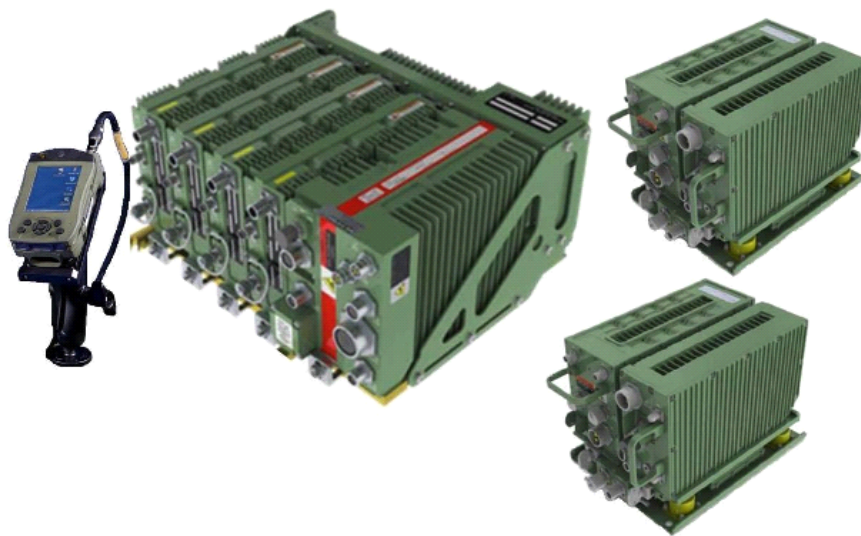




# Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-360



## JTRS GMR

As of June 30, 2011

Defense Acquisition Management  
Information Retrieval  
(DAMIR)

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UNCLASSIFIED

**Table of Contents**

Program Information .....	3
Responsible Office .....	3
References .....	3
Mission and Description .....	4
Executive Summary .....	5
Threshold Breaches .....	7
Schedule .....	8
Performance .....	10
Track To Budget .....	15
Cost and Funding .....	16
Low Rate Initial Production .....	27
Nuclear Cost .....	27
Foreign Military Sales .....	27
Unit Cost .....	28
Cost Variance .....	34
Contracts .....	37
Deliveries and Expenditures .....	38
Operating and Support Cost .....	39

## Program Information

### Designation And Nomenclature (Popular Name)

Joint Tactical Radio System (JTRS) Ground Mobile Radios (GMR)

### DoD Component

DoD

### Joint Participants

US Army; US Navy; US Air Force; US Marine Corps; Army is the lead Component per SECDEF Memo dated August 31, 2009

## Responsible Office

### Responsible Office

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**Date Assigned** August 28, 2009

## References

### SAR Baseline (Development Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated June 24, 2002

### Approved APB

DAE Approved Acquisition Program Baseline (APB) dated January 16, 2008

## **Mission and Description**

The JTRS Ground Mobile Radio (GMR) will enable the Services to acquire and field a family of affordable, scalable, high capacity, interoperable radio sets based on a common set of JTRS Application Programming Interfaces (APIs) developed in accordance with the JTRS Software Communications Architecture (SCA). JTRS GMR will provide networking capability using the Wideband Networking Waveform and Soldier Radio Waveform to connect unmanned sensors to decision makers "On-The-Move" (OTM), which will significantly reduce the decision cycle. JTRS GMR will provide the warfighter with mobile Internet-like capabilities such as voice, data, networking and video communications, as well as interoperability with current force and other JTRS radios across the battle space. The JTRS is a key enabler of the DoD and Army Transformation and will provide critical communications capabilities across the full spectrum of operations in a Joint environment. It is a Joint program encompassing the incorporation of the JTRS Network Enterprise Domain (NED) developed waveforms (porting) and Ground Vehicular applications.

## Executive Summary

This quarterly exception SAR is submitted to report a Nunn-McCurdy unit cost breach in accordance with section 2433 of Title 10 United States Code (USC).

In March 2011, based on the draft Army Network Basis of Issue Analysis, Program Manager (PM) GMR had reasonable cause to believe that the program would experience a critical Nunn-McCurdy breach against the current and original Acquisition Program Baselines (APBs). A Program Deviation Report (PDR) and Unit Cost Report (UCR) were submitted in accordance with DoDI 5000.02 Enclosure 4 and 10 USC 2433, and 10 USC 2435. On April 18, 2011, the Army Acquisition Executive concurred with PM GMR's determination that the GMR program had experienced a unit cost growth above critical Nunn-McCurdy thresholds. On April 26, 2011, an Army G3/5/7 memo was released, officially reducing the GMR quantity requirement from 86,209 to 10,293 units. This quantity reduction induced a critical unit cost growth for Program Acquisition Unit Cost (PAUC) and a significant cost growth for Average Procurement Unit Cost (APUC) against the current and original APBs.

As a result of the critical Nunn-McCurdy Breach, impacts to the GMR schedule have been incurred. Limited User Test (LUT) has been rescheduled to 2Q FY 2012 to ensure synchronization with the Army's Network Integration Evaluation (NIE) test schedule. This resulted in shifts of Milestone (MS) C, Multi-Service Operational Test and Evaluation (MOT&E), Full Rate Production (FRP), and Initial Operational Capability (IOC).

The critical Nunn-McCurdy process requires a review of program alternatives which can provide comparable capability at less cost. In anticipation of the way forward, GMR is working alternative acquisition strategies to lower unit cost and reduce Size Weight and Power (SWaP). In April 2011, GMR issued a Request for Information (RFI) for the GMR Low-Cost Reduced size, Weight and Power (SWaP) (LCRS) variant, requesting Industry feedback on availability of a non-developmental radio system/set. The RFI states that vendors may be required to demonstrate capability and performance during NIE, with a follow-on Development Test/Operational Test period, prior to contract production award. A decision whether to certify the program will be made no later than October 14, 2011.

On April 29, 2011, the Vice Chairman of the Joint Chiefs of Staff issued two memos, the first stating that the Joint Requirements Oversight Council (JROC) approved GMR's requested modification of the waveform Key Performance Parameter (KPP) in the Operational Requirements Document (ORD) 3.2.1 (Amendment). The memo changed the Enhanced Position Location Reporting System waveform from a Threshold to an Objective requirement across the JTRS Enterprise. The second memorandum approved changing the multi-channel routing and retransmission of non-Internet Protocol data to Internet Protocol data from a Threshold to an Objective requirement.

Field Experiment (FE) 5 effort completed March 2011. The purpose of conducting FE 5 was to verify corrections for software anomalies that were identified during System Integration Test (SIT) and Infantry Brigade Combat Team (IBCT)-LUT, and to verify readiness for the GMR Customer Test (CT), which completed June 2011. After compiling and analyzing the data of the completed FE 5, it was determined that WNW consistently forms mobile and static networks, while demonstrating the capability for nodes to leave and then re-join the network, form sub-networks for increased efficiency, deliver various types of user data required message completion rates, as well as dynamically route traffic for nodes not within direct Line-of-Sight of the transmitting node. Test results proved the ability of GMR to execute simultaneous operations of its six waveforms; Wideband Networking Waveform (WNW), Solider Radio Waveform (SRW), Single Channel Ground and Airborne Radio Systems (SINCGARS), Enhanced Position Location Reporting System (EPLRS), High Frequency (HF) and Satellite Communications (SATCOM), interoperate with legacy waveforms/radios, and in the case of WNW demonstrated its ability to use designated Favored (elevated) nodes to maintain network connectivity for nodes that would be otherwise isolated from the network due to terrain and/or distance. During FE 5, a series of seven node SRW networks were successfully deployed and demonstrated using voice and passing data that consistently met stated requirements. Several SINCGARS Frequency-Hopping/Cipher Text excursion tests validated the performance observed in SIT, showing equivalent or better performance than current force SINCGARS radios. Additionally, independent parallel testing was conducted by Joint Interoperability Test Command (JITC) to validate the GMR SINCGARS waveform met design standards and helped resolve concerns over platform integration on tactical vehicles. The formal report from JITC confirms all standards

have been met.

