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

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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. Once testing was completed and technology requirements established, a full and open competition was expected to be conducted in the late summer of 2011 for the Engineering and Manufacturing Development (EMD) Phase; the Department of Defense (DOD) planned to award two contracts for the EMD phase, which was scheduled to last 24 months.

In February 2011, it was announced the award of the EMD contract would be delayed until January or February 2012 because the Army changed requirements for the JLTV. DOD had planned to award two contracts for the EMD phase, which was scheduled to last 24 months, but instead proposed a 48-month-long EMD. There will be two JLTV variants—a Combat Tactical Vehicle (CTV) that can transport four passengers and carry 3,500 pounds and a Combat Support Vehicle (CSV) that can transport two passengers and carry 5,100 pounds.

On January 26, 2012, the Army issued the Request for Proposal (RFP) for the JLTV’s EMD phase. Up to three EMD contracts could be awarded, and contract award was scheduled for June 2012. The period of performance for EMD contracts is 27 months, with the overall EMD phase scheduled to last 33 months. Vendors would be required to provide 22 JLTV prototypes for testing 12 months after contract award. The target cost for the base vehicle is $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 Grounds, MD; Yuma, AZ; and Redstone Arsenal, AL. The Army then plans to select a single vendor by 2015, with the first Army brigade being equipped with JLTVs by 2018. FY2015 program plans anticipate a Milestone C (Production and Deployment Phase Approval) decision in the fourth quarter of FY2015, followed by low rate initial production (LRIP).

In June 2014, the Army issued a draft RFP for the JLTV Full-Rate Production Phase and plans to select a contract winner in July 2015. The Office of the Secretary of Defense recently conducted an interim review of the JLTV program and found it is likely to meet all eight key performance parameters.

The President’s FY2015 budget request calls for $229.3 million for Army and Marine RDT&E and Procurement funding for the JLTV. The House and Senate versions of the FY2015 National Defense Authorization Act recommend fully funding the Administration’s FY2015 JLTV budget request, as does the FY2015 Department of Defense appropriations bill.

A potential issue for Congress is how decreasing Army and Marine force structure affects the JLTV program. This report will be updated.
Background

The JLTV is an Army-led, multi-service initiative to develop a family of future light tactical vehicles to replace many of the 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 anti-vehicle explosive devices were not a major factor in military planning. The HMMWV’s 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.”

JLTV Program

What Is the JLTV?

The JLTV program is a joint Army/Marine Corps effort to develop and produce both vehicles and associated trailers. Originally, there were three variants, but now there are two planned JLTV variants: a four-passenger Combat Tactical Vehicle (CTV) and a two-passenger Combat Support Vehicle (CSV). As planned, JLTVs would be more 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.

Program Structure

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

References:

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).”
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.

Program History

In November 2006, the Joint Chief 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, John Young, 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.” On February 5, 2008, an RFP for Technology Development Phase was issued to industry. 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 sub-configurations during the first 15 months, followed by 12 months of testing.

Technology Development Contracts Awarded

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. As a result

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of the 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\textsuperscript{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,\textsuperscript{11} but instead opted for a 48-month-long EMD phase before awarding Production and Deployment contracts in the second quarter of FY2016. In addition, the Category B variant was eliminated because it proved to be too heavy to meet the required weight of approximately 15,639 pounds to make it transportable by Army CH-47F and Marine Corps CH-53K helicopters. Now there will 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\textsuperscript{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 will 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.

Revised Acquisition Quantities\textsuperscript{13}

According to DOD’s May 2013 JLTV Selective Acquisition Report (SAR), the Army plans to procure 49,909 JLTVs from FY2015 to FY2040 and the Marines 5,500 JLTVs from FY2015 to FY2021. The SAR also notes no JLTVs are planned for under Foreign Military Sales (FMS).

\textsuperscript{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.

\textsuperscript{11} DOD Briefing: “JLTV EMD Industry Day,” April 26, 2010.

\textsuperscript{12} Solicitation, Offer, and Award, Number W56HZV-11-R-0329, U.S. Army Contracting Command, January 26, 2012.

\textsuperscript{13} Department of Defense Selected Acquisition Report (SAR) Joint Light Tactical Vehicle (JLTV), May 21, 2013.
Foreign Participation in JLTV Program

As previously noted, the JLTV SAR indicates that no Foreign Military Sales are currently planned for JLTV, despite previous program participation from Australia and interest from Canada, Great Britain, and Israel. When the JLTV Joint Program Office (JPO) was asked to clarify foreign participation in the JLTV program, the following response was provided:

International cooperation in acquisition programs can substantially improve U.S. operations, and the JLTV program is no different. This important work increases military effectiveness by improving interoperability and partnership with our allies, reducing overall acquisition costs, and strengthening key relationships. Australia did participate in the Technology Demonstration phase of the JLTV program, but no international partners are currently and actively participating in the Engineering and Manufacturing Development phase. International participation or purchase remains possible and an area JPO JLTV would pursue as appropriate with interested allies and partners.14

This suggests there is no longer any foreign participation in the JLTV program. Congress might wish to examine why these countries are no longer interested in the JLTV program, as foreign participation in these types of programs not only increases interoperability but can also benefit these programs from a cost perspective.

