Congressional Research Service
Informing the legislative debate since 1914

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

Updated June 24, 2019

Congressional Research Service
https://crsreports.congress.gov
RS22942

CRS REPORT
Prepared for Members and
Committees of Congress

Summary

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. Up to three EMD contracts scheduled for June could have been awarded. 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. FY2015 program plans anticipated a Milestone C (Production and Deployment Phase Approval) decision in the fourth quarter of FY2015, followed by Low Rate Initial Production (LRIP).

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 have not demonstrated effective test results to prepare the JLTV program for full rate production, but the JLTV Program Office has plans to address this concern. The Director, Operational Test and Evaluation (DOT&E) FY2018 Annual Report notes among other findings that JLTVs are not operationally suitable because of deficiencies in reliability, maintainability, training, manuals, crew situational awareness, and safety. On March 14, 2019, Army leadership reportedly announced the Army was lowering its overall requirement for JLTVs by 1,900 vehicles in order to free up funding for modernization. On June 20, 2019, the Army authorized JLTV full-rate production.

The FY2020 Research, Development, Test and Evaluation (RDT&E) and Procurement JLTV budget request for all four services is $1.641 billion for 4,090 vehicles. In its FY2020 authorizations and appropriations reports, the defense committees were supportive of some service-requested funding realignments but also made a number of programmatic reductions as well. Potential issues for Congress include (1) the possible examination of the DOD Inspector General's Report and DOT&E's FY2018 Annual Report findings and full-rate JLTV production, (2) the potential consequences of the delayed full-rate JLTV production decision, and (3) the implications of the Army's new top-line JLTV requirement.

Contents

Background 1
The JLTV Program 1
What Is the JLTV? 1
Program Structure 2
Past Program History 2
Technology Development Contracts Awarded 2
JLTV Contracts Protested 3
Change in Requirements, Program Schedule, and Variants 3
Army Issues RFP for EMD Phase 3
JLTV EMD Contracts Awarded 3
Army Releases Final RFP for JLTV Full-Rate Production 4
Bids Submitted for JLTV Low-Rate Initial Production (LRIP) 4
Army Awards JLTV Contract 5
Lockheed Martin's JLTV Protest 5
Lockheed Martin Files Protest with the Government Accountability Office (GAO) 5
Army Stops Work on the JLTV Contract 5
Lockheed Martin Withdraws JLTV Protest from United States Court of Federal Claims 6
JLTV LRIP Production Begins 6
Delay in JLTV Initial Operating Capability (IOC) 6
Army Places $100 Million Order for JLTVs 6
Recent JLTV Program-Related Developments 6
Air Force JLTV Acquisition 6
Marines Increase JLTV Requirement to 9,091 Vehicles 7
British Foreign Military Sales (FMS) Purchase of JLTV 7
JLTV Procurement Extended One Year and Increased Total Program Cost 7
DOD Inspector General (IG) Report and JLTV Production 7
First Units Receive JLTV 8
Director, Operational Test and Evaluation (DOT&E) FY2018 Annual Report 8
JLTV Full-Rate Decision Delayed 8
Army Approves JLTV Full-Rate Production 9
Marine Corps Addresses DOT&E Concerns and JLTV Fielding Plans 9
Army Reduces Overall JLTV Acquisition 10
Department of Defense (DOD) FY2020 Budget Request 10
FY2020 National Defense Authorization Act 11
H.R. 2500 11
RDT&E 11
Procurement 11
S. 1790 11
RDT&E 11
Related Report Language 12
Procurement 12
Related Report Language 12
Department of Defense Appropriation Bill FY2020 13

H.R. 2968 13
Potential Issues for Congress..... 13
DOD Inspector General's Report and DOT&E's FY2018 Annual Report Findings and Full-Rate JLTV Production 13
What Are Potential Consequences of a Delayed Full-Rate JLTV Production Decision?..... 14
Implications of the New Top-Line JLTV Requirement..... 14

