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Joint Light Tactical Vehicle (JLTV): Background and Issues for Congress

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SUMMARY

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Joint Light Tactical Vehicle (JLTV): Background and Issues for Congress

The Joint Light Tactical Vehicle (JLTV) is being developed by the Army and the Marine Corps as a successor to the High Mobility, Multi-Wheeled Vehicle (HMMWV), which has been in service since 1985. On October 28, 2008, awards were made for the JLTV Technology Development (TD) Phase to three industry teams: (1) BAE Systems, (2) the team of Lockheed Martin and General Tactical Vehicle, and (3) AM General and General Dynamics Land Systems.

On January 26, 2012, the Army issued a Request for Proposal (RFP) for the JLTV's Engineering Manufacturing Development (EMD) phase. The period of performance for EMD contracts was 27 months, and the overall EMD phase was scheduled to last 33 months. Vendors were required to provide 22 JLTV prototypes for testing 12 months after contract award. The target cost for the base vehicle was $250,000, excluding add-on armor and other kits.

On August 22, 2012, the Army announced the award of three firm-fixed price JLTV EMD contracts totaling approximately $185 million. The three companies awarded the EMD contracts were AM General, LLC (South Bend, IN); Lockheed Martin Corporation (Grand Prairie, TX); and Oshkosh Corporation (Oshkosh, WI).

On September 3, 2013, the Army began JLTV testing at Aberdeen Proving Ground, MD; Yuma, AZ; and Redstone Arsenal, AL. The Army planned to select a single vendor by 2015, with the first Army brigade being equipped with JLTVs by 2018.

On August 25, 2015, it was announced the Army had awarded Oshkosh a $6.7 billion low rate initial production (LRIP) contract with eight options to procure the initial 16,901 vehicles for the Army and Marines. The JLTV is being produced in Oshkosh, WI.

The British Army is reportedly trying to acquire 2,747 JLTVs through Foreign Military Sales (FMS). The Marines have also reportedly increased their JLTV requirement for a total of 9,091 JLTVs. The Air Force and Navy are also procuring a limited number of JLTVs for use.

A redacted May 2, 2018, DOD Inspector General (IG) report noted the services had not demonstrated effective test results to prepare the JLTV program for full rate production, but the JLTV Program Office planned to address this concern. The Director, Operational Test and Evaluation (DOT&E) FY2018 Annual Report noted among other findings that JLTVs were not operationally suitable because of deficiencies in reliability, maintainability, training, manuals, crew situational awareness, and safety. On June 20, 2019, the Army authorized JLTV full-rate production.

In order to free up funds for other Army modernization priorities, the Army plans a program reduction in FY2021 of $201.6 million and will also extend the JLTV procurement by three years until 2042. The Army also has indicated it plans compete a follow-on contract to be awarded in FY2022 intended to split the procurement between Oshkosh and a new competitor in order to drive down costs.

Potential questions for Congress include

1. Will the JLTV become the major bill payer for Army modernization? and
2. What is the future of JLTV procurement?

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Background[1]

The JLTV is an Army-led, multiservice initiative to develop a family of future light tactical vehicles to replace many of the High Mobility, Multi-Wheeled Vehicles (HMMWVs) used by the armed services today. HMMWVs, which first entered service in 1985, were developed during the Cold War when improvised explosive devices (IEDs) and other antivehicle explosive devices were not a major factor in military planning. The HMMWVs' demonstrated vulnerability to IEDs and the difficulties and costs experienced in "up-armoring" HMMWVs already in the inventory led to renewed emphasis on vehicle survivability. DOD officials have emphasized that JLTVs are not intended to replace HMMWVs "one for one."[2]

The JLTV Program

What Is the JLTV?[3]

The JLTV program is a joint Army/Marine Corps effort to develop and produce both vehicles and associated trailers. The JLTV family of vehicles consists of two variants: the two seat Utility variant and a four seat variant with three models:

- General Purpose (GP) variant;
- Heavy Guns Carrier (HGC) variant; and
- Close Combat Weapon carrier (CCWC) variant.[4]

Program Structure

The JLTV is an Acquisition Category (ACAT) 1D program.[5] The Army bears the overall responsibility for developing the JLTV through its Joint Program Office, which reports to the Program Executive Office (PEO) for Combat Support & Combat Service Support (PEO CS&CSS) in Warren, MI, which reports to the Assistant Secretary of the Army for Acquisition, Logistics, and Technology (ASA [AL&T]). Marine participation is centered on a program office under the supervision of the Program Executive Officer Land Systems (PEO LS) Marine Corps at Quantico, VA.