There are no significant software issues with the program as of this report.

### Threshold Breaches

APB Breaches	
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<b>Schedule</b>		<input checked="" type="checkbox"/>
<b>Performance</b>		<input type="checkbox"/>
<b>Cost</b>	RDT&E	<input checked="" type="checkbox"/>
	Procurement	<input type="checkbox"/>
	MILCON	<input type="checkbox"/>
	Acq O&M	<input type="checkbox"/>
<b>Unit Cost</b>	PAUC	<input checked="" type="checkbox"/>
	APUC	<input checked="" type="checkbox"/>

#### Explanation of Breach

Schedule: The program priority for FY 2011 continues to be developmental testing culminating in the Customer Test (CT) in 3Q FY 2011. Developmental Testing was extended to include additional performance data for the Wideband Networking Waveform (WNW), which was integral to the operation of the Ground Mobile Radios (GMR). The extension of developmental testing has resulted in a delay to the Operational Assessment and, subsequently, a delay to the Milestone (MS) C.

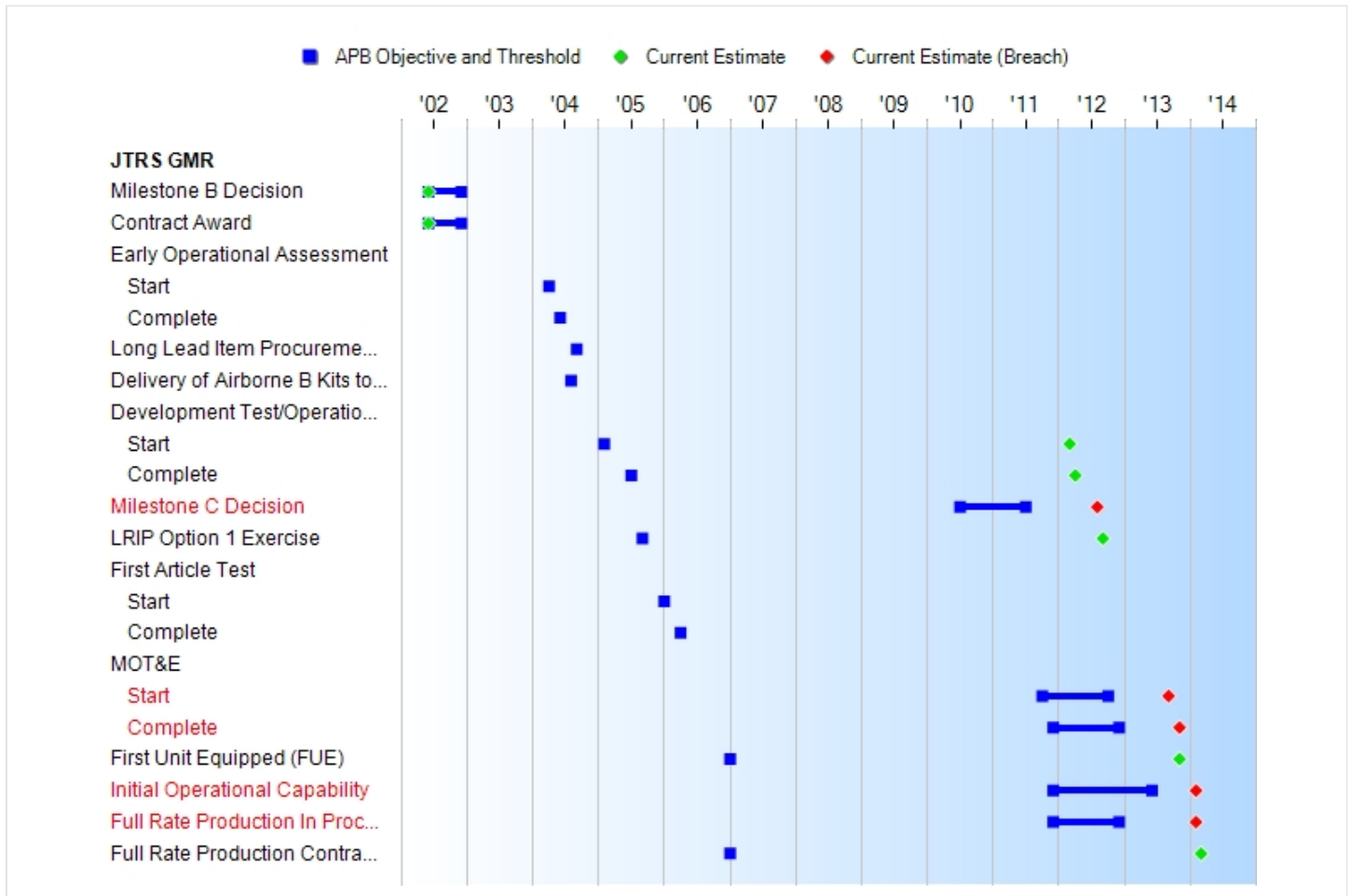
Nunn-McCurdy Breaches	
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<b>Current UCR Baseline</b>		
	PAUC	Critical
	APUC	Significant
<b>Original UCR Baseline</b>		
	PAUC	Critical
	APUC	Significant

Cost: The RDT&E cost breach was reported previously in the December 2010 SAR.

Unit Cost/Nunn-McCurdy: The unit cost increases are a result of significantly reduced procurement quantities. A memorandum validating this reduction was signed by the Army G-3/5/7 on April 26, 2011. A Program Deviation Report (PDR) and Unit Cost Report (UCR) were submitted to the Milestone Decision Authority (MDA) in April 2011.

### Schedule





Milestones	SAR Baseline Dev Est	Current APB Development		Current Estimate	
		Objective/Threshold			
Milestone B Decision	JUN 2002	JUN 2002	DEC 2002	JUN 2002	
Contract Award	JUN 2002	JUN 2002	DEC 2002	JUN 2002	
Early Operational Assessment					
Start	APR 2004	N/A	N/A	N/A	
Complete	JUN 2004	N/A	N/A	N/A	
Long Lead Item Procurement Option 1 Approval OIPT	SEP 2004	N/A	N/A	N/A	
Delivery of Airborne B Kits to Aviation for Airworthiness Certification and Integration	AUG 2004	N/A	N/A	N/A	
Development Test/Operational Test/Limited User Test					
Start	FEB 2005	N/A	N/A	MAR 2012	(Ch-1)
Complete	JUL 2005	N/A	N/A	APR 2012	(Ch-1)
Milestone C Decision	AUG 2005	JUL 2010	JUL 2011	<b>AUG 2012</b> <sup>1</sup>	(Ch-1)
LRIP Option 1 Exercise	SEP 2005	N/A	N/A	SEP 2012	(Ch-1)
First Article Test					
Start	JAN 2006	N/A	N/A	N/A	
Complete	APR 2006	N/A	N/A	N/A	
MOT&E					
Start	AUG 2006	OCT 2011	OCT 2012	<b>SEP 2013</b> <sup>1</sup>	(Ch-1)
Complete	OCT 2006	DEC 2011	DEC 2012	<b>NOV 2013</b> <sup>1</sup>	(Ch-1)
First Unit Equipped (FUE)	JAN 2007	N/A	N/A	NOV 2013	
Initial Operational Capability	N/A	DEC 2011	JUN 2013	<b>FEB 2014</b> <sup>1</sup>	(Ch-1)
Full Rate Production In Process Review	FEB 2007	DEC 2011	DEC 2012	<b>FEB 2014</b> <sup>1</sup>	(Ch-1)
Full Rate Production Contract Award	JAN 2007	N/A	N/A	MAR 2014	

