Modernized Selected Acquisition Report (MSAR)

Ground/Air Task Oriented Radar (G/ATOR)

FY 2025 President's Budget

Effective: December 31, 2023

Defense Acquisition Visibility Environment

Table of Contents

(U) Common DoD Abbreviations

$B	Billions of Dollars
$K	Thousands of Dollars
$M	Millions of Dollars
ACAT	Acquisition Category
Acq O&M	Acquisition-Related Operations and Maintenance
ADM	Acquisition Decision Memorandum
APA	Additional Performance Attribute
APB	Acquisition Program Baseline
APPN	Appropriation
APUC	Average Procurement Unit Cost
BA	Budget Authority or Budget Activity
Blk	Block
BY	Base Year
CAE	Component Acquisition Executive
CAPE	Cost Assessment and Program Evaluation
CARD	Cost Analysis Requirements Description
CCE	Component Cost Estimate
CCP	Component Cost Position
CDD	Capability Development Document
CLIN	Contract Line Item Number
CPD	Capability Production Document
CY	Calendar Year or Constant Year
DAB	Defense Acquisition Board
DAE	Defense Acquisition Executive
DAES	Defense Acquisition Executive Summary
DAVE	Defense Acquisition Visibility Environment
DoD	Department of Defense
DSN	Defense Switched Network
EMD	Engineering and Manufacturing Development
EVM	Earned Value Management
FD	Full Deployment
FDD	Full-Deployment Decision
FMS	Foreign Military Sales
FOC	Full Operational Capability
FRP	Full-Rate Production
FY	Fiscal Year
FYDP	Future Years Defense Program
ICD	Initial Capabilities Document
ICE	Independent Cost Estimate
Inc	Increment
IOC	Initial Operational Capability
IT	Information Technology
JROC	Joint Requirements Oversight Council
KPP	Key Performance Parameter
KSA	Key System Attribute

LRIP	Low-Rate Initial Production
MDA	Milestone Decision Authority
MDAP	Major Defense Acquisition Program
MILCON	Military Construction
N/A	Not Applicable
O	Objective
O&M	Operations and Maintenance
O&S	Operating and Support
ORD	Operational Requirements Document
OSD	Office of the Secretary of Defense
PAUC	Program Acquisition Unit Cost
PB	President's Budget
PE	Program Element
PEO	Program Executive Officer
PM	Program Manager
POE	Program Office Estimate
R&MF	Revolving and Management Funds
RDT&E	Research, Development, Test, and Evaluation
SAR	Selected Acquisition Report
SCP	Service Cost Position
T	Threshold
TBD	To Be Determined
TY	Then Year
U.S.	United States
U.S.C	United States Code
UCR	Unit Cost Reporting
USD(A&S)	Under Secretary of Defense (Acquisition and Sustainment)

(U) Program Description

Full Name
Ground/Air Task Oriented Radar

Short Name
G/ATOR

PNO
386

Milestone Decision Authority
Component Acquisition Executive

Lead Component
Department of the Navy

Program Executive Office
PEO Land Systems

Joint Program
No

Acquisition Type
Major Defense Acquisition Program

Adaptive Acquisition Pathway
Major Capability Acquisition

Acquired Systems
GATOR

Acquisition Category
IC

Acquisition Status
Active Acquisition

Mission
The Ground/Air Task Oriented Radar (G/ATOR) is a single material solution for the mobile Multi-Role Radar System and Ground Weapons Locating Radar (GWLR) requirements. It is a three-dimensional, short/medium range multi-role radar designed to detect unmanned aerial systems, cruise missiles, air breathing targets, rockets, artillery, and mortars. G/ATOR satisfies the warfighter's expeditionary needs across the Marine Air Ground Task Force spectrum replacing five legacy radar systems with a single solution. The Air Defense/ Surveillance Radar G/ATOR Block 1 provides capabilities in the Short Range Air Defense and Air Surveillance mission areas; GWLR G/ATOR Block 2 will address Counter-fire Targeting Missions; and Expeditionary Airport Surveillance Radar G/ATOR Block 4 will address Air Traffic Control missions. G/ATOR Block 4 is not included in the Acquisition Program Baseline. Resourcing may be included in future budget builds. G/ATOR provides real-time radar measurement data to the Common Aviation Command and Control System, Composite Tracking Network, and Advanced Field Artillery Tactical Data System.

(U) Responsible Office

Program Executive Officer
PEO Land Systems
Mr. Stephen J. Bowdren
stephen.bowdren@usmc.mil (primary)
(703) 432-4960 (commercial)

Program Manager
Ground/Air Task Oriented Radar PMO
Ms. Barbara R. Gault
barbara.r.gault1@usmc.mil (primary)
(703) 432-3283 (commercial)

(U) Executive Summary

Program Highlights Since Last Report

As of April 2024, the program, which is in FRP, has fielded 28 units to Marine Expeditionary Forces and supporting establishment locations. Follow on production continues with the award of FRP Lot 5 in September 2023. G/ATOR Expeditionary Airport Surveillance Radar (EASR) Mode software began development in December 2023.
There are no significant software-related issues with this program at this time.
Defense Cost and Resource Center (DCARC) Cost and Software Data Reporting (CSDR) Compliance Rating: Red Critical; however, as per the CDRL, the contractor is reporting via Cost Assessment Data Enterprise (CADE) website and is Green. A contract modification is forthcoming to address reporting in DCARC.

(U) History of Significant Developments Since Program Inception

Date	Description
December 2023	G/ATOR FRP Lot 5 was awarded on 28 Sep 2023 to procure 9 G/ATOR systems. As of Dec 2023, thirteen GB1 systems have been fielded: MACS-1, MACS-2, MACS-4, MACS-24, 3d LAAB, MCCES, MCTSSA and MCSC; fourteen GB2 systems have been fielded: 10th, 11th, 12th and 14th Marine Regiments and Ft Sill MARDET Schoolhouse. *An FY 2024 APB update will occur pending Gate 7 results and will represent the procurement of additional systems.
December 2022	The G/ATOR FRP contract was awarded on 07 Jun 2019. The program is currently in Full Rate Production. As of December 22, 2021 all four lots of the FRP procurement contract have been exercised. FY22 Fielding - FRP Lot 1 units to MACS-24, MACS-2, 3d LAAB, MCTSSA, USMC Det Ft Sill.