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[1] Alan L. Gropman, "Combat Vehicle Sector Could be Headed for Turbulent Times," *National Defense*, April 25, 2008, and James P. Miller, "Race is On to Replace Humvee," *Chicago Tribune*, June 21, 2008.

[2] Kris Osborn, "DOD's JLTV Becoming an International Effort," *Defense News*, August 4, 2008. Headquarters, Department of the Army, "Army Truck Program (Tactical Wheeled Vehicle Acquisition Strategy) Report to the Congress," June 2010, p. 5.

[3] Information in this section is taken from the Army Product Manager, Joint Light Tactical Vehicle website, https://www.peocscss.army.mil/pmjltv.html, visited February 18, 2020, and Tony Bertuca, "PMs: JLTV Still Too Heavy, Changing Schedule and Losing Six-Man Variant," *InsideDefense.com*, February 11, 2011.

[4] Ibid.

[5] The 12th Edition of the *Defense Acquisition University Glossary*, July 2005, defines an ACAT 1D program as "a Major Defense Acquisition Program (MDAP) which is estimated by the Under Secretary of Defense (Acquisition, Technology, and Logistics) (USD (AT&L)) to require the eventual expenditure for Research, Development, Test, and Evaluation (RDT&E) of more than $365 million (FY2000 constant dollars) or the procurement of more than $2.19 billion (FY2000 constant dollars)."

Past Program History

In November 2006 the Joint Chiefs of Staff's Joint Requirement Oversight Council (JROC) approved the JLTV program. On December 22, 2007, the Under Secretary of Defense for Acquisition, Technology, and Logistics USD (AT&L) signed an Acquisition Decision Memorandum (ADM) directing the JLTV Program to move from the Concept Refinement Phase into the Technology Development (TD) Phase of the DOD System Acquisition Process. The Army and Marines had intended to issue a Request for Proposal (RFP) for Technology Development Phase as early as October 2007. Concerned with funding adequacy, technical maturity, and shifting requirements, the Pentagon's acquisition executive disapproved the issuance of the RFP and directed the Army and Marines to "go back to the drawing board and develop a robust technology development phase."[6] On February 5, 2008, an RFP for Technology Development Phase was issued to industry.[7] The RFP stated the government desired to award three contracts for the JLTV Technology Development Phase. The RFP stipulated that proposals would be due April 7, 2008, and the TD Phase would last 27 months. Contractors would build four test subconfigurations during the first 15 months, followed by 12 months of testing.

Technology Development Contracts Awarded[8]

On October 28, 2008, three awards were made for the JLTV TD Phase for a total of $166 million. The three industry teams were (1) BAE Systems Land and Armaments, Ground Systems Division, Santa Clara, CA, and NAVISTAR Defense, Warrenville, IL; (2) General Tactical Vehicles, Sterling Heights, MI—a joint venture between General Dynamics Land Systems and AM General; and (3) Lockheed Martin Systems Integration, Oswego, NY, BAE Systems, Alcoa Defense, Pittsburgh, PA, and JWF Defense Systems, Johnstown, PA.

JLTV Contracts Protested

On November 7 and November 12, 2008, protests were filed with the Government Accountability Office (GAO) against the TD contract awards by the Northrop Grumman-Oshkosh team and the Textron-Boeing-SAIC team alleging there were "unintended discrepancies" in how the government rated bids in terms of the criteria of systems maturity, logistics, and costs.[9] As a result of that protest, work on the JLTV program by the three winning teams was suspended. On February 17, 2009, GAO rejected the JLTV protests and the stop-work orders were lifted.

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[6] Jason Sherman, "Pentagon Halts JLTV Competition, Directs Revised Strategy," *InsideDefense.com*, September 24, 2007.

[7] JLTV Request for Proposal, W56HZV-08-R-0210, February 5, 2008, and Marjorie Censer, "JLTV Solicitation Calls for Three Contractors: Officials Say More are Possible," *InsideDefense.com*, February 5, 2008.

[8] Unless otherwise noted, information in this section is taken from TACOM's JLTV Program website, http://contracting.tacom.army.mil/MAJORSYS/JLTV/jltv.htm, accessed March 2, 2011, and the Marine Corps PEO Land Systems JLTV website, https://www.marcorsyscom.usmc.mil/peolandsystems/jltv.aspx, accessed March 2, 2011.

[9] Marjorie Censer, "Following Northrop's Lead, Boeing-Textron Team Files JLTV Protest," *InsideDefense.com*, November 12, 2008, and Ann Roosevelt, "Textron-Team Protests Army JLTV Awards," *Defense Daily*, November 13, 2008; and Daniel Wasserbly, "U.S. GAO Rejects JLTV Protests," Jane's Defence Weekly, February 25, 2009, p. 12.