<sup>1</sup>APB Breach

### Acronyms And Abbreviations

LRIP - Low Rate Initial Production  
MOT&E - Multi-Service Operational Test and Evaluation  
OIPT - Overarching Integrated Product Team

### Change Explanations

(Ch-1) As a result of the critical Nunn-McCurdy Breach, impacts to the GMR schedule have been incurred. The PMO has changed the previously scheduled March FY 2011 Limited User Test (LUT) for the program to a Customer Test (CT); formal LUT conduct has been shifted from March FY 2011 to March FY 2012 to ensure synchronization with the Army's Network Integration Evaluation (NIE) test schedule. Subsequently, MS C has been moved from September FY 2011 to September FY 2012, MOT&E start from October FY 2012 to September FY 2013, and IOC and FRP from March FY 2013 to February FY 2014.

## Performance

Characteristics	SAR Baseline Dev Est	Current APB Development Objective/Threshold		Demonstrated Performance	Current Estimate
Have an internal growth capability	Open System Architecture IAW JTA; Modular, Scaleable, Flexible Form Factors	Open system architecture in accordance with DISR; Modular, Scaleable, Flexible Form Factors	Open system architecture in accordance with DISR; Modular, Scaleable, Flexible Form Factors	TBD	Open system architecture in accordance with DISR; Modular, Scaleable, Flexible Form Factors.
JTR set modes/capabilities configuration and reconfiguration via software	By operators in their operational environment	By operators in their operational environment	By operators in their operational environment	TBD	By operators in their operational environment.
Multi-channel routing and retransmission	Objective waveforms that are compatible in mode (voice, data, or video) and use compatible data rates	Objective waveforms that are same in mode (voice, data, or video) and use like data rates and operate at permissible security classification levels	KPP waveforms that are same in mode (voice, data, or video) and use like data rates and operate at permissible security classification levels	TBD	KPP waveforms that are same in mode (voice, data, or video) and use like data rates and operate at permissible security classification levels.
Support time-critical waveforms	SINGARSE SIP (MIL-STD188-220) HAVE QUICK IIUHF D AMASATCOM (MIL-STD188-181) w/EPLRS WNW (new, modified or existing waveform) and non-	See Annexes D and F of ORD 3.2.1	See Annexes D and F of ORD 3.2.1	TBD	See Annexes D and F of ORD 3.2.1.

	KPP LINK-16 (-) for TACP				
Operate on designated number of channels at the same time	GPS+8 (Vehicular), GPS+10 (Airborne)	8 Vehicular	4 Vehicular	TBD	GPS+4 (Vehicular)
Scaleable networking services	Maritime/Fixed Domain	All Domains	All Domains	TBD	All Domains
Network extension/coverage	Across Organizational boundaries	Across organizational boundaries	Across organizational boundaries	TBD	Across organizational boundaries.
JTR System network interoperability	Inter-operate with Allied/Coalition and commercial networks; satisfy 100% of top-level IERs	100% of interfaces; services; policy-enforcement controls; and data correctness, availability and processing requirements in the Joint integrated architecture	100% of interfaces; services; policy-enforcement controls; and data correctness, availability and processing requirements designated as enterprise-level or critical in the Joint integrated architecture	TBD	100% of interfaces; services; policy-enforcement controls; and data correctness, availability and processing requirements designated as enterprise level or critical in the Joint integrated architecture.
Operational Availability (Ao)	0.99 Channel / 0.96 (Set)	0.99 Channel/0.96 (Set)	0.96 Channel	TBD	0.96 (Channel)
Net Ready (NR) capability	N/A	The system must fully support execution of all operational activities identified in the applicable joint and system integrated architectures and the system must satisfy the	The system must fully support execution of joint critical operational activities identified in the applicable joint and system integrated architectures and the system must satisfy the	TBD	The system must fully support execution of joint critical operational activities identified in the applicable joint and system integrated architectures and the system must satisfy the

		<p>technical requirements for Net-Centric military operations to include: 1) DISR mandated GIG IT standards and profiles identified in the TV1 2) DISR mandated GIG KIPs identified in the KIP declaration (Table 31) 3) NCOW RM Enterprise Services 4) Information assurance requirements including availability, integrity, authentication, confidentiality, and nonrepudiation, and issuance of an ATO by the DAA 5) Operationally effective information exchanges; and mission critical performance and IA attributes, data correctness, data availability, and consistent</p>	<p>technical requirements for transition to Net-Centric military operations to include: 1) DISR mandated GIG IT standards and profiles identified in the TV1 2) DISR mandated GIG KIPs identified in the KIP declaration (Table 31) 3) NCOW RM Enterprise Services 4) IA requirements including availability, integrity, authentication, confidentiality, and nonrepudiation, and issuance of an IATO by the DAA 5) Operationally effective information exchanges; and mission critical performance and IA attributes, data correctness, data availability, and consistent</p>		<p>technical requirements for transition to Net-Centric military operations to include: 1) DISR mandated GIG IT standards and profiles identified in the TV1 2) DISR mandated GIG KIPs identified in the KIP declaration (Table 31) 3) NCOW RM Enterprise Services 4) IA requirements including availability, integrity, authentication, confidentiality, and nonrepudiation, and issuance of an IATO by the DAA 5) Operationally effective information exchanges; and mission critical performance and IA attributes, data correctness, data availability, and consistent</p>
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		data processing specified in the applicable joint and system integrated architecture views	data processing specified in the applicable joint and system integrated architecture views		data processing specified in the applicable joint and system integrated architecture views.
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**Requirements Source:** Increment 1 JTRS Ground Mobile Radio (GMR) Performance Requirements for Increment 1 are based on JROCM 131-06 dated June 29, 2006 and JROCM 171-06 dated August 28, 2006. The JROCM 131-06 mandated the NR KPP and JROCM 171-06 approved the ORD version 3.2

### Acronyms And Abbreviations

ATO - Authority To Operate  
DAA - Designated Approving Authority  
DAMA - Demand Assigned Multiple Access  
DISR - DoD Information Technology Standards Registry  
DoD IEA - Department of Defense Information Enterprise Architecture  
DoDAF - Department of Defense Architecture Framework  
EDM - Engineering Development Model  
EPLRS - Enhanced Position Location Reporting System  
ESIP - Enhanced SINCGARS Improvement Program  
GIG - Global Information Grid  
GPS - Global Positioning System  
IA - Information Assurance  
IATO - Interim Authority To Operate  
IAW - In Accordance With  
IER - Information Exchange Requirement  
IT - Information Technology  
JTA - Joint Technical Architecture  
JTR - Joint Tactical Radio  
KIP - Key Interface Profile  
KPP - Key Performance Parameters  
MIL-STD - Military Standard  
NCOW-RM - Net Centric Operations and Warfare - Reference Model  
ORD - Operational Requirements Document  
SAASM - Selective Availability Anti-Spoofing Module  
SATCOM - Satellite Communications  
SINCGARS - Single Channel Ground and Airborne Radio System  
TACP - Tactical Air Control Party  
TBD - To Be Determined  
TV - Technical View  
UHF - Ultra High Frequency  
WNW - Wideband Networking Waveform

### Change Explanations

None

### Memo

On April 29, 2011, the Vice Chairman of the Joint Chiefs of Staff issued two memos, the first stating that the Joint Requirements Oversight Council (JROC) approved GMRs requested modification of the waveform Key Performance Parameter (KPP) in the Operational Requirements Document (ORD) 3.2.1 (Amendment). The first memo changed the EPLRS waveform from a Threshold to an Objective requirement across the JTRS Enterprise. The second memorandum approved changing the Multi-channel routing and retransmission of non-Internet Protocol data to Internet Protocol data from a Threshold to an Objective requirement across the JTRS Enterprise.