(U) Schedule

(U) Schedule Events

Events		Production APB (Milestone) 4/14/2014 Objective	APB Change 1 (Current) 6/4/2019 Objective	Threshold	Current Estimate 12/31/2023	Actual
G/ATOR						
Milestone B (1)	MS B	Aug 2005	Aug 2005	Aug 2005	-	26 Aug 2005
Milestone C (2)	MS C	Mar 2014	Mar 2014	Mar 2014	-	10 Mar 2014
Initial Operational Test & Evaluation	IOT&E	Oct 2018	Dec 2018	Dec 2018	-	21 Dec 2018
FRP Decision	FRP Decision	Mar 2019	Jun 2019	Jun 2019	-	12 Jun 2019
FOC(Start)	FOC	-	-	-	Jun 2026	-
FOC (Complete)	FOC	-	Jan 2025	Jul 2025	Aug 2027	-
AD/SR (GB1)						
Operational Assessment (1)	IOT&E	Aug 2016	Oct 2017	Oct 2017	-	21 Oct 2017
IOC (1)	IOC	Feb 2017	Feb 2018	Feb 2018	-	21 Feb 2018
GWLR (GB2)						
IOC (3)	IOC	Feb 2018	Mar 2019	Mar 2019	-	28 Mar 2019
Operational Assessment (2)	IOT&E	Oct 2017	May 2018	May 2018	-	25 May 2018

Notes

There are no known significant Schedule or Technical risks with this program at this time. The system is currently undergoing Full Rate Production.
An FY24 APB update is necessary due to FY23 Congressionally added systems. The PM is awaiting the results of O&S cost estimates being prepared for a Gate 7 review in July 2024.

Schedule Baseline Deviation Explanation

None

(U) Current Significant Schedule Risks and Risks Identified at Milestones/Decisions

None

(U) Performance

(U) Performance Attributes

GWLR (GB2)			
Operational availability (2)			**KPP**
Current Estimate **12/31/2023**		Operational availability The GWLR shall have an Ao of 0.95 (Objective)	
Demonstrated Performance -		MET .96 at DT1E2 and .93 at IOT&E	
APB Change 1 (Current) **6/4/2019**	**Objective**	Operational availability The GWLR shall have an Ao of 0.95 (Objective)	
	Threshold	Operational availability The GWLR shall have an Ao of 0.90 (Threshold)	
Production APB (Milestone) **4/14/2014**	**Objective**	-	
Hostile Weapon Location (range in (m))			**[attribute type not provided]**
Current Estimate **12/31/2023**		The CEP50 of weapon location shall be less than the greater of 30m or 0.252% of range for at least 80% (objective) of the cases in the shot array in the defined nominal environment.	
Demonstrated Performance -		MET 96%	
APB Change 1 (Current) **6/4/2019**	**Objective**	The CEP50 of weapon location shall be less than the greater of 30m or 0.252% of range for at least 90% (threshold) of the cases in the shot array in the defined nominal environment.	
	Threshold	The CEP50 of weapon location shall be less than the greater of 30m or 0.252% of range for at least 80% (objective) of the cases in the shot array in the defined nominal environment.	
Production APB (Milestone) **4/14/2014**	**Objective**	The CEP50 of weapon location shall be less than the greater of 30m or 0.252% of range for at least 90% (threshold) of the cases in the shot array in the defined nominal environment.	
Materiel Availability			**KPP**
Current Estimate **12/31/2023**		Materiel Availability The GWLR shall have a Materiel Availability of 0.90 (Objective)	
Demonstrated Performance -		Not Yet Evaluated until FOC with fully integrated supporting organizations.	
APB Change 1 (Current) **6/4/2019**	**Objective**	Materiel Availability The GWLR shall have a Materiel Availability of 0.90 (Objective)	
	Threshold	Materiel Availability The GWLR shall have a Materiel Availability of 0.85 (Threshold)	

Production APB (Milestone) 4/14/2014	Objective	-
Probability of location (acquisition)		[attribute type not provided]
Current Estimate 12/31/2023		Assuming no targets in track, 0.90 for at least 90% of the cases in the shot array with +/-800 mils coverage (1600 mils total) with the radar in either normal or extended range operating mode in the defined nominal environment.
Demonstrated Performance -		MET 93%
APB Change 1 (Current) 6/4/2019	Objective	Assuming no targets in track, 0.97 for at least 90% of the cases in the shot array with +/-800 mils coverage (1600 mils total) with the radar in either normal or extended range operating mode in the defined nominal environment.
	Threshold	Assuming no targets in track, 0.90 for at least 90% of the cases in the shot array with +/-800 mils coverage (1600 mils total) with the radar in either normal or extended range operating mode in the defined nominal environment.
Production APB (Milestone) 4/14/2014	Objective	Assuming no targets in track, 0.97 for at least 90% of the cases in the shot array with +/-800 mils coverage (1600 mils total) with the radar in either normal or extended range operating mode in the defined nominal environment.
AD/SR (GB1)		
Tier 1: Net-Centric Tier 2: Information Transport, Information Assurance | Exchange information		
Information Element: Air Track Data Measure: Dissemination of target biographic and physical data Measure: Receipt of HVT data Measure: Latency of data Measure: Strenght of encryption Conditions: Tactical/Geopolitical		KPP
Current Estimate 12/31/2023		Non Permissive
Demonstrated Performance -		MET per JITC?s joint interoperability certification of the USMC AN/TPS-80/GATOR Block 1 software version 1.7.0.1.0
APB Change 1 (Current) 6/4/2019	Objective	Non Permissive
	Threshold	Data: Date and time, Azimuth, range, elevation, time, size, speed and IFF NRT Data Rate: -524 Kbps TFOCA-11 Not Encrypted EPLRS: Communic-ation / Transmission Integrated Circuit (CTIC), CTIC DS-101 Hybrid (CDH) Permissive
Production APB (Milestone) 4/14/2014	Objective	Non Permissive
Tier 1: Net-Centric Tier 2: Information Transport, Information Assurance | Enter and be managed in the		

