Teleport Generation 3 (Teleport Gen 3)

Defense Acquisition Management
Information Retrieval
(DAMIR)
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</table>
Common Acronyms and Abbreviations for MAIS Programs

Acq O&M - Acquisition-Related Operations and Maintenance
ADM - Acquisition Decision Memorandum
AoA - Analysis of Alternatives
ATO - Authority To Operate
APB - Acquisition Program Baseline
BY - Base Year
CAE - Component Acquisition Executive
CDD - Capability Development Document
CPD - Capability Production Document
DAE - Defense Acquisition Executive
DoD - Department of Defense
DoDAF - DoD Architecture Framework
FD - Full Deployment
FDD - Full Deployment Decision
FY - Fiscal Year
IA - Information Assurance
IATO - Interim Authority to Operate
ICD - Initial Capability Document
IEA - Information Enterprise Architecture
IOC - Initial Operational Capability
IP - Internet Protocol
IT - Information Technology
KPP - Key Performance Parameter
$M - Millions of Dollars
MAIS - Major Automated Information System
MAIS OE - MAIS Original Estimate
MAR – MAIS Annual Report
MDA - Milestone Decision Authority
MDD - Materiel Development Decision
MILCON - Military Construction
MS - Milestone
N/A - Not Applicable
O&S - Operating and Support
OSD - Office of the Secretary of Defense
PB - President's Budget
RDT&E - Research, Development, Test, and Evaluation
SAE - Service Acquisition Executive
TBD - To Be Determined
TY - Then Year
U.S.C- United States Code
USD(AT&L) - Under Secretary of Defense for Acquisition, Technology, & Logistics
Program Information

Program Name
Teleport Generation 3 (Teleport Gen 3)

DoD Component
DoD

The acquiring DoD Component is the Defense Information Systems Agency.

Responsible Office

Program Manager
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Ft. Meade, MD 20755-0549

Phone: 301-225-8596
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Date Assigned: September 4, 2014

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References

MAIS Original Estimate
February 25, 2015

Approved APB
Component Acquisition Executive (CAE) Approved Acquisition Program Baseline (APB) dated June 15, 2015
Program Description

Department of Defense (DoD) Teleport is a collaborative investment within the Department and among the Services that provides deployed Warfighters with seamless worldwide multi-band Satellite Communication (SATCOM) reach-back capabilities to the Defense Information System Network (DISN). The DoD Teleport upgrades selected sites from the Standardized Tactical Entry Point (STEP) program, which only provides reach-back via X-band SATCOM and doesn't meet the growing throughput requirements of the deployed Warfighter.

The DoD Teleport upgrade adds communications support in the Ultra High Frequency (UHF), Extremely High Frequency, military Ka and Commercial (i.e., C and Ku) SATCOM frequency bands and represents a ten-fold increase to the throughput and functional capabilities of these STEP sites. The Teleport system provides deployed forces with interfaces for high-throughput multi-band and multimedia connectivity from deployed locations to DISN and DoD Information Network (DoDIN) information sources and support. Teleport capabilities are being deployed incrementally in a multi-generational program across multiple Fiscal Years (FY 2001-FY 2020); having completed Generation 1 and 2.

Teleport Generation 3 will field three satellite gateway enhancements, which will be implemented in three phases. Phase 1 will provide Advanced Extremely High Frequency Extended Data Rate capabilities to Warfighters worldwide by installing terminals from the Navy Multiband Terminal program at Teleport and other gateway sites. Teleport Generation 3 Phase 2 will provide enhanced Wide band Global System X/Ka-band capability to Warfighters worldwide by installing terminals from the Modernization of Enterprise Terminal program at Teleport and other gateway sites. Teleport Generation 3 Phase 3 will provide interoperability between Mobile User Objective System (MUOS) users and Legacy UHF users by installing MUOS-to-Legacy UHF SATCOM Gateway Component suites of equipment at Teleport/gateway sites. Integrating these enhancements will provide increased satellite connectivity through technology refreshment of older communication suites and expand the DoD Teleport system's capacity, throughput, and functional capabilities to greatly enhance support to tactical and deployed Warfighters worldwide.
Business Case

Business Case Analysis, including the Analysis of Alternatives (AoA): Key functional requirements for this program, which were articulated in the Operational Requirements Document (ORD) on May 20, 2010, are summarized as follows:

