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***Case No COMP/M.3856 -  
BOEING / LOCKHEED  
MARTIN / UNITED  
LAUNCH ALLIANCE JV***

Only the English text is available and authentic.

**REGULATION (EC) No 139/2004  
MERGER PROCEDURE**

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Article 6(1)(b) NON-OPPOSITION  
Date: 09/08/2005

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COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 09.08.2005

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In the published version of this decision, some information has been omitted pursuant to Article 17(2) of Council Regulation (EC) No 139/2004 concerning non-disclosure of business secrets and other confidential information. The omissions are shown thus [...]. Where possible the information omitted has been replaced by ranges of figures or a general description.

PUBLIC VERSION

MERGER PROCEDURE  
ARTICLE 6(1)b DECISION

**To the notifying parties**

Dear Sir/Madam,

**Subject: Case No. COMP/M.3856 - Lockheed Martin / Boeing / United Launch Alliance JV  
Notification of 04/07/2005 pursuant to Article 4 of Council Regulation No 139/2004<sup>1</sup>**

1. On 04.07.2005, the Commission received a notification of a proposed concentration pursuant to Article 4 of Council Regulation (EC) No 139/2004, by which the US companies Lockheed Martin Corporation (“Lockheed, LM”, USA) and The Boeing Company (“Boeing”, USA) notified their intention, within the meaning of Article 3(1)b of the EC Merger Regulation (“the Merger Regulation”), to acquire joint control of the undertaking United Launch Alliance (“ULA”, USA) by way of transfer of assets to a newly created company constituting a joint venture.
2. After examination of the notification, the Commission has concluded that the notified operation falls within the scope of Council Regulation No 139/2004 and does not raise serious doubts as to its compatibility with the common market and the EEA Agreement.

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<sup>1</sup> OJ L 24, 29.1.2004 p. 1.

## I. THE PARTIES AND THE OPERATION

3. **Lockheed Martin** provides research, design, development, manufacture, integration, operation and sustainment of advanced technology systems (including space launch systems and services), products and services worldwide. Lockheed markets and sells launch services to commercial customers through International Launch Services (“ILS”), a joint venture majority owned by Lockheed. ILS markets services based on the Atlas vehicle produced by Lockheed, as well as the Proton vehicle, produced by Lockheed with Russian partners in a JV called LKEI.
4. **Boeing** is active in the commercial aircraft, defence and space industry (including expendable space launch systems and services) and related services. Boeing markets and sells launch services to commercial customers through Boeing Launch Services (“BLS”). BLS markets services on the basis of the Delta vehicle. Boeing is also active on the market for commercial customers through Sea Launch, a JV together with Russian partners that produces its own launch vehicle, Zenit.
5. **ULA**, the JV, will provide space launch services to the US Government, and will combine the production, engineering, test and launch operations associated with U.S. government launches of Boeing Delta and Lockheed Atlas rockets. It will also supply Delta and Atlas rockets to BLS and ILS for commercial and non-US governmental launch services.
6. Lockheed and Boeing entered into a Master Agreement on 02/05/2005, pursuant to which they will establish a joint venture (“ULA”) which will provide space launch services to the US Government. Both parties will have equal membership interest in ULA and will have equal representation on the Board of ULA. The Master Agreement provides that decisions of the board will be taken by majority vote (with a quorum of four out of six directors and with at least two of them being Boeing-designated directors and two of them being Lockheed-designated directors. It may be concluded that ULA will be jointly controlled by Lockheed and Boeing. ULA will operate as a stand-alone-business and act as an independent market participant vis-à-vis third parties. ULA will operate for an indefinite duration. ULA will have sufficient funds, personnel and assets at its disposal to operate permanently and independently of Lockheed and Boeing. The JV will own and operate the main assets related to the Atlas (III and V) and Delta (II and IV) expendable launch vehicles, with its own design, manufacturing and launch operations personnel. Both parents will license the Atlas and Delta intellectual property to the JV. The parents will also not compete with the JV for US Government expendable launch vehicle business for a period of at least 5 years. ULA can thus be considered as a full-function joint venture within the meaning of Art. 3(4) of the ECMR.

