maryland, is the largest defense contractor in the United States. Lockheed provides MTH launch services to the U.S. government with its Atlas V ELV. Lockheed is the largest supplier of government space vehicles.

## **III. Government MTH Launch Services and Space Vehicles**

Government MTH launch services are a relevant product market for the purposes of assessing the likely competitive effects of the Proposed Joint Venture. Launch service providers deliver space vehicles (i.e., satellites, interplanetary spacecraft, and other payloads) into earth orbit or beyond into outer space. Payloads in excess of 4,150 pounds require, at minimum, a medium lift launch vehicle to attain low earth orbit, the lowest sustainable orbit. MTH launch vehicles are generally based on a common vehicle configuration, i.e., the Delta IV and Atlas V, and are customized to adjust lift capability by adding "strap-on" motors or additional booster engines. There is no alternative technology currently available to deliver satellites and other payloads to space in the medium and heavy weight classes. Light launch vehicles cannot be "scaled-up" with strap-on motors or booster engines to increase lift capability. Further, with the U.S. government's demand for communication and reconnaissance capabilities increasing, space vehicles are not expected to become lighter in the future. Accordingly, the U.S. government has no alternatives for the functions performed by space vehicles and no alternative technology to deliver MTH payloads to space.

Government space vehicles are a second relevant product market for the purposes of analyzing the competitive effects of the Proposed Joint Venture. The United States government purchases space vehicles for a multitude of unique (and often classified) applications, including military communications and navigation, reconnaissance, atmospheric observation, and scientific exploratory missions, among other things. Other forms of communication, navigation, reconnaissance, and scientific observation are not substitutes for the unique capabilities of government space vehicles.

The relevant geographic market is the United States. Federal law and national security imperatives require that the U.S. government purchase MTH launch services and space vehicles from domestic companies.

The U.S. markets for government MTH launch services and government space vehicles are highly concentrated. In the U.S. government MTH launch services market, Boeing and Lockheed are the only competitors, and their consolidation will result in a monopoly. Space Exploration Technologies Corp. (“SpaceX”) is attempting to enter the MTH launch services market, but the timing of its possible entry and the reliability of its MTH launch vehicles is uncertain. Additionally, DoD and other government customers would require several validation launches before purchasing MTH launch services from SpaceX, further postponing the market impact of SpaceX’s potential entry. In the U.S. market for government space vehicles, three firms, Boeing, Lockheed, and Northrop Grumman (“Northrop”), account for the large majority of sales.

#### **IV. Entry**

Entry into the government MTH launch services market and the government space vehicle market is extremely difficult. For MTH launch vehicles and government space vehicles alike, design and development alone require many years and cost in excess of a billion dollars. Government space vehicles cost approximately \$1 billion and take approximately five years to produce. Moreover, because the costs of a launch failure or a space vehicle malfunction are extremely high in terms of dollars and delays in vital national security or scientific services, the U.S. government only procures MTH launch services and space vehicles from firms with an established track record for success. As a result, new entry is unlikely to reverse the anticompetitive effects of the Proposed Joint Venture.

#### **V. Competitive Effects**

DoD has contracted with both Boeing and Lockheed to provide MTH launch services through 2011. Under the current procurement program -- known as “Buy III” -- Boeing’s and Lockheed’s fixed costs are covered by DoD, and launch services are purchased at variable cost. The rationale for this program is grounded in a Presidential Decision Directive requiring the U.S. Government to maintain “assured access to space,” which is interpreted to require maintaining at least two independent MTH launch vehicle providers.

Despite the absence of current price competition under Buy III, significant anticompetitive effects, including the loss of non-price competition and the loss of potential future price competition, are likely to occur if the proposed transaction is consummated. Under Buy III, launches that are more than two years away may be awarded to either Boeing or Lockheed. As a result, each has an incentive to improve the capability and reliability of its launch services to increase the likelihood that DoD will award it future launches. In addition, Buy III expires in 2011, after which full price and non-price competition pursuant to DoD’s usual procurement process may be reinstated. Finally, the creation of the Proposed Joint Venture would deny the government the benefits of a competitive “down select” to either the Delta or

Atlas ELV if assured access to space is later determined not to require two separate families of launch vehicles.

National security issues, however, are also a vital element of an analysis of the Proposed Joint Venture. To understand the unique national security implications of the Proposed Joint Venture, the Commission has consulted closely with the DoD and other federal agencies.<sup>1</sup> Indeed, as the primary customer of government MTH launch services and space vehicles and the government agency ultimately responsible for the security of the United States, DoD's views on ULA were particularly significant. Under these unique circumstances, the Commission placed a great deal of weight on DoD's position as to whether ULA would benefit national security and whether the Commission should challenge the Proposed Joint Venture.

DoD has informed the Commission that the creation of ULA will advance U.S. national security interests by improving the United States' ability to access space reliably. DoD considers access to space "essential" given the military's increasing dependence on space-based reconnaissance, communication, and munitions-guidance systems. Maximizing the reliability of launch vehicles that provide access to space is of paramount importance to DoD. A single launch failure can result in the loss of a mission-critical payload and threaten military programs by delaying future launches until the cause of the failure is discovered and remedied.

ULA will improve launch vehicle reliability in several ways. First, the single ULA workforce will benefit from a launch tempo (the number of vehicles assembled and launched per year) greater than could be expected from the two separate Lockheed and Boeing workforces. A single workforce with more launch experience will be critical in minimizing mistakes and malfunctions that jeopardize mission success. In addition, integrating the two firms' complementary technologies will infuse each firm's launch vehicles with the technical improvements and innovations of its competitor, further enhancing the reliability of Atlas V and Delta IV. Under these unique circumstances, the increase in reliability can be recognized as an efficiency flowing from the joint venture.