network		
Network: Direct Fiber to TAOM, CAC2S or CTN Measure: Time to connect to an operational network from power up Conditions: Network connectivity Network: EPLRS to TAOM or CAC2S		KPP
Current Estimate 12/31/2023		30 min Reconfigure from transport to full operation 30 min.
Demonstrated Performance -		MET 27.5 mins
APB Change 1 (Current) 6/4/2019	Objective	30 min Reconfigure from transport to full operation 30 min
	Threshold	60 min Reconfigure from transport to full operation 60 min
Production APB (Milestone) 4/14/2014	Objective	30 min Reconfigure from transport to full operation 30 min
Tier 1: Logistics Tier 2: 0perational Contract Support | Sustainment		
Material Availability		KPP
Current Estimate 12/31/2023		Materiel Availability The AD/SR shall have a Materiel Availability of 0.90 (Objective)
Demonstrated Performance -		Not Yet Evaluated until FOC with fully integrated supporting organizations.
APB Change 1 (Current) 6/4/2019	Objective	Materiel Availability The AD/SR shall have a Materiel Availability of 0.90 (Objective)
	Threshold	Materiel Availability The AD/SR shall have a Materiel Availability of 0.85 (Threshold)
Production APB (Milestone) 4/14/2014	Objective	Materiel Availability The AD/SR shall have a Materiel Availability of 0.90 (Objective)
Operational availability (1)		KPP
Current Estimate 12/31/2023		Operational availability The GWLR shall have an Ao of 0.95 (Objective)
Demonstrated Performance -		MET .96 at DT1E2 and .93 at IOT&E
APB Change 1 (Current) 6/4/2019	Objective	Operational availability The AD/SR shall have an Ao of 0.95 (Objective)
	Threshold	Operational availability The AD/SR shall have an Ao of 0.90 (Threshold)
Production APB (Milestone) 4/14/2014	Objective	Operational availability The AD/SR shall have an Ao of 0.95 (Objective)
Tier 1: Battlespace Awareness Tier 2: Intelligence, Surveillance & Reconnaissance, Environment		
Combat Identification (Block 1) (Applicable to Block 4) (2)		KPP
Current Estimate		Integrate IFF Mode 5 (Level 3) and Mode S (Level

12/31/2023		3)
Demonstrated Performance 9/20/2022		G/ATOR Mode 5 IFF DoD AIMS Platform Certification
APB Change 1 (Current) 6/4/2019	Objective	Integrate IFF Mode 5 (Level 3) and Mode S (Level 3)
	Threshold	Growth - Block 4. AD/SR shall integrate MK XIIA IFF Mode 5 (Level 2) capabilities and Mode S (level 2)
Production APB (Milestone) 4/14/2014	Objective	Integrate IFF Mode 5 (Level 3) and Mode S (Level 3)
Combat Identification (Block 1) (Applicable to Block 4) (1)		KPP
Current Estimate 12/31/2023		AD/SR's IFF system shall be compatible with MK XII IFF systems (Modes 1, 2, 3/A, C, 4).
Demonstrated Performance -		MET per AIMS platform certification
APB Change 1 (Current) 6/4/2019	Objective	(Threshold= Objective) AD/SR's IFF system shall be compatible with MK XII IFF systems (Modes 1, 2, 3/A, C, 4).
	Threshold	AD/SR's IFF system shall be compatible with MK XII IFF systems (Modes 1, 2, 3/A, C, 4).
Production APB (Milestone) 4/14/2014	Objective	(Threshold= Objective) AD/SR's IFF system shall be compatible with MK XII IFF systems (Modes 1, 2, 3/A, C, 4).

(U) Requirement Source:

Sponsor(s): None

1. Document Type Not Provided
   Notes: CPD (GB1) dated December 3, 2012 and CPD (GB2) dated April 4, 2019

Notes

Both CPDs approved by the Marine Requirements Oversight Council (MROC) and validated by the Joint Requirements Oversight Council (JROC).

Performance Deviation Explanation

None

(U) Acquisition Budget Estimate

(U) Total Acquisition Estimates and Quantities

Category ($M) Base Year: 2012	Production APB (Milestone) 4/14/2014 CY$ obs Objective	APB Change 1 (Current) 6/4/2019 CY$ obs Objective / Threshold		Current Estimate PB 2025 CY$ obs / TY$ obs	
RDT&E	986.5	1,042.0	1,146.2	1,265.3*	1,394.3
Procurement	1,625.3	1,711.5	1,882.7	2,132.1*	2,654.8
MILCON	3.5	0.0	0.0	0.0	0.0
O&M	0.0	0.0	0.0	0.0	0.0
R&MF	-	-	-	0.0	0.0
Total Acquisition	2,615.3	2,753.5	-	3,397.4	4,049.1
Program Acquisition Unit Cost	58.118	61.189	67.308	62.915	74.983
Average Procurement Unit Cost	36.118	38.033	41.836	39.483	49.163
Program End-Item Quantity					
Development	0	0		-	
Procurement	45	45		54	
O&M-Acquired	-	-		-	

* Baseline Deviation

Budget Notes

Current APB Cost Estimate Reference Source Documents: Full Rate Production Decision Program Office Estimate for Ground/Air Task Oriented Radar (G/ATOR); Naval Center for Cost Analysis Independent Cost Estimate (ICE) for AN/TPS-80 of 29 April 2019. The Total Acquisition Costs include fact-of-life changes through PB-25.