## II. COMMUNITY DIMENSION

7. The combined aggregate world wide turnover of the undertakings concerned exceeds € 5000 million (Lockheed: € 28,560 million, Boeing € 42,170 million in 2004). The aggregate Community wide turnover of the parties exceeds € 250 million (Lockheed: € [...] million, Boeing € [...] million in 2004). The parties do not achieve more than two-thirds of their aggregate Community wide turnover in one and the same Member State. The notified operation, therefore, has a Community dimension according to Article 1(2) of the Merger Regulation.

### III. RELEVANT MARKETS

#### The relevant product market

##### A. Relevant product markets

8. The Commission has previously distinguished launch services for respectively Government (civil or military) applications and commercial applications, due to the fact that governments tend to give strong preference to national or at least regional launch service providers where applicable, which is not the case for commercial customers<sup>2</sup>. Accordingly, for launch services ULA only targets the US governmental market.
9. Within the field of commercial launch services, it has considered two product markets based on satellite mass and orbit. These two markets are (i) commercial launches of intermediary /heavy geosynchronous orbit (“GEO”) satellites with a minimum mass of 1800 – 2200 kg and (ii) commercial launches of all other satellites, including smaller GEO satellites and non- geosynchronous orbit (“NGSO”, i.e. low earth orbit) satellites. The market investigation has confirmed these market definitions.

##### B. Relevant geographic markets

10. In past decisions the Commission has found that the market for launch services for commercial customers is worldwide in scope as commercial customers source launches from suppliers on a worldwide basis. In contrast, government customers generally procure launch services from domestic or regional launch services providers where they exist, so that the geographic markets for government launches typically are national or regional in scope<sup>3</sup>. It can ultimately be left open whether the European governmental market is limited to the EEA, as in any case neither Lockheed nor Boeing has made sales of launch services to government customers in the EEA during the last five years.

### IV. COMPETITIVE ASSESSMENT

11. The creation of United Launch Alliance is not likely to have a direct effect on competition in the EEA, either for government or commercial customers, for the following reasons.

#### 1. ULA has no market presence for EEA customers

12. ULA will sell launches with the Atlas and Delta launch vehicles only to US governmental customers and not to any customers in the EEA. Any commercial

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<sup>2</sup> See Case No COMP/M.1879-Boeing/Hughes and Case IV/M.1564 – Astrolink. For example, the US government has never procured launch services from any non-US provider.

<sup>3</sup> See Case IV/M.1564 – Astrolink and Case No COMP/M.1879- Boeing/Hughes

launches<sup>4</sup> on Atlas and Delta on the worldwide market would not be marketed and sold by ULA but by Lockheed Martin (Atlas, through ILS) and Boeing (Delta, through BLS) respectively and independently. The parents' further launch service activities on the basis of the Proton and Sea Launch vehicles will not be contributed to the JV. The creation of the JV and the combination of the parents' activities in this new company as such therefore does not have a direct impact on competition in the EEA.

## **2. No risk of coordination between ULA's parents on the commercial market**

13. In the Commission's market investigation, the vast majority of launch service customers considered that the transaction will not have a negative impact on the market for commercial launch services. One customer and one competitor raised concerns related to potential coordination effects between the parties. There are no indications that the JV has the object of coordinating the parties' competitive behaviour. However, the Commission has assessed whether the creation of ULA may have the effect of coordination of the competitive behaviour between LM/ILS and Boeing/BLS as regards their launch service activities on the commercial market. As mentioned above, these activities remain outside ULA.
14. At the outset, it has to be mentioned that the JV only represents a small proportion of the parents' overall activities and of their activities in the sector. As regards their overall activities, the business contributed to the JV represents only [...]% of Boeing's and [...]% of LM's turnover. Taking their activities in the space sector as the reference point, the JV represents [...]% of Boeing's and [...]% of LM's turnover. On that basis, the JV would not seem to be of a gravity that would create in itself a strong incentive for an alignment of Boeing's and LM's business strategy for activities outside the JV.