Change in Requirements, Program Schedule, and Variants[10]

In February 2011 the JLTV Program Office announced the award of the EMD contract would be delayed until January or February 2012 because the Army changed requirements for the JLTV to have the same level of under-body protection as the Mine-Resistant, Ambush-Protected All-Terrain Vehicle (M-ATV). DOD had planned to award two contracts for the EMD phase, which was scheduled to last 24 months,[11] but instead opted for a 48-month-long EMD phase before awarding Production and Deployment contracts in the second quarter of FY2016. It was decided that there would be two variants—a Combat Tactical Vehicle (CTV), which can transport four passengers and carry 3,500 pounds, and a Combat Support Vehicle (CSV), which can transport two passengers and carry 5,100 pounds.

Army Issues RFP for EMD Phase[12]

On January 26, 2012, the Army issued the RFP for the JLTV's EMD Phase. Industry proposals for the EMD contract were to have been filed with the Army by March 13, 2012. The RFP stipulated that up to three EMD contracts could be awarded, and contract award occurred in June 2012. These contracts would be capped at $65 million per contract. The duration of the EMD performance period would be 27 months starting with contract award. Vendors would be required to provide 22 prototypes for testing 12 months after contract award, and the target cost for the base vehicle configuration was $250,000 (FY2011 constant dollars), excluding add-on armor kits and other kits identified in the RFP.

JLTV EMD Contracts Awarded

On August 22, 2012, the Army announced the award of three firm-fixed price JLTV EMD contracts totaling approximately $185 million.[13] The three companies awarded the EMD contracts were AM General, LLC (South Bend, IN); Lockheed Martin Corporation (Grand Prairie, TX); and Oshkosh Corporation (Oshkosh, WI). The period of performance was for 27 months, with each contractor receiving initial funding between $28 million and $36 million per contractor, with the balance of funding up to the full contract amount being provided in FY2013 and FY2014. In 12 months, each team was required to deliver 22 prototypes and contractor support for a 14-month comprehensive government testing program, which included blast, automotive, and user evaluation testing. The overall EMD Phase was scheduled to last 33 months. According to the Army, "the EMD Phase is designed to test and prepare the next-generation vehicles for a Limited User Test, Capabilities Production Document and Milestone C procurement decision in FY 2015."[14]

Unsuccessful bidders Navistar Defense, BAE Systems, and General Tactical Vehicles (a team of General Dynamics and AM General) were permitted to continue developing JLTV candidate

[10] Information in this section, unless otherwise noted is taken from a briefing from the Project Manager Joint Combat Support Systems on the Joint Light Tactical Vehicle given on February 7 and 8, 2011, and Tony Bertuca, "PMs: JLTV Still Too Heavy, Changing Schedule and Losing Six-Man Variant," *InsideDefense.com,* February 11, 2011.

[11] DOD Briefing: "JLTV EMD Industry Day," April 26, 2010.

[12] Solicitation, Offer, and Award, Number W56HZV-11-R-0329, U.S. Army Contracting Command, January 26, 2012.

[13] Information in this section is from U.S. Army Message, "Army Awards Three Joint Light Tactical Vehicle Engineering & Manufacturing Development Phase Contracts," Warren, Michigan, August 22, 2012.

[14] Kris Osborn, Office of the Secretary of the Army for Acquisition, Logistics, and Technology, "JLTV Program Moves into EMD Phase," *Army News Service,* October 18, 2012.

vehicles at their own risk and expense, if they notified the government within 30 days of the EMD contract award.[15] Reports suggested some bidders considered continuing development of JLTV candidates for submission for production source selection.[16]

Army Releases Final RFP for JLTV Full-Rate Production[17]

On December 12, 2014, the Army reportedly released the final RFP for JLTV low-rate initial production and full-rate production and gave competitors until February 10, 2016, to refine and submit their bids. The Army—on behalf of itself and the Marines—planned to select a winner and issue a single contract award in late summer 2016.

The winning contractor would build approximately 17,000 JLTVs for the Army and Marines during three years of low-rate initial production, followed by five years of full-rate production. The first Army unit would be equipped with JLTVs in FY2018, and the Army's complete acquisition of JLTVs would be completed in 2040. The Marines would begin acquiring their 5,500 JLTVs at the beginning of production and would be completed by FY2022.