**Track To Budget****RDT&E**

APPN 1319	BA 05	PE 0604280N	(Navy)	
	Project 3074	JTRS/Ground Mobile Radio	(Shared)	
	Project 9D72	Army Tactical Radios for PEO Integration	(Shared)	(Sunk)
APPN 2040	BA 05	PE 0604280A	(Army)	
	Project 162	JTRS/Ground Mobile Radio	(Shared)	
APPN 2040	BA 05	PE 0604805A	(Army)	
	Project D615	Command, Project 615 Control, Comm Systems - Eng Dev/JTRS- Ground Domain Integration	(Shared)	(Sunk)
APPN 3600	BA 05	PE 0604280F	(Air Force)	
	Project 5068	JTRS/Ground Mobile Radio	(Shared)	

The JTRS Common RDT&E funding is consolidated under one Navy Program Element (PE 0604280N) in the execution and budget years (FY 2010 - FY 2012). Army Program Element (PE 0604280A) and Air Force Program Element (PE 0604280F) represent outyear funding. Army Program Element (PE 06048505A) represents prior year funding.

**Procurement**

APPN 1109	BA 04	PE 0206313M	(Navy)	
	ICN 4633	Marine Corps Communication Equipment / Radio Systems	(Shared)	
APPN 2035	BA 02		(Army)	
	ICN B90100	JTRS GMR	(Shared)	

## Cost and Funding

### Cost Summary

#### Total Acquisition Cost and Quantity

Appropriation	BY2002 \$M			BY2002 \$M	TY \$M		
	SAR Baseline Dev Est	Current APB Development Objective/Threshold		Current Estimate	SAR Baseline Dev Est	Current APB Development Objective	Current Estimate
RDT&E	845.1	1209.8	1330.9	<b>1467.2</b> <sup>1</sup>	901.1	1356.7	1666.8
Procurement	13592.1	13060.9	14367.1	2030.6	18211.8	19387.1	2707.3
Flyaway	11855.4	--	--	1433.2	15879.3	--	1906.8
Recurring	11855.4	--	--	1433.2	15879.3	--	1906.8
Non Recurring	0.0	--	--	0.0	0.0	--	0.0
Support	1736.7	--	--	597.4	2332.5	--	800.5
Other Support	1087.3	--	--	498.0	1462.7	--	668.3
Initial Spares	649.4	--	--	99.4	869.8	--	132.2
MILCON	0.0	0.0	--	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	14437.2	14270.7	N/A	3497.8	19112.9	20743.8	4374.1

<sup>1</sup> APB Breach

Quantity	SAR Baseline Dev Est	Current APB Development	Current Estimate
RDT&E	302	140	91
Procurement	108086	86512	10939
Total	108388	86652	11030

The unit of measure is a JTRS GMR radio set which is capable of running 2, 3, or 4 channels.



## Cost and Funding

### Funding Summary

#### Appropriation and Quantity Summary JUN 2011 Exception SAR (TY \$M)

Appropriation	Prior	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	To Complete	Total
RDT&E	1483.3	101.4	18.7	24.5	29.6	8.6	0.7	0.0	1666.8
Procurement	0.0	141.7	212.5	251.6	232.3	201.1	249.9	1418.2	2707.3
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JUN 2011 Total	1483.3	243.1	231.2	276.1	261.9	209.7	250.6	1418.2	4374.1
PB 2012 Total	1483.3	247.4	231.4	276.1	262.0	209.7	251.7	16540.2	19501.8
Delta	0.0	-4.3	-0.2	0.0	-0.1	0.0	-1.1	-15122.0	-15127.7

Quantity	Undistributed	Prior	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	To Complete	Total
Development	91	0	0	0	0	0	0	0	0	91
Production	0	0	468	856	1096	958	749	1096	5716	10939
JUN 2011 Total	91	0	468	856	1096	958	749	1096	5716	11030
PB 2012 Total	91	0	308	490	629	608	522	689	83619	86956
Delta	0	0	160	366	467	350	227	407	-77903	75926

#### FY2012 President's Budget / December 2010 SAR (TY\$ M)

Appropriation	Prior	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	To Complete	Total
RDT&E	1483.3	101.4	18.7	24.5	29.6	8.6	0.7	0.0	1666.8
Procurement	0.0	146.0	212.7	251.6	232.4	201.1	251.0	16540.2	17835.0
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2012 Total	1483.3	247.4	231.4	276.1	262.0	209.7	251.7	16540.2	19501.8
PB 2011 Total	1485.7	251.8	240.4	280.7	306.4	306.5	236.3	16022.9	19130.7
Delta	-2.4	-4.4	-9.0	-4.6	-44.4	-96.8	15.4	517.3	371.1

Quantity	Undistributed	Prior	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	To Complete	Total
Development	91	0	0	0	0	0	0	0	0	91
Production	0	0	308	490	629	608	522	689	83619	86865
PB 2012 Total	91	0	308	490	629	608	522	689	83619	86956
PB 2011 Total	131	0	321	531	714	887	934	693	82868	87079
Delta	-40	0	-13	-41	-85	-279	-412	-4	751	-123

## Cost and Funding

### Annual Funding By Appropriation

#### Annual Funding TY\$

#### 1319 | RDT&E | Research, Development, Test, and Evaluation, Navy

Fiscal Year	Quantity	End Item Recurring Flyaway TY \$M	Non End Item Recurring Flyaway TY \$M	Non Recurring Flyaway TY \$M	Total Flyaway TY \$M	Total Support TY \$M	Total Program TY \$M
2007	--	--	--	--	--	--	202.9
2008	--	--	--	--	--	--	262.8
2009	--	--	--	--	--	--	245.8
2010	--	--	--	--	--	--	200.3
2011	--	--	--	--	--	--	101.4
2012	--	--	--	--	--	--	18.7
2013	--	--	--	--	--	--	2.3
2014	--	--	--	--	--	--	0.8
<b>Subtotal</b>	<b>91</b>	--	--	--	--	--	<b>1035.0</b>

**Annual Funding BY\$****1319 | RDT&E | Research, Development, Test, and Evaluation, Navy**

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway BY 2002 \$M</b>	<b>Non End Item Recurring Flyaway BY 2002 \$M</b>	<b>Non Recurring Flyaway BY 2002 \$M</b>	<b>Total Flyaway BY 2002 \$M</b>	<b>Total Support BY 2002 \$M</b>	<b>Total Program BY 2002 \$M</b>
2007	--	--	--	--	--	--	178.1
2008	--	--	--	--	--	--	226.5
2009	--	--	--	--	--	--	209.3
2010	--	--	--	--	--	--	168.7
2011	--	--	--	--	--	--	84.2
2012	--	--	--	--	--	--	15.3
2013	--	--	--	--	--	--	1.9
2014	--	--	--	--	--	--	0.6
<b>Subtotal</b>	<b>91</b>	--	--	--	--	--	<b>884.6</b>

The JTRS Common RDT&E funding was consolidated under one Navy Program Element (PE-0604280N) in the execution and budget years (FY 2011 - FY 2012) to consolidate execution under one Military Department (MILDEP).