### ***a) No possible coordination as regards launch families contributed to the JV***

15. There is no risk of appreciable coordination between the parents as regards the marketing of the Atlas V and Delta IV<sup>5</sup> launch vehicles on the commercial market, due to the absence of a competitive relationship between these launchers<sup>6</sup>.
16. Delta IV, Boeing's launch vehicle contributed to the JV, is not present on the market for commercial launches. It achieved only one commercial launch in 2001, which was its inaugural launch. Due to the significantly higher price of this launch vehicle compared to its competitors, it was withdrawn by Boeing from the commercial market in 2003 and was not used for any commercial missions since then.

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<sup>4</sup> European Government customers for the past five years have not considered either Boeing or Lockheed as a launch services provider.

<sup>5</sup> The Delta launcher family also comprises Delta II. However, this vehicle has a lower lift capability and is marketed for NGSO missions only.

<sup>6</sup> The parties further indicated that any hypothetical exchange of information between the parties through ULA with the aim of coordination would be excluded as there are contractual obligations to ensure that competitively sensitive information received by ULA concerning one party's launches is not communicated to the other by firewall policies to be instituted in ULA.

17. Delta IV can also not be seen as a potential competitor on the commercial market, as it is unlikely that it will re-enter the commercial market in the mid-term future. The price and cost difference between the Delta IV launchers and its main competitors on the commercial market such as Sea Launch, Proton and Ariane is significant and lies in the order of [...]%. Even if one would assume that all the projected cost efficiencies the JV is supposed to bring about according to the parties would materialise, they would not be sufficient to bring the costs for Delta IV down to competitive levels in the mid-term. The parties expect maximum cost reductions through the JV of up to [...] Mio EUR per launch. However, the cost of a Delta IV launch lies in the area of [...] Mio. EUR, compared to prices of 50-60 Mio EUR offered by competitors on the commercial market. On that basis, a viable re-entry of Delta IV on the commercial market appears unlikely in the mid-term future. [...]
18. The absence of Delta IV from the commercial market already eliminates a risk of coordination between the parties as regards Delta IV and Atlas on the commercial market. In addition, Atlas V, the contribution by LM to the JV<sup>7</sup>, currently has only a very marginal presence on the commercial market. Over the past 4 years, only [less than 10] launches were contracted on a Atlas V vehicle, out of a total of 80-100 launches on the worldwide market for commercial launches. This rather marginal market presence is mainly due to the higher cost and price, which lies in a range of [...]%, of Atlas launches compared to its main competitors on the commercial market such as Proton, Sea Launch and Arianespace. Atlas is therefore considered in the market as a premium product in particular with a promising record in terms of reliability. This is also reflected in the fact that LM offers Proton launches with Atlas as a backup package to guarantee launch schedules even in case of technical problems with Proton. In these scenarios, Atlas only has an indirect presence on the commercial market.
19. As there are no competitive relations on the commercial market between the product families contributed to the JV, no risks of competitive coordination arise in this respect<sup>8</sup>.

***b) No effect of coordination with regard to commercial launch activities with products outside the JV***

20. The JV also does not have the effect of coordination with regard to Boeing's and LM's activities on the commercial market on the basis of the Proton and Sea Launch vehicles. There are two conceivable hypothetical strategies that the parties could pursue in a coordinated manner: first, they could follow a strategy of jointly raising prices for all their offerings on the commercial market. Alternatively, they could adopt a strategy of undercutting prices up to a predatory level with the aim to marginalise or eliminate the remaining competitor on the commercial market, Arianespace, and thereafter to raise prices above competitive levels. With regard to

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<sup>7</sup> Previous generations of the Atlas launcher family such as Atlas II and III have been phased out.

<sup>8</sup> A third party had suggested that a concern could arise as ULA may be able to provide launches for the commercial market to ILS and BLS at marginal cost due to the fixed costs largely being covered by governmental missions. However, ILS and BLS already benefited from secured government missions separately pre-merger, and did not engage in such strategy in the past. In addition, the creation of ULA does not change the situation in this respect.

both strategies, the Commission considers that there would be no causal link between the JV and the potential adoption of any of these strategies, the success of which seems doubtful and speculative in the circumstances of this case.