Bids Submitted for JLTV Low-Rate Initial Production (LRIP)[18]

It was reported that the three companies who were picked in 2012 to build prototypes—Oshkosh, Lockheed Martin, and AM General—submitted their bids for the LRIP contract by the February 10, 2015, deadline. It was also reported that none of the three competitors had said publicly if they included in their proposals an option for the Army to purchase a technical data package for their vehicles. If the Army acquired the technical data package, theoretically the Army could use that data for future production runs, which could enhance competition and possibly result in better prices for the government.

Army Awards JLTV Contract[19]

On August 25, 2015, the Army awarded Oshkosh a $6.7 billion low rate initial production (LRIP) contract with eight options to procure the initial 16,901 vehicles for the Army and Marines. The JLTV is to be produced in Oshkosh, WI.[20] A full rate production decision was planned for FY2018 and called for the production of 49,100 JLTVs for the Army and 5,500 for the Marine Corps.

[15] Tony Bertuca, "Three JLTV Winners Announced; Losing Companies Still May Have a Shot," *InsideDefense.com,* August 23, 2012.

[16] Ibid.

[17] Information in this section is taken from Megan Eckstein, "Army Releases Final RFP for JLTV; Bids Due Feb. 10," *Defense Daily,* December 15, 2014.

[18] Information in this section is taken from Sebastian Sprenger, "Companies Submit Bids for Joint Light Tactical Vehicle," *InsideDefense.com,* February 10, 2015.

[19] Joe Gould, "Oshkosh Wins JLTV Award," *Defense News,* August 25, 2015.

[20] Courtney McBride, "Oshkosh Receives JLTV Order," *InsideDefense.com,* March 23, 2016.

Lockheed Martin's JLTV Protest

Lockheed Martin Files Protest with the Government Accountability Office (GAO)[21]

On September 8, 2015, Lockheed Martin reportedly planned a protest with GAO, with a program spokesman stating the following:

> After evaluating the data provided at our debrief, Lockheed Martin has filed a protest of the award decision on the JLTV program. We firmly believe we offered the most capable and affordable solution for the program. Lockheed Martin does not take protests lightly, but we are protesting to address our concerns regarding the evaluation of Lockheed Martin's offer.[22]

Army Stops Work on the JLTV Contract[23]

On September 10, 2015, the Army reportedly issued a stop-work order to Oshkosh, with a GAO spokesman noting, "The Federal Acquisition Regulation requires contracting officers to automatically suspend performance on an awarded contract, following appropriate notification of a protest from GAO."[24] On December 11, 2015, Lockheed Martin informed GAO that it would file its JLTV protest instead with the U.S. Court of Federal Claims. On December 15, 2015, GAO closed Lockheed Martin's protest "without further action." With the GAO protest dismissed, the Army lifted its stop-work order to Oshkosh on December 15, 2015.[25] The U.S. Court of Federal Claims denied Lockheed Martin's stop-work request on February 11, 2016, meaning Oshkosh could continue work associated with the JLTV contract until the court resolved the contract award dispute.[26]

Lockheed Martin Withdraws JLTV Protest from United States Court of Federal Claims[27]

On February 17, 2016, Lockheed Martin reportedly withdrew its JLTV protest in the U.S. Court of Federal Claims.

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[21] Lee Hudson and Justin Doubleday, "Lockheed To File GAO Bid Protest After Losing JLTV Contract," *InsideDefense.com,* September 9, 2015.

[22] Ibid.

[23] Sebastian Sprenger, "Newly Awarded JLTV Work Comes To A Halt Amid Auditors' Review," *InsideDefense.com,* September 10, 2015.

[24] Ibid.

[25] Sebastian Sprenger, "New Lockheed Suit Means JLTV Protest remains Undecided for Now," *InsideDefense.com,* December 16, 2015, and United States Government Accountability Office (GAO) Decision on the Matter of Lockheed Martin Corporation, December 15, 2015.

[26] Sebastian Sprenger, "Lockheed Martin Loses JLTV Stop-Work Request," *InsideDefense.com,* February 12, 2016.

[27] Jen Judson, "Lockheed Withdraws JLTV Complaint with U.S. Federal Court," *Defense News,* February 17, 2016.

JLTV LRIP Production Begins[28]

On March 22, 2016, the Army reportedly placed a $243 million order with Oshkosh Defense to build 657 JLTVs, as well as 2,977 installation kits and related vehicle support LRIP items. The first JLTVs were delivered in September 2016.[29]

Delay in JLTV Initial Operating Capability (IOC)[30]

Primarily due to program disruption resulting from the Lockheed Martin protest, the JLTV will not reach IOC in mid-2019 as originally planned. Instead, the Army anticipates a six-month delay in IOC until the end of 2019, and the Marine Corps IOC, originally expected for the fourth quarter of FY2018, will now be a year later in the first quarter of FY2020. Although these delays are significantly longer than the protest period, officials from both services noted their respective IOCs were adjusted to reflect delays in scheduled testing.