Quantity Notes

The Current APB Change 1 PAUC and APUC are based on 45 units. The Current Estimate (PB2025) is based on 54 systems. An FY24 APB update is pending and will represent the procurement of additional systems.

Cost Baseline Deviation Explanation

Parameter	Explanation
Acquisition Cost (RDT&E)	Base Year Threshold in the current APB is based on a procurement of 45 systems; an updated APB is planned to account for additional systems.
Acquisition Cost (Procurement)	Base Year Threshold in the current APB is based on a procurement of 45 systems; an updated APB is planned to account for additional systems.

(U) Risk and Sensitivity Analysis

Current Procurement Estimate Risks (12/31/2023)
None
Current Baseline Risks (6/4/2019)
The current baseline estimate reflects the Service Cost Position (SCP) that the Naval Center for Cost Analysis (NCCA) developed in support of the Full Rate Production (FRP). The SCP was also used as the basis for the June 2019 Acquisition Program Baseline (APB). The estimate is based on a production quantity of 45 and supports an FOC of FY 2025.
Original Baseline Risks (5/22/2012)
The original baseline estimate was developed after G/ATOR was officially designated as an ACAT IC program by ASN (RDA). The estimate was based on a production quantity of 57 (of which only 45 were funded) and supported an FY 2024 FOC.

(U) Unit Costs

(U) Current Estimate Compared with Current Baseline

Category (CY$M) Base Year: 2012	Current Baseline 06/04/2019	Current Estimate PB 2025	% Change
Program Acquisition Unit Cost			
Acquisition Cost	2,753.5	3,397.4	
Program Quantity	45	54	
PAUC	61.189	62.915	2.82%
Average Procurement Unit Cost			
Procurement Cost	1,711.5	2,132.1	
Procurement Quantity	45	54	
APUC	38.033	39.483	3.81%

(U) Current Estimate Compared with Original Baseline

Category (CY$M) Base Year: 2012	Original Baseline 05/22/2012	Current Estimate PB 2025	% Change
Program Acquisition Unit Cost			
Acquisition Cost	2,987.3	3,397.4	
Program Quantity	57	54	
PAUC	52.409	62.915	20.05%
Average Procurement Unit Cost			
Procurement Cost	2,103.1	2,132.1	
Procurement Quantity	57	54	
APUC	36.896	39.483	7.01%

Notes

The Current APB Change 1 PAUC and APUC are based on 45 units. The Current Estimate (PB2025) is based on 54 systems; PB24 funding for 9 of 12 systems to meet AAO.
An FY24 APB update will occur pending Gate 7 results and will represent the procurement of additional systems.

(U) Life-Cycle Costs

(U) Operating and Support and Disposal Cost Estimates Compared with Baseline

Category ($M) Base Year: 2012	Production APB (Milestone) 4/14/2014 CY$ obs Objective	APB Change 1 (Current) 6/4/2019 CY$ obs Objective / Threshold		Current Estimate CY$ obs / TY$ obs	
Total O&S	2,522.6	2,124.8	2,337.3	2,346.9*	3,071.4
Total Disposal	-	-	-	-	-

* Baseline Deviation

(U) Current Cost Estimate Sources

Operating and Support Cost
Type: Life-Cycle Cost Estimate
Approved by: Program Manager , December 31, 2023

Disposal/Demilitarization Cost
Type: No estimate. To Be Determined

Operating and Support Baseline Deviation Explanation

The 2019 Cost Estimate was based on preliminary actual data obtained from systems that were fielded and the procurement of an additional 9 systems.

Cost Notes

The Program Lifecycle Cost Estimate (PLCCE) is dated December 2023 aligned to PB25 with fact-of-life changes.

(U) Operating and Support Variance with Prior Estimate

(CY$M) Base Year: 2012	Estimate	
Prior Estimate (12/30/2022)	2,004.3	
Current Estimate	2,346.9	
Category	**Variance**	**Explanation**
Unit-Level Manpower	36.8	Updated actuals in the Life Cycle Cost Estimate model.
Unit Operations	-0.8	Updated actuals in the Life Cycle Cost Estimate model.
Maintenance	-155.9	Updated actuals in the Life Cycle Cost Estimate model.
Sustaining Support	31.8	Updated actuals in the Life Cycle Cost Estimate model.

(CY$M) Base Year: 2012	Estimate	
Continuing System Improvements	51.0	Updated actuals in the Life Cycle Cost Estimate model.
Other	41.6	Updated actuals in the Life Cycle Cost Estimate model.
Not Categorized	338.0	

(U) Operating and Support Cost Element Structure Estimates by Acquired System

(CY$M) Base Year: 2012							
System	Unit-Level Manpower	Unit Operations	Maintenance	Sustaining Support	Continuing System Improvements	Other	Total
GATOR	256.0	9.7	1,216.1	400.7	348.8	115.6	2,346.9
Program	**256.0**	**9.7**	**1,216.1**	**400.7**	**348.8**	**115.6**	**2,346.9**

(U) Annual Operating and Support Costs per Unit Compared with Antecedent System

No Data

(U) Operating and Support Cost Estimate Assumptions

No Data

Additional O&S Estimate Assumptions

None

Antecedent Estimate Assumptions

The AN/TPN-31(V5), AN/TPS-63, AN/MPQ-62, AN/TPQ-46A, and AN/UPS-3 radars are the antecedent systems. There is no data in the Naval Visibility and Management of Operating and Support Costs database for the antecedent systems.

O&S Annual Cost Calculation Memo

None.