*(1) Joint price increase strategy*

21. As regards a strategy of a joint price increase comprising the Proton and Sea Launch products, the creation of the JV does not in any respect increase the possibilities and opportunities for such coordination. All activities related to Proton and Sea Launch remain entirely outside the JV, and there are no increased opportunities for the parties to access business relevant information such as launch schedules, cost structures etc. with regard to these products.
22. The only hypothetical new channel of information would concern information on Atlas, which Boeing hypothetically could get access through the cooperation in ULA. However, the parties indicated that there are contractual obligations to ensure that competitively sensitive information received by ULA concerning one party's launches is not communicated to the other by firewall policies to be instituted in ULA. And even assuming that this firewall policy would fail, the information that Boeing hypothetically could access is not of competitive relevance. The only relevant strategic information could be indications on the cost structure of Atlas which could be relevant for pricing decisions for Sea Launch offers competing with Atlas. However, as mentioned above, it is known in the market that Atlas' cost and price is higher than that of its commercial competitors. Atlas main competitive feature is therefore its reliability, which made some customers, in a very limited number of cases, ready to accept the price premium. The cost efficiencies that, according to the parties, may result from the JV do not considerably change this situation. In addition to their uncertainty, the starting gap between Atlas and its competitors is such that it is unlikely that it could enter into fierce price competition with Sea Launch in the mid-term future. Hypothetical access to information on Atlas' cost structure would therefore be of very limited strategic value for Boeing. Other potential strategic information could be information on the fact whether Atlas would participate in a bid launched by a launch service customer. However, ULA could not make this information available to Boeing, as it is ILS that markets Atlas' commercial launches and thus decides on the participation in a bid; ULA would be involved only at the time LM would order the vehicle following award of the contract. ILS remains outside ULA.
23. With regard to the opportunities for coordination, it also has to be taken into account that the launch services of Sea Launch are not provided by Boeing alone. Sea Launch is a JV between Boeing (40%), RSC Energia (25%), Kvaerner (20%), Yuzhmash (10%) and Yuzhnoye (5%). The relevant corporate arrangements only confer joint control to Boeing<sup>9</sup>. [...] Therefore, Boeing is not able to determine a strategy for Sea Launch on its own, but would have to convince its partners to adopt such a joint strategy, which makes a straight coordination more difficult. This is further strengthened by the fact that the market in question is a bidding market, where clients put contracts for launch services to tender among launch service

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<sup>9</sup> See case no. COMP/M.1879 Boeing/Hughes, pt. 60.

providers. Coordination on bidding behaviour typically tends to need a rather high level of sophistication and interaction to be successful.

24. The JV also does not change the incentives of the parties to adopt such a joint price increase. If they would have considered such a strategy to be profitable and viable, this would have been the case already before the creation of the JV, and the JV does not add to this consideration.
25. The only difference brought about by the JV in this respect is that Boeing now could participate in profits gained from sales on the commercial market of launches on Atlas through its participation in ULA, which previously was not the case. This could hypothetically give Boeing an incentive to accept to forego sales of services on Sea Launch for the benefit of Atlas in certain bidding situations. However, as the profits from such an approach would only benefit Boeing through ULA, but not its JV partners in Sea Launch, it is doubtful these partners would accept such an approach. The JV therefore does not change in any relevant way the parties' incentives with regard to a joint price increase strategy.
26. Finally, it is very questionable whether a joint price increase by the parties would be successful, i.e. profitable and sustainable. The market for commercial launches currently is characterised by significant overcapacity. Market participants described the market in the past as highly competitive, which did not show any indications of coordinated behaviour between the suppliers. The third competitor on the market, Arianespace, is the market leader with a market share of around 40-50%. It cannot be assumed that Arianespace would simply follow the hypothetical pricing strategy adopted by the parties instead of maintaining its prices to expand its market share. The launcher industry operates with high fixed costs, which creates a strong incentive to aim at increasing the number of launches. This applies in particular to Arianespace, which due to the limited size of the governmental market in Europe, is largely dependent on a maximum of volumes sold on the commercial market to cover its fixed costs. Consequently, the parties cannot rely on Arianespace to follow their strategy. On that basis, the incentive for the parties and their JV partners to adopt such a strategy appears very limited, regardless of the creation of the JV.