Army Places $100 Million Order for JLTVs[31]

The Army reportedly ordered 258 JLTVs and 1,727 associated components in December 2017 for a total of $100.1 million, with the estimated contract completion date May 31, 2019. According to Oshkosh Defense, it had delivered more than 1,000 vehicles since October 2016, and soldiers and Marines were expected to start receiving JLTVs for operational use in FY2019. Also in FY2019, a full-rate production decision is expected, with an Army and Marine Initial Operating Capability (IOC) expected in early FY2020.

Other JLTV Program-Related Developments

Air Force JLTV Acquisition[32]

In the near term, the Air Force plans to replace HMMWVs with JLTVs in its security forces, explosive ordnance disposal, pararescue, tactical air control, and special tactics units. Reportedly, the Air Force eventually would like to replace its entire 3,270 HMMWV fleet with JLTVs, but Air Force budget documents detail JLTV procurement only from FY2019 through FY2022.

Marines Increase JLTV Requirement to 9,091 Vehicles[33]

The Marines reportedly plan to increase their JLTV requirement from 5,500 vehicles to 9,091 vehicles—about a 65% increase over the Marines' original approved acquisition objective.

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[28] Information in this section is taken from Dan Parsons, "Army Cuts Oshkosh $243 Million Check for First JLTV Production Lot," *Defense Daily,* March 24, 2016, and Courtney McBride, "Oshkosh Receives JLTV Order," *InsideDefense.com,* March 23, 2016.

[29] Connie Lee, "Oshkosh Receives JLTV Order; Schedules First Delivery," *InsideDefense.com,* September 27, 2016.

[30] Information in this section is from Jen Judson, "Humvee Replacement Delayed for Army and Marine Corps," *Defense News,* April 13, 2016.

[31] Ashley Tressel, "Army Places $100 Million Order for JLTVs," *InsideDefense.com,* December 21, 2017.

[32] Rachael Karas, "Air Force to Begin JLTV Buy in FY-17 to Replace HMMWVs," *InsideDefense.com,* June 22, 2017, and Valerie Insinna, "Air Force's Surprise JLTV Buy in FY 18 Could be Start of Larger Procurement Effort," *DefenseNews.com,* August 4, 2017.

[33] Lee Hudson, "Marine Corps Official Says Commandant Seeks More Than 9,000 JLTVs," *InsideDefense.com,* May

Marine leadership reportedly wanted to acquire these additional vehicles as quickly as possible, budget permitting. In June 2017 Marine Corps officials reportedly noted it would take "a couple of years" to formally adjust their approved acquisition objective (AAO), meaning that eventually, JLTVs would account for approximately half of the Marines' light tactical vehicle fleet.

British Foreign Military Sales (FMS) Purchase of JLTV[34]

The British Army will reportedly acquire 2,747 JLTVs, valued at more than $1 billion, through the Foreign Military Sales (FMS) process.[35] The sale also includes an armor kit, spare tires, and fording gear, as well as training for vehicle operators and maintainers.

JLTV Procurement Extended One Year and Increased Total Program Cost[36]

DOD reports both the Army and Marines have extended their procurement profiles due to program strategy changes, primarily due to updating the mix of vehicle variants and kits. The Army now plans to conclude its procurement in FY2036 and the Marines in FY2023. Total program costs have also increased to $28.03 billion (a 10.9% increase), primarily due to the increase in procurement profiles, increase in Marine Corps quantities to 9,091 vehicles, updates in vehicle configuration and kit mix for the Army, updates in vehicles and kits based on the vehicle configuration mix for the Marines, and an increase in other support and initial spares for the Army and Marines.

DOD Inspector General (IG) Report and JLTV Production[37]

A redacted May 2, 2018, DOD IG report notes that, while the Army and Marine Corps developed adequate test plans, the services had not demonstrated effective test results to prepare the JLTV program for full rate production. The IG's review of test results in August and September of 2017 determined the JLTV failed to meet all maintenance-related performance requirements. The IG suggested certain capabilities be developed to address the shortfall, but specifics were redacted in the public version of the report. The JLTV Program Executive Office (PEO) noted in response that the program would equip all JLTVs with the unspecified capability cited in the IG's report.

First Units Receive JLTV[38]

On January 28, 2019, the first JLTVs were delivered to the 1st Armored Brigade Combat Team (ABCT), 3rd Infantry Division at Ft. Stewart, GA. Plans call for the 1st ABCT to be equipped with

17, 2017, and "Marines Will Adjust JLTV Quantity Requirement in a Couple of Years," *InsideDefense.com,* June 19, 2017.

