

Embargoed until 10am March 5

**Testimony of
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**Subcommittee on Defense
Committee on Appropriations
United States Senate**

Chairman Durbin, Ranking Member Cochran and Members of the Subcommittee, thank you for the opportunity to appear today to discuss the Evolved Expendable Launch Vehicle (EELV) program and the future of space launch.

On behalf of the men and women of United Launch Alliance and the entire EELV supplier team, we are honored to be entrusted with the responsibility of safely delivering critical national security satellites to orbit. These satellites provide capabilities vital to nearly every aspect of U.S. national security. ULA also supports customers outside of national security. For NASA, we have launched science missions to the Moon, Mercury, Jupiter, and Pluto, and even sent the rovers on their way to Mars. Our customers extend beyond government to the commercial sector with nine commercial missions to date and several more on the manifest.

I am pleased to report that ULA and the government team have consistently delivered 100 percent mission success over 68 launches since the inception of the program. We are currently at a tempo of about one launch every month. ULA's Atlas V and Delta IV rockets are the most powerful and most reliable in the world. They are the only rockets that fully meet the unique and specialized needs of the national security community.

The Air Force EELV program was competed in the late 1990's with a unique acquisition strategy that required significant upfront investment by industry. Lockheed Martin's Atlas and Boeing Company's Delta products were the winners. Over the past 17 years the program has continued to deliver. Meeting the needs of our nation effectively and efficiently – delivering capabilities on time, on budget and while delivering on all of the programs original requirements.

Looking forward, the EELV program is entering a new era. The Air Force's new acquisition strategy aims to maintain reliability and stabilize the industrial base, while reducing costs and introducing competition. We welcome the new strategy, as the previous approach of buying rockets one-at-a-time was highly inefficient and costly.

The Air Force implemented the first phase of the new strategy with a block-buy commitment which will save several billions of dollars over the next five years. The

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block-buy created efficiency through economies of scale, eliminated repetitive administrative contracting actions, and provided stability and predictability that enabled informed investment decisions on product and process improvements that were incorporated into our pricing.

The next phase of the Air Force strategy is to introduce competition. I believe there are substantive questions about how EELV competitions will be structured to ensure the competition is fair and open and whether it will actually deliver savings to our nation. Ultimately, the central question is whether savings from competition will be sufficient to offset the cost of duplicating existing capabilities. ULA was formed to enable assured access to space with two separate launch systems, with recognition that the market demand was insufficient to sustain two competitors. We went from two competing teams with redundant and underutilized infrastructure to one team that has delivered the expected savings of this consolidation.

Looking to the future, we are investing in new technology and concepts to make our products better and more affordable. We are investing internal funds to develop a capability to launch two GPS satellites at a time which will cut launch costs almost in half. ULA, along with our government customers, is reviewing every requirement and every process to eliminate any unnecessary or inefficient elements.

ULA is also aggressively expanding its customer base, both at NASA and in the commercial sector with additional launches because improved utilization of the fixed infrastructure improves the cost for all customers. ULA and our industry partners are going to work closely with NASA's SLS, and other DoD programs to find opportunities to improve product designs and utilize industrial base infrastructure more efficiently to lower the cost for all programs.

On a more personal note, I have been in this business for 35 years. I have worked with the government in every imaginable approach to buying launch services, from traditional DoD contracting approaches to commercial approaches; from buying rockets in blocks to buying them individually. I've also worked extensively in the international and commercial sectors. I was there in the 1990s when the commercial demand for launch was projected to be dozens of launches per year, only to have the projected commercial demand evaporate overnight. I believe leveraging the demand from the commercial sector is smart, but relying on commercial demand to enable national security carries huge risks, both to the rocket supplier and to its government customers.

I've also experienced some of the launch industry's darkest days, such as in the late 1990s when the U.S. suffered a series of six major launch failures over a 10-month period. These included three consecutive Titan IV failures and the loss of some of the

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nation's most critical systems. Those losses totaled many billions of dollars and were a harsh reminder that launch is risky and extremely unforgiving. It's difficult to overemphasize the depth of the loss to national security those failures caused.