(U) Technologies and Systems Engineering

(U) Current Significant Technical Risks and Risks Identified at Milestones/Decisions

Event	Date	Description
Current	12/31/2023	5G Spectrum Relocation - If the Federal Communications Commission (FCC) sells off a large portion of S-Band spectrum, then there will be degradation in Probability of Firm Track at lower elevations and reduction in track range for most targets, resulting in degraded performance and capability in Air Surveillance and Counter-fire operations. Amount of degradation dependent on EM environment and percent of spectrum sold off.
Current	12/18/2022	Inspect and Repair Only As Necessary Depot Core Capability Will Not Be Established IAW Title 10 USC 2464: Core Log Capabilities: If Tobyhanna Army Depot is not properly tasked and resourced, then G/ATOR Depot Core Capability-IROAN will not be established by 4QFY23 and will not meet statutory requirement of Title 10 USC 2464: Core Logistics Capabilities. Funding decrease from FY 2023 to FY 2024 as G/ATOR defers the completion of IROAN Depot repairs at Tobyhanna Army Depot to FY24.

(U) Performing Activities and Contracts

(U) External Government Activities

None

(U) Contracts and Efforts

Contract Title	Contract Number / Effort	Contractor	Phase
Full Rate Production (FRP)	M6785-19-C-0043 / N/A	Northrop Grumman Systems Corporation	Production

(U) Contract and Effort Identification, Price, Quantity and Performance			
Contract Number:	M6785-19-C-0043	**Order Number:**	N/A
Contract Title:	Full Rate Production (FRP)	**Strategy:**	FAR 15: Negotiated Contracts
CAGE:	2S209 - Northrop Grumman Systems Corporation	**Contracting Office:**	Marine Corps System Command
City, State/Province:	Linthicum Heights, MD		
Effort Number:	N/A	**Supported Phase:**	Production
Type:	Firm-Fixed-Price	**Award Date:**	June 7, 2019
Latest Modification Date:	October 31, 2023	**Definitization Date:**	December 22, 2021
Latest Modification No.:	P00045	**Work Start Date:**	June 7, 2019
Technical Data Rights:	Limited Rights		
Notes:	None		

Initial Price (TY$M) Target / Ceiling		Current Price (TY$M) Target / Ceiling		Estimate at Completion (TY$M) Contractor / PM		Initial Quantity	Current Quantity	Delivered Quantity
963.2	958.0	963.2	998.0	-	155.9	45	54	27

(U) Production

(U) Low-Rate Initial Production

	Original LRIP Determination	Current LRIP Determination
Total LRIP Quantity	15	15
Date	3/10/2014	3/10/2014
Reference	Milestone C ADM	Milestone C ADM
LRIP Period	FY 2014 - 2014	FY 2014 - 2014
Total Procurement Quantity	15	15
LRIP Percentage of Total	100.0%	100.0%

Rationale if LRIP Quantity Exceeds 10% of Total Procurement Quantity (Current Determination)

Per Milestone C Decision Authority, a revised Justification and Approval (J&A) increased LRIP quantities.

LRIP Notes

None

(U) Deliveries and Expenditures

(U) Acquisition Funding

	Total Estimate	Actual to Date	Actual, Percent Complete
Years Appropriated	47	21	44.7%
Appropriations (TY, $M)	4,049.1	-	-
Expenditures (TY, $M)	4,049.1	-	-

(U) End Items Delivered

	Total Required	Planned to Date	Actual to Date	Actual, Percent Complete
Procurement	54			
GATOR		27	27	
Total	**54**	**27**	**27**	**50.0%**

Notes

None

(U) International Program Aspects

General Memo

The Program Executive Officer Land Systems (PEO LS) in coordination with Program Manager Expeditionary Radars (PM ExR) and the Marine Corps System Command International Program Office are responsible for conducting analysis and consideration of foreign sales / exportability of the AN/TPS-80, GROUND/AIR TASK ORIENTED RADAR (G/ATOR) program. PEO LS and PM ExR approved the G/ATOR International Engagement Strategy (IES) in January 2024 to enable the export of Expeditionary Radar capabilities to key partners and other coalition countries via a combination of Foreign Military Sales (FMS) and/or Direct Commercial Sales (DCS) processes in support of U.S. Marine Corps warfighting needs.
Currently no international agreements or Technology Security and Foreign Disclosure (TSFD) approved configurations exist for the G/ATOR program. This IES identifies activities to be executed to move the program forward to establish FMS and/or DCS for the G/ATOR.
The G/ATOR system incorporates several technological advancements that provide the United States and its allies a performance advantage for multi-role radars on the battlefield. The determination of the Critical Program Information (CPI) and how that is to be protected is central to protecting that performance advantage over potential adversaries. A robust anti-tamper plan is central to protecting the CPI. Furthermore, all potential FMS sales will be shaped by the determinations of the TTSARB. The initial TTSARB memo was approved Jul 2017, with periodic updates leading to the current memo dated Jan 2020. Periodic TTSARB reviews and determinations will be undertaken as required to account for recommended changes.

Exportability and Business Issues

The current Navy International Programs Office (NIPO) - approved TTSARB memo was signed 17 Jan 2020, and accounts for the addition of Longer Range (LR) capabilities, known as the Extended Range Mode (ERM) under G/ATOR GB1 variant. The Tri-Service Committee (TSC) Memo, supporting LR, was approved 24 Apr 2020. Due to current Critical Program Information (CPI) designations and other security requirements, the program office is restricted to exporting the G/ATOR System via Foreign Military Sales (FMS) only, and Direct Commercial Sales (DCS) is not authorized.

Is design for international exportability planned?	Yes	**Industry/Partner Exportability Cost-Sharing?**	No

Program Protection: Technology Security and Foreign Disclosure Issues

All G/ATOR international sales are approved by the TTSARB for Foreign Military Sales (FMS) only. Defense Security Cooperation Agency (DSCA) 16-51 lays out FMS-only items, as a general policy. G/ATOR TTSARB 20_5, Encl 2 "Terms and Conditions," specifically states the REG is FMS-only; PEG and CEG are FMS or DCS.
G/ATOR has a Program Protection Plan in place with a classified draft Anti-Tamper Annex. A CPI reassessment was conducted in 1QFY24 to inform whether the current configuration of the G/ATOR system can be offered for FMS sales in advance of planned hardware upgrades. The CPI re-assessment, commenced with the CPI as assessed in the Program Protection Plan signed in 2019

in support of Full Rate production. The results of this CPI assessment are available on SIPR, and the current CPI list includes both software and hardware. TTSARB guidance and memos are available on SIPR and include guidance on how the G/ATOR program will handle export of CPI technology. Following the CPI re-assessment, the PMO will re-engage with the Tri-Service Committee to request a renewed evaluation of the exportability of the USMC variant hardware. It is the program office belief that hardware designated as CPI may be exportable based on age and methodology as compared to advancements in commercially available technology.