**Annual Funding TY\$**

**2040 | RDT&E | Research, Development, Test, and Evaluation, Army**

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway TY \$M</b>	<b>Non End Item Recurring Flyaway TY \$M</b>	<b>Non Recurring Flyaway TY \$M</b>	<b>Total Flyaway TY \$M</b>	<b>Total Support TY \$M</b>	<b>Total Program TY \$M</b>
2002	--	--	--	--	--	--	49.6
2003	--	--	--	--	--	--	87.8
2004	--	--	--	--	--	--	169.8
2005	--	--	--	--	--	--	97.2
2006	--	--	--	--	--	--	167.1
2007	--	--	--	--	--	--	--
2008	--	--	--	--	--	--	--
2009	--	--	--	--	--	--	--
2010	--	--	--	--	--	--	--
2011	--	--	--	--	--	--	--
2012	--	--	--	--	--	--	--
2013	--	--	--	--	--	--	19.7
2014	--	--	--	--	--	--	27.8
2015	--	--	--	--	--	--	8.5
2016	--	--	--	--	--	--	0.7
<b>Subtotal</b>	--	--	--	--	--	--	<b>628.2</b>

**Annual Funding BY\$****2040 | RDT&E | Research, Development, Test, and Evaluation, Army**

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway BY 2002 \$M</b>	<b>Non End Item Recurring Flyaway BY 2002 \$M</b>	<b>Non Recurring Flyaway BY 2002 \$M</b>	<b>Total Flyaway BY 2002 \$M</b>	<b>Total Support BY 2002 \$M</b>	<b>Total Program BY 2002 \$M</b>
2002	--	--	--	--	--	--	49.1
2003	--	--	--	--	--	--	85.3
2004	--	--	--	--	--	--	161.0
2005	--	--	--	--	--	--	89.6
2006	--	--	--	--	--	--	149.9
2007	--	--	--	--	--	--	--
2008	--	--	--	--	--	--	--
2009	--	--	--	--	--	--	--
2010	--	--	--	--	--	--	--
2011	--	--	--	--	--	--	--
2012	--	--	--	--	--	--	--
2013	--	--	--	--	--	--	15.8
2014	--	--	--	--	--	--	21.9
2015	--	--	--	--	--	--	6.6
2016	--	--	--	--	--	--	0.5
<b>Subtotal</b>	--	--	--	--	--	--	<b>579.7</b>

The Joint Tactical Radio System (JTRS) Common RDT&E funding was consolidated under one Navy Program Element (PE-0604280N) in the execution and budget years (FY 2011-FY 2012) to consolidate execution under one Military Department (MILDEP).

**Annual Funding TY\$****3600 | RDT&E | Research, Development, Test, and Evaluation, Air Force**

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway TY \$M</b>	<b>Non End Item Recurring Flyaway TY \$M</b>	<b>Non Recurring Flyaway TY \$M</b>	<b>Total Flyaway TY \$M</b>	<b>Total Support TY \$M</b>	<b>Total Program TY \$M</b>
2013	--	--	--	--	--	--	2.5
2014	--	--	--	--	--	--	1.0
2015	--	--	--	--	--	--	0.1
<b>Subtotal</b>	--	--	--	--	--	--	<b>3.6</b>

**Annual Funding BY\$**

**3600 | RDT&E | Research, Development, Test, and Evaluation, Air Force**

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway BY 2002 \$M</b>	<b>Non End Item Recurring Flyaway BY 2002 \$M</b>	<b>Non Recurring Flyaway BY 2002 \$M</b>	<b>Total Flyaway BY 2002 \$M</b>	<b>Total Support BY 2002 \$M</b>	<b>Total Program BY 2002 \$M</b>
2013	--	--	--	--	--	--	2.0
2014	--	--	--	--	--	--	0.8
2015	--	--	--	--	--	--	0.1
<b>Subtotal</b>	--	--	--	--	--	--	<b>2.9</b>

The JTRS Common RDT&E funding was consolidated under one Navy Program Element (PE-0604280N) in the execution and budget years( FY 2011 - FY 2012) to consolidate execution under one Military Department (MILDEP).

## Annual Funding TY\$

## 2035 | Procurement | Other Procurement, Army

Fiscal Year	Quantity	End Item Recurring Flyaway TY \$M	Non End Item Recurring Flyaway TY \$M	Non Recurring Flyaway TY \$M	Total Flyaway TY \$M	Total Support TY \$M	Total Program TY \$M
2011	468	101.2	--	--	101.2	40.5	141.7
2012	834	161.8	--	--	161.8	42.9	204.7
2013	1073	185.4	--	--	185.4	58.6	244.0
2014	928	156.0	--	--	156.0	65.7	221.7
2015	729	124.3	--	--	124.3	69.4	193.7
2016	1077	171.7	--	--	171.7	70.8	242.5
2017	1204	183.6	--	--	183.6	66.6	250.2
2018	1414	210.0	--	--	210.0	81.3	291.3
2019	587	96.7	--	--	96.7	72.6	169.3
2020	669	108.3	--	--	108.3	81.7	190.0
2021	1214	183.1	--	--	183.1	63.2	246.3
2022	96	30.1	--	--	30.1	48.3	78.4
<b>Subtotal</b>	<b>10293</b>	<b>1712.2</b>	<b>--</b>	<b>--</b>	<b>1712.2</b>	<b>761.6</b>	<b>2473.8</b>



**Annual Funding BY\$****2035 | Procurement | Other Procurement, Army**

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway BY 2002 \$M</b>	<b>Non End Item Recurring Flyaway BY 2002 \$M</b>	<b>Non Recurring Flyaway BY 2002 \$M</b>	<b>Total Flyaway BY 2002 \$M</b>	<b>Total Support BY 2002 \$M</b>	<b>Total Program BY 2002 \$M</b>
2011	468	83.4	--	--	83.4	33.3	116.7
2012	834	131.2	--	--	131.2	34.8	166.0
2013	1073	147.8	--	--	147.8	46.7	194.5
2014	928	122.3	--	--	122.3	51.5	173.8
2015	729	95.8	--	--	95.8	53.5	149.3
2016	1077	130.1	--	--	130.1	53.7	183.8
2017	1204	136.8	--	--	136.8	49.7	186.5
2018	1414	153.9	--	--	153.9	59.6	213.5
2019	587	69.7	--	--	69.7	52.3	122.0
2020	669	76.7	--	--	76.7	57.9	134.6
2021	1214	127.6	--	--	127.6	44.0	171.6
2022	96	20.6	--	--	20.6	33.1	53.7
<b>Subtotal</b>	<b>10293</b>	<b>1295.9</b>	<b>--</b>	<b>--</b>	<b>1295.9</b>	<b>570.1</b>	<b>1866.0</b>

Army total procurement quantities are reflective of the GMR requirement as identified in the G-3/5/7 memorandum dated April 26, 2011. The current estimate is reflective of a 2-channel requirement. The previously identified requirement for 4 and 3 channels was eliminated in the Basis of Issue Plan (BOIP) analysis.