[34] Matthew Cox, "UK Plans to Buy $1 Billion Worth of JLTVs," *Military.com,* July 10, 2017.

[35] For additional information on FMS, see CRS In Focus IF10392, *Foreign Military Sales Congressional Review Process,* by Paul K. Kerr.

[36] Department of Defense Comprehensive Selected Acquisition Reports (SARs) for the December 31, 2017, Reporting Requirement as Updated by the President's FY2019 Budget, p. 4 and Ashley Tressel, "JLTV Procurement Stretched by One Year," *InsideDefense.com,* April 5, 2018.

[37] Department of Defense Inspector General, Army and Marine Corps Joint Light Tactical Vehicle, May 2, 2018, and Ashley Tressel, "DOD IG Concerned with JLTV Preparedness," *InsideDefense.com,* May 8, 2018.

[38] Information in this section is taken from "Army's Newest Vehicle Delivered to Soldiers at Ft. Stewart," Army News Service, January 28, 2019, "Marine Corps is Rolling Forward with Fielding New JLTV," Marine Corps Systems

about 500 JLTVs by the end of March 2019. It is not known if the 500 JLTVs have been fielded as of the date of this report. The Marines started fielding JLTVs at Camp Pendleton, CA, in February 2019, with initial operational capability planned for late summer 2019.

Director, Operational Test and Evaluation (DOT&E)[39] FY2018 Annual Report

Among other things, DOT&E's FY2018 Annual Report contended the following:

- The JLTV General Purpose (GP), Heavy Guns Carrier (HGC), and Utility (UTL) variants are operationally effective for employment in combat and tactical missions.
- The JLTV Close Combat Weapons Carrier (CCWC) is not operationally effective for use in combat and tactical missions. The CCWC provides less capability to engage threats with the Tube-launched, Optically tracked, Wire-guided (TOW) missiles over the fielded High Mobility Multipurpose Wheeled Vehicle (HMMWV). The missile reload process is slow and difficult for crews.
- All JLTVs are not operationally suitable because of deficiencies in reliability, maintainability, training, manuals, crew situational awareness, and safety.[40]

JLTV Full-Rate Decision Delayed[41]

Reportedly, the Army decided to delay JLTV full-rate production, previously scheduled for December 2018, until the early summer of 2019, in order to assess options for vehicle design changes suggested by soldiers and marines during testing, potentially resulting in a program schedule breach. Reportedly, the full-rate production decision could have been delayed until June 2019, but beyond that, it could trigger a Nunn-McCurdy[42] breach, requiring, among other things, a report to Congress and a new program schedule.

Command, December 20, 2018, and "First Joint Light Tactical Vehicles Rolling to the Field," Army News Service, December 20, 2018.

[39] The Director, Operational Test & Evaluation (DOT&E) is the principal staff assistant and senior advisor to the Secretary of Defense on operational test and evaluation (OT&E) in DOD. DOT&E is responsible for issuing DOD OT&E policy and procedures; reviewing and analyzing the results of OT&E conducted for each major DOD acquisition program; providing independent assessments to Secretary of Defense, the Under Secretary of Defense for Acquisition, Technology and Logistics (USD [AT&L]), and Congress; making budgetary and financial recommendations to the Secretary of Defense regarding OT&E; and overseeing major DOD acquisition programs to ensure OT&E is adequate to confirm operational effectiveness and suitability of the defense system in combat use. http://www.dote.osd.mil/about/mission.html, accessed February 14, 2019.

[40] Director, Operational Test & Evaluation (DOT&E), FY2018 Annual Report, December 2018, p. 87.

[41] Information in this section is taken from Jason Sherman, "Army Delays JLTV Full-Rate Production to Consider Potential Design Changes," *InsideDefense.com*, February 8, 2019.