(U) Agreements

No International Agreements have been defined for G/ATOR

Modernized
Selected Acquisition Report
Supplement

Ground/Air Task Oriented Radar
(G/ATOR)

FY 2025 President's Budget
As of: December 31, 2023

MSAR Supplement Sections

Program Description

Program Use of the Adaptive Acquisition Framework

Technologies and Systems Engineering

Funding Sources (Acquisition)

Funding Sources (Operating and Support)

Acquisition Estimate and Quantity Summary

Annual Acquisition Estimates by Appropriation Account

Acquired System Annual End-Item Quantities by Appropriation Account

Nuclear Costs

Operational Fielding Plan

O&S Independent Cost Estimate

Annual Operating and Support Estimates by Cost Element

Program Description

Full Name
Ground/Air Task Oriented Radar

Short Name
G/ATOR

PNO
386

Lead Component
Navy

AAF Pathway
MCA

Acquisition Type
MDAP

Acquired Systems
GATOR

Program Use of the Adaptive Acquisition Framework

This acquisition is accomplished by a single program in the Major Capability Acquisition Pathway.

Technologies and Systems Engineering

Ground/Air Task Oriented Radar

Major Software Efforts

Title	Status	Fielding Date	Description
Long Range Radar (LRR)/ Extended Range Mode (ERM)	Deployment	Mar 2024	Increase radar capability for sensing and detection at extended ranges. Program impacts will be the delay to bring this capability to the FMF fully causing a lack of fleet wide baseline configuration in the fleeted systems.
Tactical Target Generator (TTG)	Development	Jun 2025	Advanced survivability effort primarily focused on ADSR G/ATOR systems. Program impacts consist with lack of available hardware at the unit and depot level for the G/ATOR TTG during initial fielding. Lack of funding will exacerbate the impact for long lead times and potentially delay the fielding of this capability to fleet.
DREX	Design	Jun 2028	Reducing LRUs within the Receiver Exciter functionality of the radar; enhancing multi-function capability, resolution, reliability, and additional degrees of freedom to reduce clutter and interference. This development addresses an increase in capability and an update to the baseline of many components internal to the processing within the radar. Program impacts would cause a delay with this capability on the current schedule.
Radar Signal Processor (RSP) Refresh	Development	Apr 2028	Redesign to increase efficiency in radar signal processing and allow greater breadth and depth in processing for the G/ATOR system. This development addresses an increase in capability and an update to the baseline of many components internal to the processing within the radar. Program impacts would cause this capability to be delayed and not delivered with the schedule. Future radar developments are dependent on this effort.

Major Engineering Changes

Title	Original Need Date	Fielding Date	Description, Rationale and Program Impacts
Long Range Radar (LRR)/ Extended Range Mode (ERM)	Mar 2024	Mar 2024	Increase radar capability for sensing and detection at extended ranges. Program impacts will be the delay to bring this capability to the FMF fully causing a lack of fleet wide baseline configuration in the fleeted systems.
Tactical Target Generator (TTG)	Jun 2025	Jun 2025	Advanced survivability effort primarily focused on ADSR G/ATOR systems. Program impacts consist with lack of available hardware at the unit and depot level for the G/ATOR TTG during initial fielding. Lack of funding will exacerbate the impact for long lead times and potentially delay the fielding of this capability to fleet.
DREX	Jun 2028	Jun 2028	Reducing LRUs within the Receiver Exciter functionality of the radar; enhancing multi-function capability, resolution, reliability, and additional degrees of freedom to reduce clutter and interference. This development addresses an increase in capability and an update to the baseline of many components internal to the processing within the radar. Program impacts would cause a delay with this capability on the current schedule.

Radar Signal Processor (RSP) Refresh	Apr 2028	Apr 2028	Redesign to increase efficiency in radar signal processing and allow greater breadth and depth in processing for the G/ATOR system. This development addresses an increase in capability and an update to the baseline of many components internal to the processing within the radar. Program impacts would cause this capability to be delayed and not delivered with the schedule. Future radar developments are dependent on this effort.

Funding Sources (Acquisition)

Acquisition Funding Notes

None

Ground/Air Task Oriented Radar

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
RDT&E	1319N	07	0204460M - Ground/Air Task Oriented Radar (G/ATOR)	0204460M	9C89 - Marine Ground-Air Radar		
Note:	Radar Systems						
Procurement	1109N	01	1010 - 5.56 MM, ALL TYPES	0888888N	-		

Funding Sources (Operating and Support)

Note: Budget lines fund activites executed by the Program Office or Sustainment Office.

Operating and Support Funding Notes

None

Ground/Air Task Oriented Radar

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
RDT&E	1319N	07	0204460M - Ground/Air Task Oriented Radar (G/ATOR)	0204460M	9C89 - Marine Ground-Air Radar		
RDT&E	1319N	07	0206313M - Marine Corps Communications Systems	0206313M	9C89 - Marine Ground-Air Radar	x	x
RDT&E	1319N	04	0206313M - Marine Corps Communications Systems	0206313M	999999 -	x	x
RDT&E	1319N	07	0204460M - Ground/Air Task Oriented Radar (G/ATOR)	0204460M	9999 - Congressional Add		
Procurement	1109N	04	4650 - Radar Systems	0206313M	-	x	x
Procurement	1109N	04	4650 - Radar Systems	0204460M	-	x	x
Procurement	1109N	07	7000 - Spares and Repair Parts	0204460M	-	x	
Procurement	1109N	04	4655 - Ground/Air Task Oriented Radar (G/ATOR)	0204460M	-		
Procurement	1109N	04	4655 - Ground/Air Task Oriented Radar (G/ATOR)	0506313M	-		x
O&M	1106N	01	1A2A - Field Logistics	0206313M	-	x	