## Annual Funding TY\$

## 1109 | Procurement | Procurement, Marine Corps

Fiscal Year	Quantity	End Item Recurring Flyaway TY \$M	Non End Item Recurring Flyaway TY \$M	Non Recurring Flyaway TY \$M	Total Flyaway TY \$M	Total Support TY \$M	Total Program TY \$M
2012	22	7.2	--	--	7.2	0.6	7.8
2013	23	7.0	--	--	7.0	0.6	7.6
2014	30	8.9	--	--	8.9	1.7	10.6
2015	20	5.9	--	--	5.9	1.5	7.4
2016	19	5.7	--	--	5.7	1.7	7.4
2017	--	--	--	--	--	--	--
2018	66	19.3	--	--	19.3	2.4	21.7
2019	66	19.3	--	--	19.3	1.4	20.7
2020	66	19.5	--	--	19.5	4.8	24.3
2021	66	19.6	--	--	19.6	5.1	24.7
2022	67	20.1	--	--	20.1	4.9	25.0
2023	67	20.4	--	--	20.4	5.0	25.4
2024	67	20.7	--	--	20.7	4.0	24.7
2025	67	21.0	--	--	21.0	5.2	26.2
<b>Subtotal</b>	<b>646</b>	<b>194.6</b>	<b>--</b>	<b>--</b>	<b>194.6</b>	<b>38.9</b>	<b>233.5</b>

**Annual Funding BY\$****1109 | Procurement | Procurement, Marine Corps**

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway BY 2002 \$M</b>	<b>Non End Item Recurring Flyaway BY 2002 \$M</b>	<b>Non Recurring Flyaway BY 2002 \$M</b>	<b>Total Flyaway BY 2002 \$M</b>	<b>Total Support BY 2002 \$M</b>	<b>Total Program BY 2002 \$M</b>
2012	22	5.8	--	--	5.8	0.5	6.3
2013	23	5.6	--	--	5.6	0.4	6.0
2014	30	7.0	--	--	7.0	1.3	8.3
2015	20	4.5	--	--	4.5	1.2	5.7
2016	19	4.3	--	--	4.3	1.3	5.6
2017	--	--	--	--	--	--	--
2018	66	14.1	--	--	14.1	1.8	15.9
2019	66	13.9	--	--	13.9	1.0	14.9
2020	66	13.8	--	--	13.8	3.4	17.2
2021	66	13.6	--	--	13.6	3.6	17.2
2022	67	13.7	--	--	13.7	3.4	17.1
2023	67	13.7	--	--	13.7	3.4	17.1
2024	67	13.7	--	--	13.7	2.6	16.3
2025	67	13.6	--	--	13.6	3.4	17.0
<b>Subtotal</b>	<b>646</b>	<b>137.3</b>	<b>--</b>	<b>--</b>	<b>137.3</b>	<b>27.3</b>	<b>164.6</b>

The USMC requirement is 646 4-channel radios.

**Low Rate Initial Production**

At the Milestone B, Low Rate Initial Production (LRIP) was not to exceed ten percent (10%) of total Production for all Services. Specific quantity amounts will be identified at the Milestone C.

**Foreign Military Sales**

None

**Nuclear Cost**

None

## Unit Cost

### Unit Cost Report

	BY2002 \$M	BY2002 \$M	
Unit Cost	Current UCR Baseline (JAN 2008 APB)	Current Estimate (JUN 2011 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	14270.7	3497.8	
Quantity	86652	11030	
Unit Cost	0.165	0.317	<b>+92.12</b> <sup>1</sup>
Average Procurement Unit Cost (APUC)			
Cost	13060.9	2030.6	
Quantity	86512	10939	
Unit Cost	0.151	0.186	<b>+23.18</b> <sup>1</sup>

	BY2002 \$M	BY2002 \$M	
Unit Cost	Original UCR Baseline (JUN 2002 APB)	Current Estimate (JUN 2011 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	14437.2	3497.8	
Quantity	108388	11030	
Unit Cost	0.133	0.317	<b>+138.35</b> <sup>1</sup>
Average Procurement Unit Cost (APUC)			
Cost	13592.1	2030.6	
Quantity	108086	10939	
Unit Cost	0.126	0.186	<b>+47.62</b> <sup>1</sup>

	TY \$M		
Unit Cost	Current UCR Baseline (JAN 2008 APB)	Current Estimate (JUN 2011 SAR)	TY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	20743.8	4374.1	
Unit Cost	0.239	0.397	+66.11
Average Procurement Unit Cost (APUC)			
Cost	19387.1	2707.3	
Unit Cost	0.224	0.247	+10.27

Unit Cost	TY \$M		
	Original UCR Baseline (JUN 2002 APB)	Current Estimate (JUN 2011 SAR)	TY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	19112.9	4374.1	
Unit Cost	0.176	0.397	+125.57
Average Procurement Unit Cost (APUC)			
Cost	18211.8	2707.3	
Unit Cost	0.168	0.247	+47.02

### <sup>1</sup> Nunn-McCurdy Breach

#### Unit Cost Breach Data

Changes from Previous SAR	\$M/Qty.	Percent
PAUC (BY \$M)	0.317	+103.21
APUC (BY \$M)	0.186	+32.86
PAUC Quantity	11030	0.00
PAUC (TY \$M)	0.397	+77.23
APUC (TY \$M)	0.247	+20.49

Initial SAR Information SEP 2002	BY2002 \$M	TY \$M
Program Acquisition Cost	14437.2	19112.9

#### Unit Cost PAUC Changes

The total Program Acquisition Cost BY 2002 dollar values have decreased by \$10,939.4M from \$14,437.2M to \$3,497.8M when compared to the Acquisition Program Baseline (APB) from 2002. The total program acquisition quantities have decreased by 97,358 from the June 2002 APB of 108,388 to 11,030.

The total Program Acquisition Cost BY 2002 dollar values have decreased by \$10,772.8M when compared to the APB from 2008 of \$14,270.7M. The total program acquisition quantities have decreased by 75,622 from the January 08 APB of 86,652.

A number of factors have contributed to the 92.12% (June 2002) and 138.35% (January 2008) PAUC increases. Changes affecting the PAUC include: (1) Reduction of Army quantities from 86,209 to 10,293. Army quantity reduction follows a Basis of Issue Plan (BOIP) analysis which reduced the total number of Wideband Networking Waveform (WNW) nodes required to run on the GMR. (2) Army's radio configuration requirements have reduced from 2 through 4 channels to a 2-channel only requirement. The previous current estimate assumed the following: 4-channel = 18,090; 3-channel = 26,739; 2-channel = 41,380. Reductions of this magnitude affect learning curve efficiencies since fewer common components are being procured. This has impacts across services (Army and USMC); (3) The Air Force no longer identifies a requirement to procure 10 4-channel radios in FY 2011.

There have been no changes against RDT&E which have impacted the PAUC from the previous current estimate.

#### Unit Cost APUC Changes

The total Procurement Cost BY 2002 dollar values have decreased by \$11,561.5M from \$13,592.1 to \$2,030.6M

when compared to the June 2002 APB. The total procurement quantities have decreased by 97,147 from the June 2002 APB of 108,086 to 10,939.

The total Procurement Cost BY 2002 dollar values have decreased \$17,356.4M when compared to the January 08 APB of \$19,387.1M. Total procurement quantities have decreased by 75,573 when compared to the January 08 APB of 86,512.