Program Activities

Marines Might Acquire JLTVs over a Longer Period15

Reports suggest that the Marines remain committed to acquiring 5,500 JLTVs, particularly in light of the fact that procurement of the Amphibious Combat Vehicle (ACV)16 will not begin until FY2020, thereby providing a degree of funding flexibility. The Marines had originally intended to procure their JLTVs up front and are now supposedly working with the Army to determine how many JLTVs each service can buy per year.

The Marines have reportedly decided to cancel their HMMWV upgrade program and will instead invest the funds in the JLTV program.17 The Marines plan to reprogram $53 million of about $57 million requested for the FY2015 HMMWV Sustainment Modification Initiative into the JLTV program. The remaining $4 million dollars in the HMMWV upgrade program will be used to modify a selected number of HMMWVs not being replaced by JLTVs, and these HMMWVs are expected to remain in service until 2030.

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14 Email to CRS from JLTV JPO, June 11, 2013.
16 For additional information on the Amphibious Combat Vehicle see CRS Report R42723, Marine Corps Amphibious Combat Vehicle (ACV) and Marine Personnel Carrier (MPC): Background and Issues for Congress, by Andrew Feickert.
A Change to JLTV Competitors

Based on what is viewed as increased support by Congress and DOD, as well as changes to the JLTV program schedule, requirements, and cost, additional teams submitted bids on March 27, 2012, for the EMD phase contract. The six teams that submitted bids were

- AM General;
- a Lockheed Martin-led team including BAE Systems;
- Oshkosh;
- Navistar;
- General Tactical Vehicles (a joint venture between AM General and General Dynamics Land Systems); and
- a BAE Systems-led team including Northrop Grumman.

While increased competition for the EMD contracts could result lower per unit costs for the JLTV, one defense analyst suggests it is also indicative of fewer opportunities for defense industry to design and manufacture new Army ground vehicles in the future.

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. 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 is for 27 months, with each contractor receiving initial funding between $28 million to $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 will be required to deliver 22 full-up prototypes and contractor support for a 14-month comprehensive government testing program, which will include blast, automotive, and user evaluation testing. The overall EMD Phase is 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.”

Unsuccessful bidders, Navistar Defense, BAE Systems, and General Tactical Vehicles (a team of General Dynamics and AM General), are permitted to continue developing JLTV candidate vehicles at their own risk and expense, if they notify the government within 30 days of the EMD contract award. Reports suggest some bidders might consider continuing development of JLTV candidates for submission for production source selection.

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21 Tony Bertuca, “Three JLTV Winners Announced; Loosing Companies Still May Have a Shot,” InsideDefense.com, (continued...)
Army Releases JLTV Market Survey\textsuperscript{23}

On March 26, 2013, the Army released a market survey intended to gauge the level of industry interest and ability to compete for a potential JLTV contract. The intent is to see what non-EMD vendors might be interested in competing for the final contract award, thereby possibly increasing competition and perhaps driving down costs. It is not known if there will be any non-EMD bidders, and Federal Acquisition Regulations prohibit the Army from disclosing the name of interested parties.

DOD Selected Acquisition Report (SAR)\textsuperscript{24}

DOD’s May 2013 JLTV SAR has established the JLTV per-unit cost at about $400,000 per vehicle, which contrasts with service leaders’ claims that JLTV per-unit cost would be around $250,000 per vehicle. The SAR further notes that the JLTV’s total development and acquisition cost is expected to be almost $23 billion in 2012 dollars. With a planned JLTV procurement of 55,000 vehicles, DOD estimates an average per unit cost of $399,000 per vehicle and a program acquisition cost of $415,000 per vehicle. In terms of future year dollars, the unit cost is projected to reach $550,000 with a total development and acquisition cost in excess of $31 billion. The Army, in defense of its $250,000 per-unit cost estimate, noted the SAR’s cost estimates include associated vehicle hardware and other costs, such as add-on armor, fielding, new equipment training, spare parts, and managerial and technical personnel associated with the vehicle program.

JLTV Testing Begins\textsuperscript{25}

On September 4, 2013, Army officials announced that full-pace, full-scope testing of the JLTV began on September 3 and would last for 14 months. Each of the three vendors delivered 22 vehicles and 6 trailers for testing to three sites: Aberdeen Proving Ground, MD; Yuma, AZ; and Redstone Arsenal, AL. The Army plans to start a source-selection evaluation in early 2015 and select a single vendor by July 2015. Once the single vendor is selected, 2,000 vehicles will be produced and tested for three years. The first Army brigade will be equipped with JLTVs by 2018 and a total of 49,000 JLTVs will be produced for the Army and 5,500 for the Marines with production ending sometime in the 2030s.

(...continued)

August 23, 2012.

\textsuperscript{22} Ibid.