Acquisition Estimate and Quantity Summary

Ground/Air Task Oriented Radar

Acquisiton Estimates

Category	PB 2025	TY ($M)	Current Base Year CY2012 ($M)	Original Base Year CY2012 ($M)	Report Fiscal Year CY2024 ($M)
RDT&E		1,394.3	1,265.3	1,265.3	1,692.5
Procurement		2,654.8	2,132.1	2,132.1	2,852.0
MILCON		-	-	-	-
O&M		-	-	-	-
Total Acquisition		4,049.1	3,397.5	3,397.5	4,544.5
PAUC		74.983	62.916	62.916	84.157
APUC		49.163	39.484	39.484	52.814

Acquisiton End-Item Quantities

System	PB 2025	Development	Procurement
GATOR		-	54
Total		**-**	**54**

Unit Description

One AN/TPS-80 G/ATOR consists of three hardware equipment groups and software: Radar Equipment Group (REG), the Power Equipment Group (PEG) and the Communications Equipment Group (CEG).

Current and Future Years Defense Program Summary, TY($M)

Appropriation	Prior	2024	2025	2026	2027	2028	2029	To Complete	Total
RDT&E	1,137.6	89.7	47.3	34.2	22.5	19.3	19.7	23.9	1,394.3
Procurement	2,235.9	75.1	67.5	63.8	63.9	56.0	45.6	47.2	2,654.8
MILCON	-	-	-	-	-	-	-	-	-
O&M	-	-	-	-	-	-	-	-	-
PB 2025 Total	**3,373.5**	**164.8**	**114.8**	**98.0**	**86.3**	**75.3**	**65.3**	**71.1**	**4,049.1**

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

Ground/Air Task Oriented Radar

Source for TY$-CY$ Conversion: ASN FMB-6 Inflation Rates and Outlay Factors for DA, DoN and DW accounts: 17 Jan 2024

1319N - Research, Development, Test & Eval, Navy					
fiscal year		Other/ Unallocated	Total TY($M)	Weighted Rate	Total CY2012 ($M)
Total		**1,394.3**	**1,394.3**	**-**	**1,265.3**
2004		6.727	6.7	0.861652	7.8
2005		8.889	8.9	0.884330	10.1
2006		13.467	13.5	0.911886	14.8
2007		37.155	37.2	0.934220	39.8
2008		88.833	88.8	0.951262	93.4
2009		127.349	127.3	0.963477	132.2
2010		67.227	67.2	0.977928	68.7
2011		63.250	63.3	1.001278	63.2
2012		102.455	102.5	1.017884	100.7
2013		70.217	70.2	1.028573	68.3
2014		74.432	74.4	1.043106	71.4
2015		90.577	90.6	1.056231	85.8
2016		61.348	61.3	1.075835	57.0
2017		78.860	78.9	1.095964	72.0
2018		54.645	54.6	1.122809	48.7
2019		43.184	43.2	1.144434	37.7
2020		34.003	34.0	1.186520	28.7
2021		22.205	22.2	1.239847	17.9
2022		43.761	43.8	1.304619	33.5
2023		49.051	49.1	1.343458	36.5
2024		89.669	89.7	1.374126	65.3
2025		47.347	47.3	1.403276	33.7
2026		34.226	34.2	1.432744	23.9
2027		22.453	22.5	1.462832	15.3
2028		19.345	19.3	1.493552	13.0
2029		19.690	19.7	1.524916	12.9
2030		-	-	1.556939	-
2031		4.800	4.8	1.589635	3.0
2032		-	-	1.623017	-
2033		-	-	1.657101	-
2034		4.780	4.8	1.691900	2.8
2035		-	-	1.727430	-
2036		-	-	1.763706	-
2037		4.780	4.8	1.800744	2.7
2038		-	-	1.838559	-
2039		-	-	1.877169	-
2040		4.780	4.8	1.916590	2.5

Ground/Air Task Oriented Radar

Source for TY$-CY$ Conversion: ASN FMB-6 Inflation Rates and Outlay Factors for DA, DoN and DW accounts: 17 Jan 2024

1319N - Research, Development, Test & Eval, Navy					
fiscal year		Other/ Unallocated	Total TY($M)	Weighted Rate	Total CY2012 ($M)
2041		-	-	1.956838	-
2042		-	-	1.997932	-
2043		4.780	4.8	2.039888	2.3

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

Ground/Air Task Oriented Radar

Source for TY$-CY$ Conversion: ASN FMB-6 Inflation Rates and Outlay Factors for DA, DoN and DW accounts: 17 Jan 2024