The APUC breach is a result of requirements changes. Changes affecting the Procurement portion of the APUC include: (1) Reduction of Army quantities from 86,209 to 10,293. Army quantity reduction follows a Basis of Issue Plan (BOIP) analysis which reduced the total number of Wideband Networking Waveform (WNW) nodes required to run on the GMR. (2) Army's radio configuration requirements have reduced from 2 through 4 channels to a 2-channel only requirement. The previous current estimate assumed the following: 4-channel = 18,090; 3-channel = 26,739; 2-channel = 41,380. Reductions of this magnitude affect learning curve efficiencies since fewer common components are being procured. This has impacts across services (Army and USMC); (3) The Air Force has no longer identified a requirement to procure 10 4-channel radios in FY 2011.

### **Impact of Performance or Schedule Changes**

As a result of the critical Nunn-McCurdy Breach, impacts to the GMR schedule have occurred. The assessed program schedule slip is 1 year. In order to meet the Army's Capability Set (CS) 13/14 window, the program office will need to procure radios in FY 2012. The previous current estimate planned to award a production contract in FY 2011. This slip is due to the Army Training and Doctrine Command (TRADOC) and G-3/5/7 reassessment of GMR quantities and requirements per the BOIP. Performance expectations are contained in the JTRS ORD version 3.2.1.

The critical Nunn-McCurdy process requires a review of program alternatives which can provide comparable capability at less cost. GMR is developing an acquisition strategy which focuses on fielding a lower cost GMR in a reduced size, weight and power (SWaP) package. The goal of this strategy is to improve agility of the program and better leverage vendor available capabilities to meet requirements sooner and at a lower cost. GMR has issued a Request for Information (RFI) for the GMR Low Cost Reduced SWaP (LCRS) variant, requesting Industry feedback on availability of a non-developmental radio, with the expectation that the respective vendors demonstrate capability and performance during the Army's Network Integration Evaluation (NIE) with a follow-on Development Test/Operational Test period, prior to production contract award.

### **Program Management or Control**

The JTRS GMR Program Deviation Report (PDR) notified leadership that the program would experience a critical Nunn-McCurdy breach against the PAUC and a significant breach against the APUC for both the 2002 and 2008 APBs. This assessment was based on the G3/5/7 April 26, 2011 memo indicating a total Army requirement quantity reduction from 86,209 to 10,293 units. PM GMR has been engaging with Industry to understand the size, weight, and power (SWaP) and performance capabilities available with non-developmental solutions, while adhering to the fundamental principles of JTRS; modular, scaleable, software defined.

A request for information (RFI) has been released through the JPEO JTRS which requests industry to describe the available performance and SWaP capacity. In line with the USD AT&L recent policy initiatives associated with better buying power, additional radio development is expected to be minimal with the assumption that government investment to date via PoRs or contractor managed efforts meet the user requirements. In the event that certain requirements cannot be met, the PM will work with the User community to establish "trade space" in support of Capability Sets.

### **Cost Control Actions**

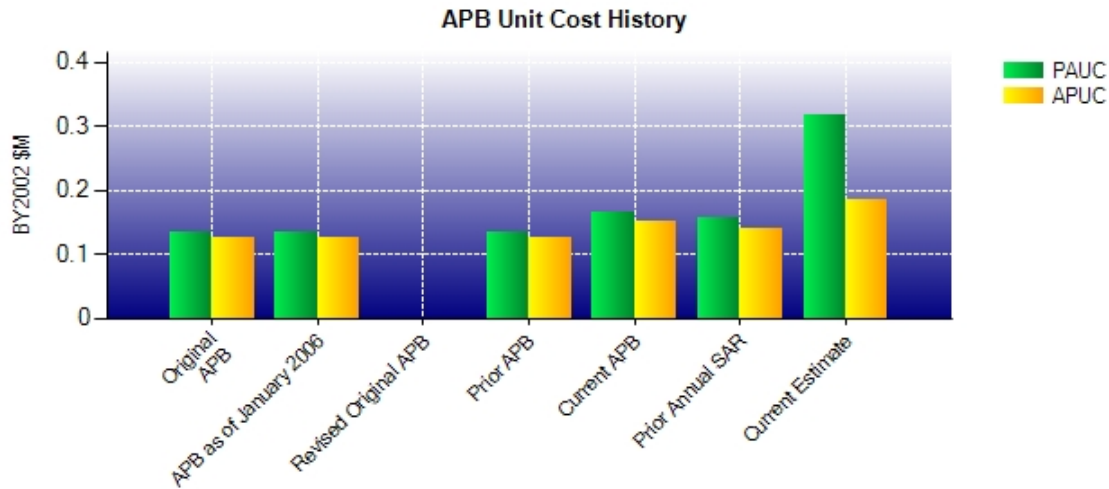
The User community had raised concerns associated with the affordability of the GMR across the previous Army Acquisition Objective (AAO) of 86,209 radios. In response to the Army quantity reduction, PM GMR is in the process of querying industry through an RFI to determine whether a less expensive, non-developmental solution, which also meets GMR performance requirements, is available.

It is the PM's intention to employ Cost as an Independent Variable (CAIV) principles in order to maintain a trade space that equally considers cost, performance, and schedule as the program transitions from RDT&E to Production and Operations and Support (O&S).

**Nunn-McCurdy Comments**

The Secretary of the Army provided notification to Congress of the JTRS GMR critical Nunn-McCurdy breach on May 13, 2011. The Nunn-McCurdy review is underway, led and coordinated by Deputy Assistant Secretary of Defense (DASD) for Command, Control, Communications, Space and Spectrum (C3S2).

### Unit Cost History



	Date	BY2002 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
<b>Original APB</b>	JUN 2002	0.133	0.126	0.176	0.168
<b>APB as of January 2006</b>	JUN 2002	0.133	0.126	0.176	0.168
<b>Revised Original APB</b>	N/A	N/A	N/A	N/A	N/A
<b>Prior APB</b>	JUN 2002	0.133	0.126	0.176	0.168
<b>Current APB</b>	JAN 2008	0.165	0.151	0.239	0.224
<b>Prior Annual SAR</b>	DEC 2010	0.156	0.140	0.224	0.205
<b>Current Estimate</b>	JUN 2011	0.317	0.186	0.397	0.247

### SAR Unit Cost History

#### Current SAR Baseline to Current Estimate (TY \$M)

Initial PAUC Dev Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.176	-0.004	0.224	0.108	-0.006	0.036	0.000	-0.137	0.221	0.397

#### Current SAR Baseline to Current Estimate (TY \$M)

Initial APUC Dev Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.168	-0.006	0.151	0.073	0.005	-0.006	0.000	-0.138	0.079	0.247



## SAR Baseline History

Item/Event	SAR Planning Estimate (PE)	SAR Development Estimate (DE)	SAR Production Estimate (PdE)	Current Estimate
Milestone A	N/A	N/A	N/A	N/A
Milestone B	N/A	JUN 2002	N/A	JUN 2002
Milestone C	N/A	AUG 2005	N/A	AUG 2012
IOC	N/A	N/A	N/A	FEB 2014
Total Cost (TY \$M)	N/A	19112.9	N/A	4374.1
Total Quantity	N/A	108388	N/A	11030
Prog. Acq. Unit Cost (PAUC)	N/A	0.176	N/A	0.397