Tables

Table 1. FY2020 DOD Budget Request—JLTV 10

Contacts

Author Information..... 15

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 have 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 mission categories: the JLTV Combat Tactical Vehicle (CTV), which seats four passengers, and the JLTV Combat Support Vehicle (CSV), which seats two passengers.[4] The JLTV Combat Tactical Vehicle has a 3,500 lb. payload capacity and comes in three variants:

- the General Purpose (GP) variant;
- the Heavy Guns Carrier (HGC) variant; and
- the Close Combat Weapon carrier (CCWC) variant.[5]

The JLTV Combat Support Vehicle has a 5,100 lb. payload capacity and comes in one variant: the Utility (UTL) Prime Mover variant, which can accommodate a shelter.[6]

As planned, JLTVs would be mechanically reliable, maintainable (with on-board diagnostics), all-terrain mobile, and equipped to link into current and future tactical data nets. Survivability and strategic and operational transportability by ship and aircraft are also key JLTV design requirements.

[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, http://peocscss.tacom.army.mil/pmJLTV.html, last visited March 2, 2011, and Marine Corps PEO Land Systems Joint Light Tactical Vehicle website, http://www.marcorsyscom.usmc.mil/peolandssystems/jltv.aspx, last visited March 2, 2011, and Tony Bertuca, "PMs: JLTV Still Too Heavy, Changing Schedule and Losing Six-Man Variant," *InsideDefense.com*, February 11, 2011.

[4] Director, Operational Test and Evaluation, FY2018 Annual Report, December 2018, p. 87.

[5] Ibid.

[6] Ibid.

Program Structure[7]

The JLTV is an Acquisition Category (ACAT) 1D program.[8] 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.

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."[9] On February 5, 2008, an RFP for Technology Development Phase was issued to industry.[10] 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[11]

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.

---

[7] CRS Report RL34026, *Defense Acquisitions: How DOD Acquires Weapon Systems and Recent Efforts to Reform the Process*, by Moshe Schwartz, provides an extensive discussion of the defense acquisition process.

[8] 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)."

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

[10] 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.

[11] 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.

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.[12] 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.

Change in Requirements, Program Schedule, and Variants[13]

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,[14] 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[15]

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.[16] 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

[12] 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.

[13] 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.

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

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

[16] 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.

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."[17]

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 vehicles at their own risk and expense, if they notified the government within 30 days of the EMD contract award.[18] Reports suggested some bidders considered continuing development of JLTV candidates for submission for production source selection.[19]

Army Releases Final RFP for JLTV Full-Rate Production[20]

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)[21]

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.

[17] 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.

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

[19] Ibid.

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

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

Army Awards JLTV Contract[22]

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.[23] 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.

Lockheed Martin's JLTV Protest

Lockheed Martin Files Protest with the Government Accountability Office (GAO)[24]

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.[25]

Army Stops Work on the JLTV Contract[26]

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."[27] 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.[28] 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.[29]

---

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

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

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

[25] Ibid.

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

[27] Ibid.

[28] 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.

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

Lockheed Martin Withdraws JLTV Protest from United States Court of Federal Claims[30]

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

JLTV LRIP Production Begins[31]

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.[32]

Delay in JLTV Initial Operating Capability (IOC)[33]

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[34]

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.

Recent JLTV Program-Related Developments

Air Force JLTV Acquisition[35]

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,

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

[31] 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.

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

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

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

[35] 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.

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[36]

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. 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[37]

The British Army will reportedly acquire 2,747 JLTVs, valued at more than $1 billion, through the Foreign Military Sales (FMS) process.[38] 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[39]

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[40]

A redacted May 2, 2018, DOD IG report notes that, while the Army and Marine Corps developed adequate test plans, the services have 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

[36] Lee Hudson, "Marine Corps Official Says Commandant Seeks More Than 9,000 JLTVs," *InsideDefense.com,* May 17, 2017, and "Marines Will Adjust JLTV Quantity Requirement in a Couple of Years," *InsideDefense.com,* June 19, 2017.