The DoD Teleport Program acquisition supports core, priority functions of the Department. Teleport directly supports DoD and DISA efforts to transition to a net-centric environment to transform the way DoD shares information by making data continuously available in a trusted environment. The Teleport system is an integral part of the GIG, as described in the approved GIG architecture. It also contributes to DoD core capabilities, most specifically those for Information Dominance and Interoperability that are required by Joint Vision 2020. On August 12, 2009, Office of the Secretary of Defense/Cost Assessment and Program Evaluation accepted the conclusions documented in the Generation 3 AoA and approved this document as being acceptable for implementing Generation 3. The original Teleport AoA was updated in November 2005 and examined six alternative concepts employing Commercial off-the-shelf (COTS) products to ensure standardized, proven equipment configurations to meet the Joint Staff validated capacity requirements and Key Performance Parameters (KPPs) contained in the ORD. Each alternative uses a standardized suite of equipment and other elements including the time phasing of equipment, the master list of equipment, and net-centric baseband. The component cost estimates were readily obtained since Generation Two used primarily non-developmental, commercially available equipment that was procured and used in other programs. The Generation 3 Phase 1 leveraged this AoA to formulate the Phase 1 architecture as part of the Critical Design Review (CDR) held on May 21, 2010, and subsequent CDR report that was approved by the Assistant Secretary of Defense, Networks and Information Integration, in a CDR Assessment Memorandum, signed August 3, 2010. Using the CDR baselined architecture, an Economic Analysis (EA) for the first phase of Generation 3 was completed on June 25, 2010. The Teleport Generation 3 Phase 1 EA assesses the costs and benefits of continuing Generation 3 Phase 1 in the joint Department of Defense Teleport Program versus having the military services pursue the same capabilities independently (Status Quo Baseline). This analysis was required as part of the pre-Milestone C documentation efforts that led to an Acquisition Decision Memorandum (ADM) for the Teleport Generation 3 program on September 13, 2010.

Firm, Fixed-Price Feasibility: The determination of the development/integration contract type was based on cost and technical risk associated with satisfying the requirement. When making the selection of contract type to execute the program’s next acquisition phase, the Milestone Decision Authority will choose between fixed-price and cost-type contracts consistent with the level of cost and technical risk associated with the effort.

Independent Cost Estimate: Since the business case was last certified, the Milestone Decision Authority was delegated by Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics (OUSD(AT&L)) to the DISA Component Acquisition Executive (CAE). In 2013, the DoD Teleport Generation 3 acquisition experienced a critical schedule change to its Phase 3 Milestone C date. Due to the delegation of decision authority, an independent cost estimate was not required as part of the critical change process. The DISA Component Financial Executive (CFE) provided a revised lifecycle cost estimate to Director of Cost and Assessment Program Evaluation (D,CAPE), factoring in the cost changes from the critical change. D,CAPE reviewed and approved this revised cost estimate.

Certification of Business Case Alignment; Explanation: I certify that all technical and business requirements have been reviewed and validated to ensure alignment with the business case. This certification is based on my review of the ORD, AoA, and EA described above.

Business Case Certification:
Name: Mr. Alfred A. Schenck
Organization: Defense Information Systems Agency for Teleport Gen 3
CAC Subject: CN=SCHENCK.ALFRED.A.1057426639,OU=DISA,OU=PKI,OU=DoD,O=U.S. Government,C=US
Date: 3/7/2014 01:54 PM
Business Case Changes

There has been no significant change to the Business Case since it was last certified.
Program Status

**Annual Report:** The program is substantially on track to remain within the schedule, cost and performance thresholds identified in the Original Estimate; there have been no Significant or Critical Changes (as defined by 10 U.S.C. Chapter 144A) reported since the previous MAIS Annual Report to Congress.

The program recently achieved a FDD from the MDA on February 13, 2015.
## Schedule

<table>
<thead>
<tr>
<th>Schedule Events</th>
<th>Original Estimate</th>
<th>Current Estimate (Or Actual)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen 3 MDD</td>
<td>Mar 2010</td>
<td>Mar 2010</td>
</tr>
<tr>
<td>Phase 1 MS C AEHF XDR</td>
<td>Aug 2010</td>
<td>Sep 2010</td>
</tr>
<tr>
<td>Phase 2 MS C WGS X/Ka</td>
<td>Jan 2012</td>
<td>Jun 2012</td>
</tr>
<tr>
<td>GEN 3 FDD²</td>
<td>Aug 2014</td>
<td>Feb 2015</td>
</tr>
<tr>
<td>Phase 3 MS C MUOS-Legacy¹</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>GEN 3 FD</td>
<td>Jul 2019</td>
<td>Jul 2019</td>
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</tbody>
</table>

### Memo

1/ Generation 3 Phase 3 MS C MUOS-Legacy revised program milestone dates are due to delays specific to the MUOS interface capability which will not be available in time to support the MLGC Operational Assessment. The Teleport Phase 3 MS C objective will occur within six months of a successful MLGC MS C decision. The threshold will occur within 12 months. A 12-month duration schedule threshold is based on the historical uncertainties of the MUOS program’s MOT&E, thus warranting the duration between schedule objective and threshold.