## *(2) Predatory pricing strategy*

27. As regards the alternative hypothetical coordination scenario of a joint price war against Arianespace, it should be stressed at the outset that this would require sustainable concerted action as regards all products on the market beyond Ariane, i.e. Atlas, Proton and Sea Launch. Deviation by any of those offerers would undermine the strategy. With the products contributed to the JV, Atlas and Delta alone, a predation strategy against the market leader Arianespace would not be possible.
28. Again the JV does not provide any more possibilities or opportunities for such a strategy. As mentioned above, the JV does not foster access to strategic information between the parties on their activities in Sea Launch and Proton. As far as financial support from the US government for the development and production of Atlas and Delta launchers in the framework of their governmental missions is concerned, the



parties had received such support already in the past, and any potential future changes are unlikely to result directly from the creation of ULA<sup>10</sup>. There are at present no indications that the JV will result in more financial means that would be available to the parties to support aggressive pricing on the commercial market compared to the situation pre-merger.

29. The JV also does not change the incentives of the parties to adopt such a hypothetical strategy. If they would have considered such a strategy to be profitable and viable, this would have been the case already before the creation of the JV, and the JV does not add to this consideration.
30. It is very questionable whether a price attack strategy would be successful, i.e. profitable and sustainable. The parties would have to eliminate or marginalise Arianespace in a foreseeable period of time in order to be able to recuperate the losses from their below cost pricing via a subsequent significant price increase. In addition, marginalisation of Arianespace alone would probably not be enough in the present case, as in case of a continued (marginal) market presence, given Arianespace's continued presence on the governmental market, it may be able to keep the necessary capabilities which would mean that it could re-gain market share as soon as the parties would start to raise prices.
31. However, first, the launcher industry is a very capital intense business. The parties would have to use significant amounts of finance to run a below cost strategy for their launchers for a sufficiently long time.
32. Second, the frequency of launches on the commercial market is rather limited (around 16-20 launches per year) and launch service providers work with an order book containing launches scheduled for several years in the future. In addition, Arianespace currently has a strong market position with a market share of around 40-50% in the commercial market. Consequently, it would take considerable time to eliminate Arianespace from the market and before recuperation through price increases could start.
33. Third, it could be observed that some customers in the past followed a multi-sourcing strategy including Arianespace in order to minimise the risk of their satellites not being placed in orbit in due time. It can be expected that customers will have an incentive to support Arianespace in order to avoid the disappearance of a reliable alternative. Furthermore, it has to be considered that Arianespace is a project established at the initiative and with the support of EU Member States with a strong position in the European governmental market. Its sustainability on the market can therefore not be compared with an ordinary commercial supplier.
34. Finally, it has to be taken into account that Boeing participates in Sea Launch's profits only proportionally [...]. Any financial support provided by Boeing to Sea Launch for a below cost strategy could therefore only be recuperated proportionally in case of increased prices and with significant delay, with a detrimental effect on the overall profitability of this strategy.

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<sup>10</sup> According to its public communications, through the JV the government expects to be able to cut the cost for these missions and thus in fact to reduce the amount of financial support required.

35. In this context, it has to be considered again that Boeing would have to find the agreement of its JV partners in Sea Launch for such an elimination strategy. The high financial investment required for this strategy and the uncertainty that it could be successfully recuperated in a reasonable timeframe in the circumstances of this case reduces the likelihood that Boeing will be able to align its partners to a joint strategy of this kind.
36. On that basis, the incentive for the parties to adopt such a strategy appears very limited, regardless of the creation of the JV.

**c) Conclusion on coordination effects**

37. In the light of these considerations, it is concluded that the creation of the JV does not have the object or effect of coordination of the competitive behaviour between LM/ILS and Boeing/BLS as regards their launch service activities on the commercial market.
38. The Commission will continue to monitor future market developments and any further consolidation of the parties' activities in the industry concerned by this concentration and will assess them in the light of the applicable provisions of EC competition law.

**V. CONCLUSION**

39. It can therefore be concluded that the concentration will not significantly impede effective competition in the common market or in a significant part of it, in particular as a result of the creation or strengthening of a dominant position.
40. For the above reasons, the Commission has decided not to oppose the notified operation and to declare it compatible with the common market and the EEA Agreement. This decision is adopted in application of Article 6(1)(b) of Council Regulation (EC) No 139/2004.

For the Commission  
*[signed]*  
Joaquin ALMUNIA  
Member of the Commission