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

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

[39] 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.

[40] 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.

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[41]

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 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)[42] FY2018 Annual Report

Among other things, DOT&E's FY2018 Annual Report contends 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.[43]

JLTV Full-Rate Decision Delayed[44]

Reportedly, the Army has 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 can be delayed until June 2019, but

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

[42] 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.

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

[44] 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.

beyond that, it could trigger a Nunn-McCurdy[45] breach, requiring, among other things, a report to Congress and a new program schedule.

Army Approves JLTV Full-Rate Production[46]

On June 20, 2019, the Assistant Secretary for Army Acquisition, Logistics, and Technology 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[47]

Marine Corps program officials reportedly have 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 plan 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,

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

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

[47] 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.

CA; 2nd MEF in Camp Lejeune, NC; and 3rd MEF in Okinawa, Japan—will have received some combination of all variants.

Army Reduces Overall JLTV Acquisition[48]

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 (ISVs), contending the Army "has more capability than we need."[49] Army officials reportedly were looking to lower the overall requirement for JLTVs and would determine "a new top line requirement soon."[50] 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).[51]

Department of Defense (DOD) FY2020 Budget Request[52]

The FY2020 presidential budget request includes RDT&E and procurement funding requests, as well as FY2020-requested quantities in the base budget and Overseas Contingency Operations (OCO) budget request.

Table 1. FY2020 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	2.7	—	—	—	2.7	—
RDT&E USMC	2.1	—	—	—	2.1	—
Procurement USA	996.0	2,530	—	—	996.0	2,530
Procurement USAF	32.0	65	41.0	75	73.0	140
Procurement USN	9.6	22	—	—	9.6	22
Procurement USMC	558.1	1,398	—	—	558.1	1,398
TOTAL	**1,600.6**	**4,015**	**41.0**	**75**	**1,641.6**	**4,090**

[48] 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.

[49] Matthew Cox, March 13, 2019.

[50] Jen Judson, March 13, 2019.

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

[52] Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, Program Acquisition Cost by Weapon System: United States Department of Defense Fiscal Year 2020 Budget Request, March 2019, p. 3-2.

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 2020 Budget Request, March 2019, p. 3-2.

Notes: $M = U.S. Dollars in Millions; **Qty** = FY2020 Procurement Quantities.

FY2020 National Defense Authorization Act

H.R. 2500[53]

RDT&E

H.R. 2500 authorizes an additional $4.5 million for Army JLTV RDT&E ($7.232 million) to support an Army-requested realignment.[54] H.R. 2500 authorized fully funding the Marines' JLTV RDT&E request.[55]

Procurement

H.R. decreased the Army's FY2020 JLTV Procurement request by $19.5 million (to $976.5 million) to support an Army-requested transfer to RDT&E ($4.5 million) and simulator delay ($ 15 million).[56] H.R. 2500 reduced the Air Force's Base FY 2020 JLTV Procurement request by $10 million (to $22 million) due to a program reduction [57] and fully funded the Air Force's Overseas Contingency Operations (OCO) JLTV Procurement request.[58] H.R. 2500 reduced the Navy's JLTV Procurement request by $1.4 million (to $8.2 million) due to JLTV contract delay.[59] H.R. 2500 reduced the Marine Corps' FY2020 JLTV Procurement request by $ 2 million (to $ 556 million) due to Engineering Change Proposal (ECP) previously funded.[60]

S. 1790[61]

RDT&E

S. 1790 authorizes an additional $4.5 million for Army JLTV RDT&E ($7.232 million) to support an Army-requested realignment.[62] S.1790 authorized fully funding the Marines JLTV RDT&E request.[63]

[53] H.R. 2500 (H.Rept. 116-120) National Defense Authorization Act for Fiscal Year 2020, June 19, 2019.

[54] Ibid., p. 458.