\textsuperscript{25} Information in this section is from David Vergun, “JLTV Testing Begins, Program on Schedule, Budget,” \textit{Army News Service}, September 5, 2013.
Draft RFP for JLTV Full-Rate Production Phase and DOD’s Program Assessment\(^\text{26}\)

On June 25, 2014, the Army released a draft RFP for the JLTV’s Full-Rate Production phase. The Army and Marines plan to select a contract winner in July 2015 at a total projected program cost of $31 billion by 2040. The Office of the Secretary of Defense (OSD) conducted an interim assessment of the JLTV program and found the JLTV is likely to meet all eight key performance parameters (KPPs)—which are deemed “critical or essential” to JLTV operational capabilities—and are on track to meet two of four key system attributes (KSAs).\(^\text{27}\) The two KSAs that OSD has yet to assess are average unit manufacturing cost and ownership cost.\(^\text{28}\)

Budgetary Issues

FY2015 President’s Budget Request\(^\text{29}\)

The President’s FY2015 budget request for the JLTV is as follows:

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<th>Quantity</th>
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<td>RDT&amp;E—Marines</td>
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\(^{28}\) Ibid.


**Joint Light Tactical Vehicle**

The budget request contained $45.7 million in PE 65812A, and $11.5 million in PE 65812M to complete the engineering and manufacturing development phase of the Joint Light Tactical Vehicle (JLTV) program. The budget request also contained $164.6 million in Other Procurement, Army, and $7.5 million in Procurement, Marine Corps for the procurement of 183 low-rate initial production JLTVs.

The Joint Light Tactical Vehicle (JLTV) will complement the current fleet of Up-Armor high mobility, multi-purpose wheeled vehicles and would provide improved protection, payload, and performance to the Army’s and the Marine Corps’ light tactical wheeled vehicle fleets.

The committee notes the budget request would mark the first year of procurement for JLTV, and would also complete limited user testing. The committee supports the JLTV program and recognizes that the program remains on schedule despite the impacts resulting from the Budget Control Act of 2011 (Public Law 112–25), and understands a milestone C decision is scheduled for June 2015.

The committee notes that JLTV does not have any significant technology issues that would preclude development. Therefore, the committee expects the program to remain on schedule. The committee notes the JLTV program is the only new tactical wheeled vehicle modernization program for the foreseeable future, and the committee believes the JLTV program will be critical for maintaining the viability of the industrial base.

The committee recommends $45.7 million in PE 65812A, $11.5 million in PE 65812M, and elsewhere in this report, $164.6 million in Other Procurement, Army, and $7.5 million in Procurement, Marine Corps, the full amount of the total request, for the JLTV program.³¹

**S. 2410, National Defense Authorization Act for FY2015**³²

**Joint Light Tactical Vehicle**

The budget request included $45.7 million in PE 65812A, $11.5 million in PE 65812M, $164.6 million in Other Procurement, Army, and $7.5 million in Procurement, Marine Corps for research, development, and low rate initial production (LRIP) of the Joint Light Tactical Vehicle (JLTV). The committee notes that, according to the Vice Chief of Staff of the Army, General John Campbell, JLTV is the centerpiece of the Army’s tactical wheeled vehicle modernization strategy. The committee further notes that fiscal year 2015 is a critically important year for this program. Over the last 3 years, the joint program office has been managing the development and testing of prototype vehicles provided by three competing tactical vehicle vendor teams. This competitive prototyping acquisition strategy is consistent with the requirements of the Weapons System Acquisition Reform Act of 2009 (Public Law 111–23) and in 2015 will result in the selection of a single vendor for award of a LRIP

³¹ Ibid.
contract for up to 183 Army and Marine Corps vehicles. The committee recommends full funding as requested for JLTV and expects the program to remain on schedule for its Milestone C decision in June 2015.  

H.R. 4870, Department of Defense Appropriations Bill, 2015

The House and Senate recommended fully funding the Administration’s FY2015 budget request for both JLTV RDT&E and Procurement.

Potential Issue for Congress

Revised Tactical Wheeled Vehicle Requirements

While it is not expected that the Army’s JLTV requirements will vary greatly under the Army’s study of tactical wheeled vehicle requirements, Congress might opt to review revised JLTV requirements. In June 2013, the Army announced it would eliminate 12 BCTs and an unspecified number of headquarters and support units, and these cuts should be reflected in the Army’s soon-to-be-released study. It has also been reported that based on downsizing, the Army plans to reduce its overall tactical wheeled vehicle fleet by 60,000 vehicles. Since these announcements, the 2014 Quadrennial Defense Review and FY2015 President’s budget request suggest additional Army and Marine force structure could be cut, thereby likely further decreasing JLTV requirements. In this regard, Congress could review proposed Army and Marine force structure cuts to determine if overall service JLTV requirements have also decreased proportionally. If overall JLTV requirements do not change under reduced force structures, the services could instead opt to field JLTVs to other units that were not originally designated to receive JLTVs. These potential force structure cuts could have an appreciable impact on overall JLTV requirements and the overall program price tag as well.

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33 Ibid.
34 Report 113-211, Department of Defense Appropriations Bill, 2015, July 17, 2014.
35 For additional information on Army downsizing see CRS Report R42493, Army Drawdown and Restructuring: Background and Issues for Congress, by Andrew Feickert.