I believe the impressive successes we've achieved on EELV stem from the difficult lessons-learned from the 1990s. These lessons include sustaining a laser focus on technical rigor, the importance of an open and transparent relationship with our government customers, and acquisition strategies that align with our customers' priorities.

In summary, I believe the EELV program has been a major success for the nation. We will continue to provide the assured access the nation needs to deliver critical capabilities to orbit reliably and on-schedule. We look forward to working with our government customers and stakeholders to significantly drive down cost further while maintaining reliability and readiness.

Thank you for the opportunity to appear before you today. I will be honored to answer your questions.

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EELV Flight History						Updated: 2/21/13
EELV	Launch Date	Vehicle	Customer	Mission	Outcome	
1	08/21/02	Atlas V	Commercial	Hot Bird 6 – Commercial Comm	Mission Success	
2	11/20/02	Delta IV	Commercial	Eutelsat W5 – Commercial Comm	Mission Success	
3	03/11/03	Delta IV	Air Force	DSCS-3 A3 – Military Communications	Mission Success	
4	05/13/03	Atlas V	Commercial	Hellas Sat – Commercial Comm	Mission Success	
5	07/17/03	Atlas V	Commercial	Rainbow 1 – Commercial Comm	Mission Success	
6	08/29/03	Delta IV	Air Force	DSCS-3 B6 – Military Communications	Mission Success	
7	12/17/04	Atlas V	Commercial	AMC 16 – Commercial Comm	Mission Success	
8	12/21/04	Delta IV-Heavy	Air Force	DemoSat – 1st flight of Delta IV-Heavy	Mission Success	
9	03/11/05	Atlas V	Commercial	Immarsat 4-F1	Mission Success	
10	08/12/05	Atlas V	NASA	Mars Reconnaissance Orbiter	Mission Success	
11	01/19/06	Atlas V	NASA	New Horizons - Pluto	Mission Success	
12	04/20/06	Atlas V	Commercial	Astra 1KR	Mission Success	
13	05/24/06	Delta IV	NASA/NOAA	GOES-N - Weather Satellite	Mission Success	
14	06/28/06	Delta IV	NRO	NROL-22 (Classified)	Mission Success	
15	11/04/06	Delta IV	Air Force	DMSP-17 - Weather Satellite	Mission Success	
16	03/08/07	Atlas V	Air Force	STP-1 - Technology Satellite	Mission Success	
17	06/15/07	Atlas V	NRO	NROL-30 (Classified)	Mission Success	
18	10/11/07	Atlas V	Air Force	WGS-1 - Military Communications	Mission Success	
19	11/11/07	Delta IV-Heavy	Air Force	DSP-23 - Missile Warning	Mission Success	
20	12/10/07	Atlas V	NRO	NROL-24 (Classified)	Mission Success	
21	03/13/08	Atlas V	NRO	NROL-28 (Classified)	Mission Success	
22	04/14/08	Atlas V	Commercial	ICO G1 - Commercial Communications	Mission Success	
23	01/18/09	Delta IV-Heavy	NRO	NROL-26 (Classified)	Mission Success	
24	04/04/09	Atlas V	Air Force	WGS-2 - Military Communications	Mission Success	
25	06/18/09	Atlas V	NASA	LRO - Moon Mission	Mission Success	
26	06/27/09	Delta IV	NASA/NOAA	GOES-O - Weather Satellite	Mission Success	
27	09/08/09	Atlas V	DoD	PAN - Communications	Mission Success	