[55] Ibid., p. 469.

[56] Ibid., 400.

[57] Ibid., p. 433.

[58] Ibid., p. 449.

[59] Ibid., p. 422.

[60] Ibid., p. 425.

[61] S. 1790 (Report No. 116-48) National Defense Authorization Act for Fiscal Year 2020, June 11, 2019.

[62] Ibid., p. 936.

[63] Ibid., p. 940.

Related Report Language

Joint Light Tactical Vehicle[64]

The budget request included $2.7 million in Research, Development, Test, and Evaluation (RDT&E), Army, for PE 65812A Joint Light Tactical Vehicle (JLTV) Engineering and Manufacturing Development.

The Army has requested a zero sum realignment of $4.5 million from line number 6 of Other Procurement, Army (OPA), to PE 65812A in RDT&E, Army.

Therefore, the committee recommends an increase of $4.5 million in RDT&E, Army, for PE 65812A.

Procurement

S. 1790 decreased the Army's FY2020 JLTV Procurement request by $39.5 million (to $956.507 million) to support an Army-requested realignment and because of early to need.[65] S. 1790 authorized full funding of the Air Force's Base[66] and Overseas Contingency Operations (OCO)[67] FY2020 JLTV Procurement request. S. 1790 also authorized full funding of the Navy's[68] and Marine Corps'[69] FY2020 JLTV Procurement requests.

Related Report Language

Joint Light Tactical Vehicle[70]

The budget request included $996.0 million in line number 6 of Other Procurement, Army (OPA), for the procurement of 2,530 Joint Light Tactical Vehicles (JLTV).

The Army has requested a zero sum realignment of $4.5 million from line number 6 of OPA to PE 65812A in Research, Development, Test, and Evaluation, Army, in order to complete the developmental portion of the Training, Aids, Devices, Simulators and Simulation Hands-On Trainers requirement for the JLTV.

Therefore, the committee recommends a decrease of $4.5 million in line number 6 of OPA.

Joint Light Tactical Vehicle[71]

The budget request included $996.0 million in line 6 of Other Procurement, Army (OPA), for the procurement of 2,530 Joint Light Tactical Vehicles (JLTV).

---

[64] Ibid., p. 74.

[65] Ibid., 418.

[66] Ibid., p. 449.

[67] Ibid., p. 473.

[68] Ibid., p. 438.

[69] Ibid., p. 441.

[70] Ibid., p. 17.

[71] Ibid.

The JLTV is capable of performing multiple mission roles and is designed to provide protected, sustained, and networked mobility for personnel and payloads across the full range of military operations.

However, the committee believes that the Army should make a full rate production decision as soon as possible. Therefore, the committee recommends a decrease of $35.0 million in line 6 of OPA.

Department of Defense Appropriation Bill FY2020

H.R. 2968[72]

RDT&E

H.R. 2968 appropriates $7.232 million, a $4.5 million increase to the Army's FY2020 JLTV RDT&E request (from $2.732 million) to support an Army requested transfer from OPA line 6.[73] H.R. 2968 appropriates full funding for the Marine Corps' FY2020 JLTV RDT&E request ($2.1 million).[74]

Procurement

H.R. 2968 appropriates $976.507 million, $19.5 million less than the Army's FY2020 JLTV Procurement request ($996.007 million) for excess training growth ($15 million) and to support an Army-requested transfer to RDT&E A line 169 ($4.5 million).[75] H.R. 2968 appropriates $555.648 million, $2.459 million less than the Marine Corps' FY2020 JLTV Procurement request ($558.107 million) due to engineering change orders previously funded.[76] H.R. 2968 appropriates full funding of the Air Force's Base[77] and Overseas Contingency Operations (OCO)[78] FY2020 JLTV Procurement request. H.R. 2968 also authorized full funding of the Navy's FY2020 JLTV Procurement request.[79]

Potential Issues for Congress

DOD Inspector General's Report and DOT&E's FY2018 Annual Report Findings and Full-Rate JLTV Production

A redacted May 2, 2018, DOD Inspector General's (IG's) report notes the Army and Marine Corps 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

[72] H.Rept. 116-84, Department of Defense Appropriations Bill, 2020.

