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

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## Definitions
- **Joint Light Tactical Vehicle (JLTV)**: A multirole platform for all-terrain operations, combining light-vehicle agility with robust protection.

## Background
The JLTV project was announced by the U.S. Department of Defense in 2005, targeting a vehicle designed to replace several existing light tactical vehicles. The project faced challenges including cost overruns, delays, and technical issues.

## Key Issues
1. **Cost Overruns**: The initial estimate of $11 billion for 72,000 vehicles has increased significantly.
2. **Performance Issues**: Questions about the vehicle’s ability to meet all mission requirements, including mobility and protection.
3. **Procurement Strategy**: Uncertainty around the procurement strategy, including the number of vehicles to be purchased and the allocation to different services.

## Conclusion
The JLTV project continues to be a subject of congressional interest, with ongoing discussions about its effectiveness and cost-benefit analysis.

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**Note**: This summary is an adapted version for clarity and conciseness. The full report includes detailed analysis and references.
Summary

The Joint Light Tactical Vehicle (JLTV) is being developed by the Army and the Marine Corps as a successor to the 11 different versions of the High Mobility, Multi-Wheeled Vehicle (HMMWV) that have been in service since 1985. On October 28, 2008, three awards were made for the JLTV Technology Development (TD) Phase, which is scheduled to conclude in the June 2011 timeframe, 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 that 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 may be awarded, and contract award is scheduled for June 2012. The EMD phase will last 27 months, and vendors will be required to provide 22 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.

Australia is reportedly “not committed” to participating in the EMD phase, and the new RFP has no Australia-specific requirements—such as right-hand drive. Furthermore, the Australian Ministry of Defense (MOD) is said to be looking at a domestic variant of the JLTV, although they stated that they would continue to monitor the JLTV program.

Ford Motor Company expressed an interest in late 2011 about entering the JLTV EMD competition, noting that it could deliver a superior product quicker and cheaper than the current vendors. Because the Army was unwilling to extend the EMD RFP beyond its March 13, 2012, deadline to accommodate Ford, Ford indicated it would not participate. Some in Congress have questioned why the Army can not modify its RFP, noting the benefits of having the nation’s second-largest auto manufacturer back in the business of building military vehicles.

The FY2013 Budget Request for JLTVs is $72.3 million for Army Research, Development, Test and Evaluation (RDT&E) and $44.5 million for Marine Corps RDT&E, for a program total of $116.8 million.

Potential issues for Congress include clarification of foreign participation in the JLTV program, given Australia’s apparent non-participation, and how the Army’s upcoming study to revise overall tactical wheeled vehicle requirements might affect the JLTV program. This report will be updated.
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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 within the Army’s Tank, Automotive, and Armament Command (TACOM) in Warren, MI. Marine participation is centered

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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).”
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 that 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 TDP 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 that 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 this 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.

**JLTV Phase of Development**

The JLTV Program is currently in the Technology Development (TD) Phase\textsuperscript{10} of acquisition, which was originally scheduled to conclude in the June 2011 timeframe.\textsuperscript{11} Prototypes from BAE Systems, and the teams of Lockheed Martin and General Tactical Vehicle, and AM General and General Dynamics Land Systems for each of the three JLTV categories are being tested at Aberdeen Test Center in Maryland and the Yuma Proving Ground in Arizona. 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.\textsuperscript{12} Changing requirements, as detailed in the next section, resulted in the delay of concluding the TD phase until January 2012.

**Program Developmental Issues**

**Change in Requirements, Program Schedule, and Variants\textsuperscript{13}**

In February 2011, the JLTV Program Office announced that 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{14} 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) 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.

\textsuperscript{10} From the November 2009 Defense Acquisition University Glossary of Defense Acquisition Acronyms & Terms, the Technology Development (TD) Phase is the second phase of the Defense Acquisition Management System and the purpose of this phase is to reduce technology risk and to determine the appropriate set of technologies to be integrated into the full system.


\textsuperscript{12} The EMD phase for the JLTV program will focus on reducing program risk, ensuring operational supportability, designing for producibility, maximizing affordability, ensuring critical program information protection, and demonstrating system integration, interoperability, transportability, fuel efficiency, reliability, and utility.

\textsuperscript{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.