[42] The Nunn-McCurdy Act (10 U.S.C. §2433) requires the DOD to report to Congress whenever a Major Defense Acquisition Program (MDAP) experiences cost overruns that exceed certain thresholds. The purpose of the act is to help control cost growth in major defense systems by holding the appropriate Pentagon officials and defense contractors publicly accountable and responsible for managing costs. When MDAPs experience cost growth of 15% from their current baseline or 30% from their original baseline, they are in a "significant" Nunn-McCurdy Unit Cost Breach. Sponsors must notify Congress within 45 calendar days after the report upon which the determination is based. When MDAPs experience cost growth of 25% from their current baseline or 50% from their original baseline, they are in a "critical" Nunn-McCurdy Unit Cost Breach. Programs in "critical" breach status are subject to detailed review for potential termination; http://acqnotes.com/acqnote/careerfields/nunn-mccurdy-act, accessed February 15, 2019. For

Army Approves JLTV Full-Rate Production[43]

On June 20, 2019, the ASA (ALT) approved Army JLTV full-rate production. The Army also noted that in addition to the Fort Stewart, GA 1st Brigade, 3rd Infantry Division, JLTVs had been successfully fielded to the Ordnance School at Ft. Lee, VA, the Reserves 84th Training Command at Ft. McCoy, WI, the Marine School of Infantry – West at Camp Pendleton, CA, and the Marine School of Infantry – East at Camp Lejeune, NC.

Marine Corps Addresses DOT&E Concerns and JLTV Fielding Plans[44]

Marine Corps program officials reportedly worked through a number of the problems addressed in DOT&E's FY2018 Annual Report. They suggest that many of the problems identified in the report can be addressed through improved tactics, techniques, and procedures and that some of the issues identified, such as insufficient training manuals, were a result of program decisions resulting from budget restrictions placed on the service. Marine officials also noted that legacy HMMWVs had similar challenges identified during testing in 1986, but these issues were resolved after fielding. In terms of reliability and maintainability, Marine officials noted HMMWVs go between 500 to 600 miles between operational mission failures, compared to the JLTV's requirement of 2,400 miles before operational mission failure, which the JLTV has surpassed during its developmental testing. Compared to HMMWVs, the JLTV is said to be less burdensome in terms of maintenance, although JLTV maintenance may take a little longer due to a need to remove armored panels and a more complex engine.

The Marines reportedly planned to field its first 55 JLTVs to support units at training locations, including the School of Infantry West, School of Infantry East, and the Motor Transport Maintenance Instructional Company, by the end of May 2019. Beginning in July 2019, operational units are planned to receive their first vehicles (3rd Battalion, 8th Marines at Camp Lejeune, NC), which will also signify the Marines Initial Operational capability (IOC). By the end of FY2019, all three Marine Expeditionary Forces (MEFs)—1st MEF in Camp Pendleton, CA; 2nd MEF in Camp Lejeune, NC; and 3rd MEF in Okinawa, Japan—will have received some combination of all variants.

Army Considers Reducing Overall JLTV Acquisition[45]

On March 13, 2019, Army leadership reportedly announced the Army was considering lowering its overall requirement for JLTVs. In order to free up funding for modernization, the Army decided to cut funding over the next five years for 93 programs—including the JLTV. Army officials noted the service already has 55,000 HMMWVs and 800 Infantry Squad Vehicles

additional information, see CRS Report R41293, *The Nunn-McCurdy Act: Background, Analysis, and Issues for Congress,* by Moshe Schwartz and Charles V. O'Connor.

[43] Program Executive Office for Combat Support & Combat Service Support, "Amy Approves JLTV Full-Rate Production" June 21, 2019.

[44] Information in this section is taken from Mallory Shelbourne, "Marine Corps to Field First JLTV, is Addressing DOT&E Concerns," *InsideDefense.com*, February 27, 2019, and Megan Eckstein, "Marine Corps Fields First JLTV this Week; IOC Planned for July," U.S. Naval Institute, February 27, 2019.

[45] Information in this section is taken from Jen Judson, "U.S. Army Cuts Current Vehicle Fleet to make way for Next-Gen Tech," *InsideDefense.com,* March 13, 2019, and Matthew Cox, "Army to Cut JLTV Buy to Pay for Future Systems," *Militray.com,* March 13, 2019.

(ISVs), contending the Army "has more capability than we need."[46] Army officials reportedly were looking to lower the overall requirement for JLTVs and would determine "a new top line requirement soon."[47] On March 14, 2019, it was reported the Army planned to buy 1,900 fewer JLTVs than originally planned, reducing program funding by nearly $800 million over the Future Years Defense Plan (FYDP).[48]

Department of Defense (DOD) FY2021 Budget Request[49]

The FY2021 presidential budget request includes RDT&E and procurement funding requests, as well as FY2021-requested quantities in the base budget and Overseas Contingency Operations (OCO) budget request.