**Cost Variance****Cost Variance Summary**

<b>Summary Then Year \$M</b>				
	<b>RDT&amp;E</b>	<b>Proc</b>	<b>MILCON</b>	<b>Total</b>
SAR Baseline (Dev Est)	901.1	18211.8	--	19112.9
Previous Changes				
Economic	+20.9	-67.9	--	-47.0
Quantity	+9.3	-2977.3	--	-2968.0
Schedule	+392.2	+2006.4	--	+2398.6
Engineering	-126.6	+139.6	--	+13.0
Estimating	+469.9	+561.5	--	+1031.4
Other	--	--	--	--
Support	--	-39.1	--	-39.1
Subtotal	+765.7	-376.8	--	+388.9
Current Changes				
Economic	--	--	--	--
Quantity	--	-11741.4	--	-11741.4
Schedule	--	-1203.9	--	-1203.9
Engineering	--	-81.4	--	-81.4
Estimating	--	-631.2	--	-631.2
Other	--	--	--	--
Support	--	-1469.8	--	-1469.8
Subtotal	--	-15127.7	--	-15127.7
Total Changes	+765.7	-15504.5	--	-14738.8
CE - Cost Variance	1666.8	2707.3	--	4374.1
CE - Cost & Funding	1666.8	2707.3	--	4374.1

<b>Summary Base Year 2002 \$M</b>				
	<b>RDT&amp;E</b>	<b>Proc</b>	<b>MILCON</b>	<b>Total</b>
SAR Baseline (Dev Est)	845.1	13592.1	--	14437.2
Previous Changes				
Economic	--	--	--	--
Quantity	+8.8	-1841.1	--	-1832.3
Schedule	+346.4	+20.7	--	+367.1
Engineering	-105.2	+33.0	--	-72.2
Estimating	+372.1	+521.6	--	+893.7
Other	--	--	--	--
Support	--	-190.9	--	-190.9
Subtotal	+622.1	-1456.7	--	-834.6
Current Changes				
Economic	--	--	--	--
Quantity	--	-7825.9	--	-7825.9
Schedule	--	-782.6	--	-782.6
Engineering	--	-54.5	--	-54.5
Estimating	--	-493.4	--	-493.4
Other	--	--	--	--
Support	--	-948.4	--	-948.4
Subtotal	--	-10104.8	--	-10104.8
Total Changes	+622.1	-11561.5	--	-10939.4
CE - Cost Variance	1467.2	2030.6	--	3497.8
CE - Cost & Funding	1467.2	2030.6	--	3497.8

Previous Estimate: December 2010

Procurement	\$M	
	Base Year	Then Year
<b>Current Change Explanations</b>		
Total Quantity variance resulting from a decrease of 75,916 GMR's from 86,209 to 10,293 (Army). (Subtotal)	-8877.6	-13313.1
Quantity variance resulting from a decrease of 75,916 GMR's from 86,209 to 10,293 (Army). (Quantity)	(-7822.7)	(-11737.6)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(-781.9)	(-1167.7)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(-54.4)	(-81.3)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-218.6)	(-326.5)
Acceleration of procurement buy profile (Army). (Schedule)	0.0	-35.9
Reduction in Contractor Systems Engineering/Program Management, Engineering Change Orders (ECOs), and System Test and Evaluation due to quantity decrease (Army). (Estimating) (QR)	-299.1	-341.0
Reduction in Training, Data, Fielding, Support Equipment, and Technical Insertion/Modifications due to quantity decrease (Army). (Support) (QR)	-167.4	-304.9
Reduction in Initial Spares due to quantity decrease (Army). (Support) (QR)	-786.2	-1172.0
Total Quantity variance resulting from a decrease of 10 4-channel radios to 0 (Air Force). (Subtotal)	-4.2	-5.0
Quantity variance resulting from a decrease of 10 4-channel radios to 0 (Air Force). (Quantity)	(-3.2)	(-3.8)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(-0.7)	(-0.8)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(-0.1)	(-0.1)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-0.2)	(-0.3)
Learning curve increases due to Army quantity reductions (Program Office estimate assumes shared learning against all of the radio components)(Air Force). (Estimating)	+1.0	+1.2
Reduction in Training, Data, Fielding, Support Equipment, and Technical Insertion/Modifications reduction due to quantity decrease (Air Force). (Support) (QR)	-0.2	-0.2
Reduction in Initial Spares due to quantity decrease (Air Force). (Support) (QR)	-0.2	-0.3
Stretch-out of procurement buy profile (Navy). (Schedule)	0.0	+0.5
Learning curve increases due to Army quantity reductions (Program Office estimate assumes shared learning against all of the radio components)(USMC). (Estimating)	+23.5	+35.4
Increase in Training, Data, Fielding, Support Equipment, and Technical Insertion/Modifications resulting from decrease in other Service quantities (USMC). (Support)	+5.2	+6.6
Increase in Initial Spares resulting from an Army quantity reductions (since fewer components are being procured in total, the per unit cost for spares is higher) (USMC). (Support)	+0.4	+1.0
Procurement Subtotal	-10104.8	-15127.7

(QR) Quantity Related

## Contracts

### General Contract Memo

The JTRS GMR Increment 1 Contract, DAAB07-02-C-C403, is over 90% complete and is no longer reported. The contract will continue through March 2012 in support of System Verification Testing, and Waveform and Operational Environment Certification which supports the current and proposed GMR Low Cost Reduced Size, Weight, and Power (SWaP) (LCRS) effort.

No contracts

## Deliveries and Expenditures

Deliveries To Date	Plan To Date	Actual To Date	Total Quantity	Percent Delivered
Development	91	91	91	100.00%
Production	0	0	10939	0.00%
Total Program Quantities Delivered	91	91	11030	0.83%

Expenditures and Appropriations (TY \$M)			
Total Acquisition Cost	4374.1	Years Appropriated	10
Expenditures To Date	1537.9	Percent Years Appropriated	41.67%
Percent Expended	35.16%	Appropriated to Date	1726.4
Total Funding Years	24	Percent Appropriated	39.47%

Expenditures to Date reported in the December 2010 SAR included forecasted expenditures through the end of the fiscal year (September 30, 2011). The Expenditures to Date value has been corrected to reflect expenditures as of June 30, 2011.

## Operating and Support Cost

### Assumptions And Ground Rules

1. Estimates are based on the August 2007 JTRS GMR cost estimate. The JTRS GMR Increment 1 CARD was approved in April 2007 by the JTRS JPEO.
2. GMR total radios are 10,939; Army requirements are 2 channels, USMC requirements are 4 channels. O&S costs include requirements for Army and the US Marine Corps.
3. O&S costs are calculated based on the recurring radio manufacturing. These costs will sustain the GMR radio after release into the field.
4. Operating and Support (O&S) Costs reflect the average annual cost for all radios.
5. System life is estimated at 20 years.
6. There is no antecedent program to this system.
7. The average annual cost per radio takes total O&S cost (BY\$) divided by service quantity (10,939) divided by system life (20 years).

Costs BY2002 \$K		
Cost Element	JTRS GMR Average Annual Cost (Per Radio)	No Antecedent
Unit-Level Manpower	--	--
Unit Operations	3.343	--
Maintenance	--	--
Sustaining Support	3.395	--
Continuing System Improvements	--	--
Indirect Support	--	--
Other	--	--
Total Unitized Cost (Base Year 2002 \$)	6.738	--

Total O&S Costs \$M	JTRS GMR	No Antecedent
Base Year	1474.0	--
Then Year	2448.2	--