After thorough review, DoD has determined that the national security benefits flowing from ULA would exceed any anticompetitive harm caused by the proposed transaction. DoD has expressed three competitive concerns, however, that are not intrinsically linked to ULA's national security benefits. These vertical issues are competitively significant because ULA's pricing will be regulated, rather than competitive, giving ULA the incentive to exert its monopoly power in related, but unregulated, markets. The first of DOD's concerns is that ULA will favor

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<sup>1</sup> See Letter from Michael R. Moiseyev, Assistant Director, Bureau of Competition, Federal Trade Commission, to Douglas P. Larsen, Deputy General Counsel (Acquisition & Logistics), Department of Defense, dated July 6, 2006, and Letter from Honorable Kenneth J. Krieg, Under Secretary of Defense for Acquisition, Technology & Logistics, Department of Defense, to Honorable Deborah P. Majoras, Chairman of the Federal Trade Commission, dated August 15, 2006.

its parents' space vehicle businesses to the detriment of other space vehicle manufacturers, such as Northrop. Today, competition between Boeing and Lockheed for launch services induces the companies to cooperate with other space vehicle suppliers, notwithstanding the fact that each has incentives to favor its own space vehicle business, out of fear that the other would cooperate and win the launch. The proposed transaction eliminates that threat, and, as a result, reduces the incentives for ULA to optimize its launch vehicles for use with Northrop space vehicles, to the detriment of Northrop and the government.

Second, DoD believes that Boeing and Lockheed may utilize their positions in the space vehicle market to raise barriers to entry in the government MTH launch services market. In this regard, one type of space vehicle procurement presents a problem. Occasionally, DoD requires a space vehicle supplier to select a launch service and provide one price for the space vehicle as well as the launch. In these so-called "delivery in orbit" procurements, DoD is concerned that Boeing and Lockheed will have an incentive to defend ULA's monopoly by refusing to consider on equal terms any other launch service competitors that may emerge, such as SpaceX.

Third, the creation of ULA increases the likelihood that competitively sensitive information from third parties will be disclosed among ULA, Boeing, and Lockheed in a manner that harms competition. For example, as vertically integrated suppliers, Boeing and Lockheed may have incentives to share confidential Northrop information obtained as a launch vehicle services supplier with their respective space vehicle businesses. Similarly, Boeing and Lockheed may have an incentive to share with ULA confidential information that their space vehicle businesses may learn from any future launch vehicle service competitors. This concern arises because third parties, such as Northrop, will no longer be able to utilize competition between Boeing and Lockheed in the MTH launch services market to negotiate the creation of firewalls and other protections for their confidential information.

## **VI. The Proposed Consent Agreement**

To allow the United States to obtain the national security enhancements offered by ULA, the proposed Consent Agreement does not attempt to remedy the loss of direct competition between Boeing and Lockheed Martin under these unique circumstances. Instead, the purpose of the proposed Consent Agreement is to address ancillary competitive harms that DoD has identified as not inextricably tied to the national security benefits associated with the creation of ULA. To ensure that the provisions of the proposed Consent Agreement are followed, it provides for a compliance officer who will be appointed by the Secretary of Defense. The compliance officer will have broad investigative and remedial powers and may interview respondents' personnel, inspect respondents' facilities, and require respondents to provide documents, data, and other information.

To alleviate DoD's concerns in the government space vehicle market, the proposed Consent Agreement requires ULA to cooperate on equivalent terms with all government space vehicle providers seeking to win U.S. government procurement contracts. Because a space vehicle and launch vehicle require significant integration to achieve successful placement of a space vehicle into orbit, space vehicle and launch services providers work closely together pursuant to teaming arrangements when seeking to win government contracts. Pursuant to the proposed agreement, ULA must provide all space vehicle suppliers with equal access to engineering resources, personnel, and technical information. These provisions ensure that ULA cannot give an unfair advantage to the space vehicle businesses of its parents during DoD's space vehicle procurement process.

The proposed Consent Agreement addresses DoD's concern that Boeing and Lockheed will refuse to support or deal with future competitors to ULA by requiring Boeing and Lockheed to provide equal consideration, information, and resources to any launch services competitors of ULA when bidding on a delivery in orbit contract. These provisions prevent Boeing and Lockheed from slowing or deterring entry into the MTH launch services businesses in order to protect ULA's monopoly status. To ensure the parties' compliance with this requirement, Boeing and Lockheed must create selection criteria and have those criteria approved by the compliance officer. Further, the proposed Consent Agreement prohibits Boeing and Lockheed from selecting ULA as a launch services supplier without the prior approval of the compliance officer.

To address DoD's concern that competitive harm may occur as the result of the exchange of confidential information, the proposed agreement forbids ULA, Boeing, and Lockheed from sharing third parties' competitively sensitive information. ULA must establish separate teams to support each space vehicle supplier's efforts to win government contracts and implement procedures, pursuant to the compliance officer's oversight, that will ensure that confidential information is not exchanged among the teams. Additionally, the order requires a number of prophylactic measures designed to ensure that confidential information is not exchanged between ULA and its parents. Pursuant to these provisions, ULA's facilities must be physically separate from those of Boeing and Lockheed, and employees must be able to access only the facilities of their respective employer. If ULA requires technical support from Boeing or Lockheed employees, these employees must sign confidentiality agreements, which must be provided to the compliance officer, agreeing not to disclose the confidential information of any space vehicle supplier teaming with ULA. In addition, for a one-year period, any such employee may not join or assist a Boeing or Lockheed project that is competing with a space vehicle supplier whose confidential information was obtained by the employee during work at ULA.

The purpose of this analysis is to facilitate public comment on the proposed Consent Agreement, and it is not intended to constitute an official interpretation of the proposed Consent Agreement or to modify its terms in any way.