[73] Ibid., p. 240.

[74] Ibid., p. 249.

[75] Ibid., p. 152.

[76] Ibid., p. 194.

[77] Ibid., p. 212.

[78] Ibid., p. 365.

[79] Ibid., p. 182.

capabilities be developed to address the shortfall, but specifics were redacted in the public version of the report. DOT&E's FY2018 Annual Report noted the following:

- All JLTVs are not operationally suitable because of deficiencies in reliability, maintainability, training, manuals, crew situational awareness, and safety.
- 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.

Military officials involved with the JLTV program appear to be minimizing these findings, reportedly suggesting some of these unspecified problems are "minor improvements identified by soldiers and Marines during testing."[80] Another report alleges the Army "did not respond to questions about the production decision nor the recent DOT&E report, which detailed several JLTV problems."[81] The Army's decision to delay full-rate JLTV production until June 20, 2019, not only affected the Army, but could affect the other services as well. To reconcile possible concerns, a detailed look at the DOD IG's and DOT&E's findings and the actions that will be required to rectify identified deficiencies could be in order. Such an examination could help policymakers determine if these deficiencies are minor in nature, or if more extensive and potentially time-consuming and expensive corrective actions will be required.

What Are Potential Consequences of a Delayed Full-Rate JLTV Production Decision?

While it is not yet known how the Army's delay in full-rate JLTV production until June 20, 2019, will affect the program, it might be considered prudent for policymakers to examine the potential consequences of the Army's delayed full-rate production decision. While this seven month delay might be inconsequential, the Army might wish to address possible implications in terms of:

- program schedule;
- program cost;
- service allocation of JLTVs;
- overall fielding plan;
- training and readiness of units receiving JLTVs; and
- potential Foreign Military Sales (FMS).

Implications of the New Top-Line JLTV Requirement

The Army's March 14, 2019, announcement that it was planning to reduce its overall requirement for JLTVs by 1,900 vehicles to help free up funding for modernization raises potential issues for Congress. With the Army reportedly suggesting it has more light tactical vehicle capability than it needs with existing HMMWVs and ISVs, questions could arise as to the accuracy of the Army's original JLTV requirements process. Other questions could arise as well: With a revised overall

[80] Jason Sherman, "Army Delays JLTV Full-Rate Production to Consider Potential Design Changes," *InsideDefense.com*, February 8, 2019.

[81] Ashley Roque, "U.S. Army Delays JLTV Production Decision, Oshkosh Addressing Technical Challenges," Jane's Defence Weekly, February 6, 2019.

JLTV requirement, what is the Army's new fielding plan to units? With fewer JLTVs to be fielded, what is the overall operational impact to the force? With an overall JLTV reduction, will the Army's Reserve Components receive fewer JLTVs than originally planned? Finally, will this new revised JLTV requirement be final, or is it possible the Army might again reduce overall JLTV requirements to free up funding for other higher-priority programs, or if future budget reductions are imposed on the Army?

Author Information

Andrew Feickert
Specialist in Military Ground Forces

Disclaimer

This document was prepared by the Congressional Research Service (CRS). CRS serves as nonpartisan shared staff to congressional committees and Members of Congress. It operates solely at the behest of and under the direction of Congress. Information in a CRS Report should not be relied upon for purposes other than public understanding of information that has been provided by CRS to Members of Congress in connection with CRS's institutional role. CRS Reports, as a work of the United States Government, are not subject to copyright protection in the United States. Any CRS Report may be reproduced and distributed in its entirety without permission from CRS. However, as a CRS Report may include copyrighted images or material from a third party, you may need to obtain the permission of the copyright holder if you wish to copy or otherwise use copyrighted material.