2/ The MDA issued an ADM on February 13, 2015 granting approval of the FDD.

### Acronyms and Abbreviations

- MLGC - MUOS to Legacy UHF SATCOM Gateway Component
- MOT&E - Multiservice Operational Test & Evaluation
- MUOS - Mobile User Objective System
- SATCOM - Satellite Communications
- WGS - Wideband Global SATCOM
- X/Ka - Dual X- and Ka-band
- XDR - Extended Data Rate
## Performance

<table>
<thead>
<tr>
<th>Performance Characteristics</th>
<th>Original Estimate Objective/Threshold</th>
<th>Current Estimate (Or Actual)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coverage</td>
<td>1. Teleports positioned to allow the Warfighter communications with at least three (3) DoD Teleports in all bands provided that satellite coverage exists for that area.</td>
<td>1. 365 days per year and 24 hours per day 2. In all latitudes between 65° North and 65° South (worldwide) 3. Teleports positioned to allow the Warfighter communications with at least two (2) DoD Teleports in all bands provided that satellite coverage exists for that area.</td>
</tr>
<tr>
<td><strong>Capacity 1</strong></td>
<td>1. Provide 100% of the projected 2004 required Legacy Tactical C4I services as identified in the GEN 3 ORD 2. Provide 100% of the projected 2010 required DISN Services to support two overlapping wars. 3. Provide 100% of the projected 2010 required SATCOM throughput to support two overlapping wars. 4. Provide 100% of the projected 2010 required Legacy Tactical C4I services as identified in the Gen 3 ORD Update.</td>
<td>1. Provide 100% of the projected 2004 required DISN services to support day-to-day operations and one SSC. 2. Provide 100% of the projected 2004 required SATCOM throughput to support day-to-day operations and one SSC. 3. Provide 100% of the projected 2006 required DISN services for one MCO. 4. Provide 100% of the projected 2006 required SATCOM throughput for one MCO.</td>
</tr>
<tr>
<td><strong>Capacity 2</strong></td>
<td>Provide 100% of the projected 2004 required DISN and SATCOM services to support one MCO within 30 days as identified in the ORD.</td>
<td>Provide 100% of the projected 2004 required DISN and SATCOM services to support one MCO within 30 days as identified in the ORD.</td>
</tr>
<tr>
<td><strong>Interoperability 1</strong></td>
<td>Access to legacy Tactical C4I services identified in the Gen 3 ORD Update. Access to Legacy Tactical C4I systems identified in the Gen 3 ORD Update.</td>
<td>Access to voice (DSN and DRSN), data (SIPRNET, NIPRNET and JWICS) and video (VTC) services. Access to DISN POPs for on demand transport and COI services.</td>
</tr>
<tr>
<td><strong>Interoperability 3</strong></td>
<td>100% accomplishment of all top-level IERs that directly interface the Teleport.</td>
<td>100% accomplishment of critical top-level IERs that directly interface the Teleport.</td>
</tr>
<tr>
<td><strong>Interoperability 5</strong></td>
<td></td>
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UNCLASSIFIED
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<tr>
<th><strong>Teleport</strong></th>
<th><strong>Protection</strong></th>
<th><strong>System</strong></th>
<th><strong>Memo</strong></th>
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<tbody>
<tr>
<td>Teleport shall provide the Warfighter access to network centric IP architecture.</td>
<td>Teloprt architecture shall conform to the GRA for Transformational Communications.</td>
<td>Teleport shall be interoperable with IP routing requirements for tactical users in accordance with a DoD-wide standard IP routing architecture.</td>
<td>Will meet objective</td>
</tr>
<tr>
<td>Interoperability 6</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Teleport architecture shall conform to the GRA for Transformational Communications.</td>
<td>Teleport architecture shall conform to the GRA for Transformational Communications.</td>
<td>Teleport shall be interoperable with IP routing requirements for tactical users in accordance with a DoD-wide standard IP routing architecture.</td>
<td>Will meet objective</td>
</tr>
<tr>
<td>Protection 1</td>
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<td></td>
</tr>
<tr>
<td>Protection 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ensure timely, accurate, and controlled information access to authorized personnel while denying adversaries the opportunity to exploit friendly information and information systems for their own purpose.</td>
<td>The DoD Teleport must support information environment protection, attack detection, capability restoration, data integrity, and attack response IAW CJCSI 6510.01 Series. 2. The DoD Teleport must support bulk encryption / TRANSEC capabilities of DISN, Legacy Tactical C4I, and SATCOM Components.</td>
<td>The DoD Teleport must support information environment protection, attack detection, capability restoration, data integrity, and attack response IAW CJCSI 6510.01 Series. 2. The DoD Teleport must support bulk encryption / TRANSEC capabilities of DISN, Legacy Tactical C4I, and SATCOM Components.</td>
<td>Will meet objective</td>
</tr>
<tr>
<td>Control and Network Management</td>
<td>Control and Network Management</td>
<td>Control and Network Management</td>
<td>Will meet threshold</td>
</tr>
<tr>
<td>Automated and remote.</td>
<td>Automated and remote.</td>
<td>Automated and remote.</td>
<td>Will meet threshold</td>
</tr>
<tr>
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<tr>
<td><strong>Memo</strong></td>
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</table>