\textsuperscript{14} DOD Briefing: “JLTV EMD Industry Day,” April 26, 2010.
Army Issues RFP for EMD Phase\textsuperscript{15}

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

Foreign Participants

United States and Australia Agree on Joint JLTV Development\textsuperscript{16}

In February 2009, the Pentagon and the Australian Department of Defense signed an agreement to coordinate the technology development for the JLTV. Under this agreement, 30 JLTV prototypes would be developed, with the United States funding the development of 21 prototypes and Australia funding 9. Australia reportedly has a need for about 1,300 to 1,400 vehicles with requirements similar to the JLTV, although Australian defense officials note that Australia’s participation in JLTV technology development does not automatically mean that they will eventually procure JLTVs. At a February 2011 conference, Australian defense officials noted that their current planned procurement quantity for right-hand drive JLTVs was 1,300 with about 900 for general purposes and 400 for utility missions.\textsuperscript{17}

Australia Reportedly “Not Committed to JLTV EMD Phase”\textsuperscript{18}

A report suggests that Australia has yet to commit any funds to the EMD phase and might be pursuing its own developmental effort. The Army’s recent EMD RFP did not include any requirements that would be unique to Australia, such as a right-hand drive requirement, and in December 2011, the Australian government reportedly selected a vehicle developed by Thales-Australia for possible development, with production work in Australia commencing as early as 2016. Reports from the Australian Ministry of Defense (MOD) suggest that a final decision has not yet been made and the MOD would continue to monitor the JLTV program. It was also noted that Australia did not participate in the TD phase initially and that it is still possible that it might opt to participate in the EMD phase. The 1,300 JLTVs that Australia planned to buy are valued at about $1.5 billion.

\textsuperscript{15} Solicitation, Offer, and Award, Number W56HZV-11-R-0329, U.S. Army Contracting Command, January 26, 2012.


\textsuperscript{17} Information is from a briefing from the Project Manager Joint Combat Support Systems on the Joint Light Tactical Vehicle given on February 7 and 8, 2011.

Additional Foreign Participants

According to the JLTV Program Office, in addition to Australia, Israel, Great Britain, and Canada participated in the TD phase in various capacities. The Program Office has established working groups with Israel, Great Britain, and Canada, although the extent of the participation as well as the number of JLTVs that they might consider procuring was not made public.

Possible Acquisition Targets

Army

The EMD RFP calls for at least 20,000 JLTVs for the Army with the option to procure additional vehicles.

Marines

The Marines’ procurement quantity is planned for 5,500 vehicles, with 4,650 being CTVs and 850 CSVs. This procurement quantity is likely dependent upon reducing vehicle cost and weight.

Navy

The Navy has recently expressed a desire to participate in the JLTV program. If the Navy does participate, it would require from 400 to 500 CTVs and from 150 to 200 CSVs.

Air Force and Special Operations Command (USSOCOM)

The Air Force and USSOCOM might also participate in the JLTV program, but USSOCOM’s participation might be limited as it has its own Family of Special Operations Vehicles Program to develop a wide range of special operations-unique vehicles, including light tactical vehicles.

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19 Information is from a briefing from the Project Manager Joint Combat Support Systems on the Joint Light Tactical Vehicle given on February 7 and 8, 2011.

Recent Program Activities

Marines Might Defer JLTV Acquisition Until Late 2020s\(^\text{21}\)

Marine leaders reportedly testified to the House Armed Services Subcommittee on Tactical Air and Land Forces on November 16, 2011, that if significant budget cuts are enacted due to sequestration of the defense budget under the provisions of the Budget Control Act of 2011, P.L. 112-25, the Marines would defer acquisition of the JLTV until the late 2020s. The Marines would instead develop and procure the Amphibious Combat Vehicle (ACV) before acquiring any JLTVs. Experts suggest that if the Marines defer until the late 2020s, the per vehicle cost for the Army’s JLTVs—which it hopes to begin procuring in 2015—would increase and possibly endanger the overall program.

Ford Motor Company Involvement with the JLTV Program

In late 2011, Ford Motor Company, the second-largest U.S. automaker, began discussions with DOD about the possibility of competing to build the JLTV\(^\text{22}\). Ford left the military tactical vehicle business in the early 1980s after more than two decades of producing Jeeps and other trucks. Ford believes it can leverage its commercial truck line and, in partnership with a defense contractor, develop the JLTV quicker and cheaper than current proposals\(^\text{23}\). Ford and its teammates, including Raytheon, contend among other things:

- Given a total order of 20,000 vehicles over six to eight years (2,000 to 3,000 vehicles per year) Ford’s JLTV version (named the Joint Marine Army Vehicle, or JMAV) would cost $225,000 or less per vehicle under a firm, fixed-price contract, $200,00 or less in quantities above 50,000.
- The Ford team would bear the entire cost of approximately $400 million to build production-ready prototypes, meaning that no EMD phase would be required.
- JMAV production could start by late 2015, sooner if DOD accelerates JLTV testing and evaluating schedules\(^\text{24}\).