Table 1. FY2021 DOD Budget Request—JLTV

Funding Category	Base Budget	Base Budget	OCO Budget	OCO Budget	Total Request	Total Request
	$M	Qty	$M	Qty	$M	Qty
RDT&E USA	1.7	—	—	—	1.7	—
RDT&E USMC	2.5	—	—	—	2.5	—
Procurement USA	894.4	3,254	—	—	894.4	3,254
Procurement USAF	72.6	201	8.0	15	80.6	216
Procurement USN	11.1	25	—	—	11.1	25
Procurement USMC	381.7	752	—	—	381.7	752
TOTAL	**1,364.0**	**4,232**	**8.0**	**15**	**1,372.0**	**4,247**

Source: Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, Program Acquisition Cost by Weapon System: United States Department of Defense Fiscal Year 2021 Budget Request, February 2020, p. 3-2.

Notes: $M = U.S. Dollars in Millions; **Qty** = FY2021 Procurement Quantities.

FY2021 JLTV Program Reduction and Extended Procurement[50]

In order to free up funds for other Army modernization priorities, the Army plans a program reduction in FY2021 of $201.6 million and will now extend the JLTV procurement by three years

[46] Matthew Cox, March 13, 2019.

[47] Jen Judson, March 13, 2019.

[48] Ashley Tressel, "Army Vehicles Pay the Bill for Modernization in First Round of Cuts," *InsideDefense.com*, March 14, 2019.

[49] Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, Program Acquisition Cost by Weapon System: United States Department of Defense Fiscal Year 2021 Budget Request, February 2020, p. 3-2.

[50] Department of Defense Fiscal Year (FY) 2021 Budget Estimates, February 2020, Army Justification Book of Other Procurement, Army Other Procurement, Army, Tactical and Support Vehicles, Budget Activity 1, pp. 99-109 and

until 2042. The Army's approved Army Procurement Objective (APO) continues to be 49,909 vehicles. It is not known how this extended procurement will impact the Army's overall fielding plan or if future efforts to free up modernization funds will result in a lowered APO.

Army Plans to Re-Compete JLTV Follow On Contract[51]

The Army also has indicated it plans compete a follow-on contract to be awarded in FY2022 intended to split the procurement between Oshkosh and a new competitor in order to drive down costs. Depending on the outcome of this competition, the Army's procurement strategy and timeline might potentially change again.

Potential Issues for Congress

Will the JLTV Become the Major Bill Payer for Army Modernization?

With the Army's decision to reduce JLTV funding by $201.6 million in FY2021 and previous statements about having "more capability than we need,"[52] some may question if the JLTV will become the major bill payer for Army modernization, by reducing in its procurement objective and/or by extending the overall procurement timeline, thereby pushing costs further into the future. As it stands at present, there appears to be a degree of program uncertainty as well as questions concerning the validity of the Army's original requirements and plans for the JLTV.

Compounding this, some defense experts have speculated the Marine Corps might cut their JLTV buy as the JLTV might prove to be too heavy for the Marine's planned pivot to a more expeditionary form of warfare.[53] If this becomes the case and the Army reduces its JLTV buy to fund modernization, there could be appreciable programmatic impacts of interest to policymakers.

What is the Future of JLTV Procurement?[54]

The Army's current modernization[55] strategy is primarily focused on its six modernization priorities which does not include the JLTV. The possibility of the Marine Corps adopting a more expeditionary posture and requiring fewer JLTVs than originally planned suggests original JLTV procurement plans for the two major service customers might no longer be relevant. Despite the Army's intent to lower costs by competing a follow on contract with another vendor by FY2022, some experts note slowing production rates and extended procurement timelines can act to

Ashley Tressel, "Army Stretching JLTV Buy to 2042," *InsideDefense.com,* February 11, 2020, and "Mobile Medium Range Missile Among Programs Army Wants to Cancel," *InsideDefense.com,* February 13, 2020.

[51] Ibid.

[52] Matthew Cox, March 13, 2019.

[53] Charlie Gao, "Is the U.S. Army's Joint Light Tactical Vehicle in Trouble?" *The National Interest,* February 15, 2020.

[54] Information in this section is taken from Yasmin Tadjdeh, "Bumps in the Road May Lie Ahead for JLTV Procurement," *National Defense,* January 30, 2020, and Charlie Gao, "Is the U.S. Army's Joint Light Tactical Vehicle in Trouble?" The National Interest, February 15, 2020.

[55] For additional information on Army modernization see CRS Report R46216, *The Army's Modernization Strategy: Congressional Oversight Considerations,* by Andrew Feickert and Brendan W. McGarry.

increase costs. In addition, different versions of the JLTV produced by another vendor could result in additional operations and maintenance costs which can result from a mixed fleet of

vehicles. Taken collectively, these issues might merit DOD and policymakers examining the future of JLTV procurement to help determine the current requirement for JLTVs as well as if decisions to extend procurement and re-compete future production will result in increased programmatic costs.

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