1/ Capacity 2 Threshold. The DoD Teleport ORD, Generation 3 Update does not adequately address capacity for the Generation 3 Phases. For Generation 3 Phase 1, capacity threshold requirements are clarified by the “Joint Staff Teleport Generation 3 ORD Update Capacity” memo dated, July 8, 2010. For Generation 3 Phase 2, capacity threshold requirements are clarified by the "Satellite Throughput and Defense Information Services Network Requirements for Department of Defense Teleport Generation Three Phase Two" Memo dated December 16, 2010.

2/ Generation 3 is required to meet all RMF requirements. DIACAP references in Protection KPP were obsolete.
## Acronyms and Abbreviations

- **C4I** - Command, Control, Communications, Computers and Intelligence
- **CJCSI** - Chairman, Joint Chief of Staff Instruction
- **COI** - Communities of Interest
- **COTS** - Commercial of the Shelf
- **DIACAP** - DoD IA Certification and Accreditation Process
- **DISN** - Defense Information Systems Network
- **DRSN** - Defense Red Switch Network
- **DSN** - Defense Switched Network
- **EHF** - Extremely High Frequency
- **GRA** - Government Reference Architecture
- **IAW** - In Accordance With
- **IER** - Information Exchange Requirement
- **JWICS** - Joint Worldwide Intelligence Communications System
- **LDR** - Low Data Rate
- **MCO** - Major Combat Operations
- **MDR** - Medium Data Rate
- **NIPRNET** - Not Classified but Sensitive Internet Protocol Router Network
- **ORD** - Operational Requirements Document
- **POP** - Point of Presence
- **RMF** - Risk Management Framework
- **SATCOM** - Satellite Communications
- **SIPRNET** - Secret Internet Protocol Router Network
- **SSC** - Small Scale Contingence
- **TRANSEC** - Transmission Security
- **UHF** - Ultra High Frequency
- **VTC** - Video Teleconference
- **XDR** - Extended Data Rate
# Cost

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<thead>
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<th>Appropriation Category</th>
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<tr>
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<td>Original Estimate</td>
<td>Current Estimate Or Actual</td>
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<td>RDT&amp;E</td>
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<td>MILCON</td>
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<td>8.5</td>
<td>9.6</td>
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<tr>
<td>Acq O&amp;M</td>
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<td>6.1</td>
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<tr>
<td>Total Acquisition Cost</td>
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<td>239.9</td>
<td>282.4</td>
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<td>Operating and Support (O&amp;S) Cost</td>
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<td>Total Operating and Support (O&amp;S) Cost</td>
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<td>161.5</td>
<td>315.0</td>
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<tr>
<td>Total Life-Cycle Cost</td>
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<tr>
<td>Total Life-Cycle Cost</td>
<td>531.4</td>
<td>401.4</td>
<td>597.4</td>
<td>453.2</td>
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</table>

## Cost Notes

1. This report and the Budget Year IT-1 Exhibit cover different time periods thus the costs will not match.
2. Then Year dollars are included for information purposes only; cost variances will be reported against Base Year dollars.
3. The O&S costs reflect all work performed during that phase, regardless of the type or source of funding.