Reportedly, Ford would need an additional 14 months to produce prototypes required under the current RFP\(^\text{25}\). The Army reportedly has not been receptive to modifying the EMD RFP to accommodate Ford, noting “we have to be fair to industry as a whole … should we structure the program around one potential vendor based on where they’re at in their design process?”\(^\text{26}\) The

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\(^{23}\) Ibid.

\(^{24}\) December 12, 2011 Briefing provided to CRS by Ford Motor Company/Future Force Innovation representative.


Army Program Manager for JLTV noted the EMD RFP would be closed on March 13, 2012, as stated in the RFP. In addition to difficulties with the RFP deadline, Ford reportedly took issue with the EMD RFP, noting “no credit will be given for proposed performance above threshold or at objective levels” as Ford contends the JMAV would meet or exceed RFP performance requirements. Given these and other concerns, Ford has reportedly decided not to compete in the JLTV EMD phase.

Some in Congress reportedly would like to see the Army give the Ford team more time so they could compete for the JLTV contract. Representative Duncan Hunter (R-CA) reportedly asked Army leaders to give Ford Motor Co. more time so it could compete for the JLTV EMD contract, noting the Ford version of the JLTV “could save us $100 billion.” Secretary of the Army John McHugh suggested “it would be a very tenuous decision to pull back an RFP based on a single manufacturer saying what they may or may not be able to do when they chose not to compete” and further noted it might be illegal to “pull” the current JLTV EMD RFP, although the Army pulled the Ground Combat Vehicle (GCV) RFP in 2010 and republished it later with downgraded requirements. Army leaders also noted extending the JLTV schedule by a year to accommodate Ford could endanger future program funding. Representative Hunter contends the Army’s unwillingness to accommodate Ford was indicative of ongoing problems with DOD’s acquisition program and Ford’s participation in the JLTV program would be an excellent opportunity to re-engage the U.S. auto industry as well as improve the overall health of the U.S. defense industrial base.

January 26, 2012, Administration Major Strategic and Budget Decision Briefings

On January 26, 2012, senior DOD leadership unveiled a new defense strategy, based on a review of the current defense strategy and budgetary constraints. This new strategy envisions among other things:

- a smaller, leaner military that is agile, flexible, rapidly deployable, and technologically advanced; and
- rebalancing global posture and presence, emphasizing where potential problems are likely to arise, to Asia-Pacific and the Middle East.

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27 Ibid.
28 Ibid.
29 Ibid.
31 Ibid.
The Administration’s new strategy and budget priorities specifically reference the JLTV, noting DOD intends to “protect” the JLTV program and HMMWV modernization would be terminated so that resources could be focused on the JLTV. These decisions are viewed by many as highly supportive of the JLTV program and represent a commitment to developing and fielding the JLTV.

Revised Army Tactical Wheeled Vehicle Requirements

Given the Administration’s decision to decrease the Active Army by 80,000 soldiers and eliminate at least eight Brigade Combat Teams (BCTs), the Army is planning to reduce its tactical wheeled vehicle fleet and reportedly will release the results of its study in spring 2012. It is not yet known what the study will recommend in terms of numbers and types of JLTVs the Army will require in the future, but it can be assumed—based on the aforementioned DOD budgetary commitment to the JLTV—that required JLTV quantities will not be reduced significantly and might possibly increase due to de-emphasis on HMMWV modernization.

Budgetary Issues

FY2013 JLTV Budget Request

The FY2013 Budget Request for JLTVs is $72.3 million for Army Research, Development, Test and Evaluation (RDT&E) and $44.5 million for Marine Corps RDT&E, for a program total of $116.8 million.

Potential Issues for Congress

Clarification on Foreign Participation

With questions about Australia’s commitment to the JLTV EMD phase, Congress might wish to further explore foreign interest in the JLTV with DOD. The Administration’s commitment to the JLTV program might serve as an inducement to those countries who have already expressed an interest in the JLTV and possibly other countries with whom the United States wishes to further engage as part of the strategic shift to the Asia-Pacific and Middle Eastern regions.

Army’s Revised Tactical Wheeled Vehicle Requirements

While it is not expected that the Army’s JLTV requirements will vary greatly under the Army’s forthcoming study of tactical wheeled vehicle requirements, Congress might opt to review revised Army JLTV requirements. It has been suggested that the Army could eliminate as many as 13

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BCTs—five more than the DOD-mandated eight BCTs to be cut under FY2013 budget guidelines—and an unspecified number of headquarters and support units and that these cuts should be reflected in the Army’s soon-to-be-released study. With the possible restructuring of Army BCTs, it is also possible that there might be additional requirements for different JLTV variants and these requirements should also be reflected in the Army’s study. In addition, the Army’s study might also be scrutinized to ensure that currently planned JLTV production matches the Army’s plans to downsize and reorganize its forces.

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