28	10/18/09	Atlas V	Air Force	DMSP-18 - Weather Satelltie	Mission Success	
29	11/23/09	Atlas V	Commercial	Intelsat 14 - Commercial Comm	Mission Success	
30	12/06/09	Delta IV	Air Force	WGS-3 - Military Communications	Mission Success	
31	02/11/10	Atlas V	NASA	Solar Obervatory - Science	Mission Success	
32	03/04/10	Delta IV	NASA/NOAA	GOES-P - Weather Satelltie	Mission Success	
33	04/22/10	Atlas V	Air Force	X-37B Orbital Test Vehicle-1	Mission Success	
34	05/28/10	Delta IV	Air Force	GPS-IIF-1 Navigation Satellite	Mission Success	
35	08/24/10	Atlas V	Air Force	AEHF-1 Military Communications	Mission Success	
36	09/21/10	Atlas V	NRO	NROL-41 (Classified)	Mission Success	
37	11/21/10	Delta IV-Heavy	NRO	NROL-32 (Classified)	Mission Success	
38	01/20/11	Delta IV-Heavy	NRO	NROL-49 (Classified)	Mission Success	
39	03/05/11	Atlas-V	Air Force	X-37B Orbital Test Vehicle-2	Mission Success	
40	03/11/11	Delta IV	NRO	NROL-27 (Classified)	Mission Success	
41	04/14/11	Atlas V	NRO	NROL-34 (Classified)	Mission Success	
42	05/07/11	Atlas V	Air Force	SBIRS-GEO-1 Missile Warning System	Mission Success	
43	07/16/11	Delta IV	Air Force	GPS IIF-2 - Navigation Satellite	Mission Success	
44	08/05/11	Atlas V	NASA	Juno - Mission to Jupiter	Mission Success	
45	11/26/11	Atlas V	NASA	Mars Science Lab/Curiosity Rover	Mission Success	
46	01/20/12	Delta IV	Air Force	WGS-4 - Military Communications	Mission Success	
47	02/24/12	Atlas V	Navy	MUOS 1 - Military Communications	Mission Success	
48	04/03/12	Delta IV	NRO	NROL-25 - (Classified)	Mission Success	
49	05/04/12	Altas V	Air Force	AEHF-2 Military Communications	Mission Success	
50	06/20/12	Atlas V	NRO	NROL-38 - (Classified)	Mission Success	
51	06/29/12	Delta IV-Heavy	NRO	NROL-15 (Classified)	Mission Success	
52	08/30/12	Atlas V	NASA	RBSP - Heliophysics	Mission Success	
53	09/13/12	Atlas V	NRO	NROL-36 (Classified)	Mission Success	
54	10/04/12	Delta IV	Air Force	GPS IIF-3 - Navigation Satellite	Mission Success	
55	12/11/12	Atlas V	Air Force	X-37B Orbital Test Vehicle-3	Mission Success	
56	01/31/13	Atlas V	NASA	TDRS-K - Communications	Mission Success	
57	02/11/13	Atlas V	NASA	LDCM - Landsat	Mission Success	
58	03/19/13	Atlas V	Air Force	SBIRS-GEO-2 Missile Warning System	Mission Success	
59	05/15/13	Atlas V	Air Force	GPS IIF-4 - Navigation Satellilite	Mission Success	
60	05/24/13	Delta IV	Air Force	WGS-5 - Military Communications	Mission Success	
61	07/19/13	Atlas V	Navy	MUOS 2 - Military Communications	Mission Success	
62	08/08/13	Delta IV	Air Force	WGS-6 - Military Communications	Mission Success	
63	08/28/13	Delta IV-Heavy	NRO	NROL-65 (Classified)	Mission Success	
64	09/18/13	Atlas V	Air Force	AEHF-3 Military Communications	Mission Success	
65	11/18/13	Atlas V	NASA	MAVEN - Mission to Mars	Mission Success	
66	12/05/13	Atlas V	NRO	NROL-39 - (Classified)	Mission Success	
67	01/23/14	Atlas V	NASA	TDRS-L - Communications	Mission Success	
68	02/20/14	Delta IV	Air Force	GPS IIF-5 - Navigation Satellite	Mission Success	