1109N - Procurement, Marine Corps									
fiscal year	End Item Recurring Flyaway	Non-End Item Recurring Flyaway	Non-Recurring Flyaway	Initial Spares	Depot Activation	Other/ Unallocated	Total TY($M)	Weighted Rate	Total CY2012 ($M)
Total	**1,642.2**	**558.7**	**259.0**	**194.9**	**-**	**-**	**2,654.8**	**-**	**2,132.1**
2004							-	0.874188	-
2005							-	0.899175	-
2006							-	0.927603	-
2007							-	0.945595	-
2008							-	0.960889	-
2009							-	0.973923	-
2010							-	0.996278	-
2011							-	1.008511	-
2012	-	4.246	-	-			4.2	1.024530	4.1
2013	-	86.343	-	-			86.3	1.037836	83.2
2014	79.969	1.224	5.150	7.425			93.8	1.051450	89.2
2015	86.389	1.045	0.904	2.572			90.9	1.067424	85.2
2016	109.602	7.511	8.484	1.572			127.2	1.087316	117.0
2017	113.024	4.737	4.803	11.193			133.8	1.109807	120.5
2018	118.070	16.612	4.485	16.840			156.0	1.132733	137.7
2019	189.708	30.165	0.543	13.018			233.4	1.162013	200.9
2020	231.954	25.878	17.823	14.235			289.9	1.207607	240.1
2021	209.037	60.808	6.828	13.506			290.2	1.267624	228.9
2022	208.488	114.899	15.982	13.609			353.0	1.323061	266.8
2023	252.255	100.527	16.981	7.422			377.2	1.358561	277.6
2024	1.071	59.145	0.075	14.802			75.1	1.388656	54.1
2025	42.682	13.737	3.438	7.603			67.5	1.417991	47.6
2026	-	6.543	37.273	19.943			63.8	1.447769	44.0
2027	-	15.978	29.138	18.739			63.9	1.478172	43.2
2028	-	4.791	35.146	16.031			56.0	1.509213	37.1
2029	-	4.171	25.052	16.365			45.6	1.540907	29.6
2030	-	0.364	1.536	-			1.9	1.573266	1.2
2031	-	-	3.720	-			3.7	1.606305	2.3
2032	-	-	-	-			-	1.640037	-
2033	-	-	-	-			-	1.674478	-
2034	-	-	9.000	-			9.0	1.709642	5.3
2035	-	-	-	-			-	1.745544	-
2036	-	-	-	-			-	1.782201	-
2037	-	-	9.500	-			9.5	1.819627	5.2
2038	-	-	-	-			-	1.857839	-
2039	-	-	-	-			-	1.896854	-
2040	-	-	9.400	-			9.4	1.936688	4.9

Ground/Air Task Oriented Radar

Source for TY$-CY$ Conversion: ASN FMB-6 Inflation Rates and Outlay Factors for DA, DoN and DW accounts: 17 Jan 2024

1109N - Procurement, Marine Corps									
fiscal year	End Item Recurring Flyaway	Non-End Item Recurring Flyaway	Non-Recurring Flyaway	Initial Spares	Depot Activation	Other/ Unallocated	Total TY($M)	Weighted Rate	Total CY2012 ($M)
2041	-	-	-	-			-	1.977358	-
2042	-	-	-	-			-	2.018883	-
2043	-	-	8.000	-			8.0	2.061279	3.9
2044	-	-	-	-			-	2.104566	-
2045	-	-	5.700	-			5.7	2.148762	2.7

Acquired System Annual End-Item Quantities by Appropriation Account

(Aligned to Budget Position: PB 2025)

Ground/Air Task Oriented Radar

1109N - Procurement, Marine Corps				
fiscal year	GATOR			Total
Total	**54**			**54**
Undistributed				-
2013	2			2
2014	2			2
2015	2			2
2016	3			3
2017	3			3
2018	3			3
2019	6			6
2020	8			8
2021	8			8
2022	8			8
2023	9			9

Nuclear Costs

Ground/Air Task Oriented Radar

Program's Use of Department of Energy Resources
None

Operational Fielding Plan

Ground/Air Task Oriented Radar

System: GATOR

Fielding and Inventory Notes
Fielding is planned for 54 systems.

GATOR Fielding Plan and Inventory

fiscal year	Store	Field	Expend/Loss	Decommission	Inventory
2023					
2024		5			5
2025		7			12
2026		5			17
2027		1			18
2028		10			28
2029					28

O&S Independent Cost Estimate

Ground/Air Task Oriented Radar

Independent and Current Cost Estimate Comparison

Category CY2012 ($M)	Independent Cost Estimate 5/8/2019	Current Estimate 12/31/2023	Variance with ICE (%)
Unit-Level Manpower	220.3	256.0	16%
Unit Operations	11.8	9.7	-17%
Maintenance	1,448.1	1,216.1	-16%
Sustaining Support	374.2	400.7	7%
Continued System Improvements	324.9	348.8	7%
Other	69.0	115.6	68%
Total O&S	**2,448.2**	**2,346.8**	**-4%**

Independent Cost Estimate Source

Event: FRP 2019 Component Cost Position
Type: Component Cost Position
Approved by: Center for Naval Analyses, May 8, 2019

Current Cost Estimate Source

Type: Life-cycle Cost Estimate
Approved by: Program Manager, December 31, 2023

Cost Estimate Variance Explanation

The 2019 Cost Estimate was based on preliminary actual data obtained from systems that were fielded.

Annual Operating and Support Estimates by Cost Element

Ground/Air Task Oriented Radar

System: GATOR

Source for TY-CY Conversion: ACEIT Inflation Indices

Operating and Support Cost Elements							
fiscal year	1.0 Unit-Level Manpower	2.0 Unit Operations	3.0 Maintenance	4.0 Sustaining Support	5.0 Continuing System Improvements	Other	Total CY2012 ($M)
Total	**256.0**	**9.7**	**1,216.1**	**400.7**	**348.8**	**115.6**	**2,346.8**
2012	-	-	-	3.699	-	-	3.7
2013	-	-	-	5.074	-	-	5.1
2014	-	-	-	8.489	-	-	8.5
2015	-	-	-	9.056	-	-	9.1
2016	-	-	-	6.671	-	-	6.7
2017	-	0.042	-	8.893	-	-	8.9
2018	0.416	0.059	0.017	7.967	5.492	0.139	14.1
2019	2.690	0.098	0.481	9.887	5.022	0.975	19.2
2020	3.656	0.146	3.616	13.602	5.961	1.463	28.4
2021	4.071	0.123	6.839	44.092	7.384	1.672	64.2
2022	4.716	0.167	7.082	26.054	8.083	2.020	48.1
2023	6.101	0.327	5.767	36.499	8.423	2.786	59.9
2024	6.917	0.258	12.795	30.669	12.831	3.135	66.6
2025	8.852	0.364	32.461	18.062	12.396	3.970	76.1
2026	10.068	0.445	62.469	17.123	12.497	4.667	107.3
2027	10.068	0.425	59.832	16.827	12.939	4.667	104.8
2028	11.314	0.450	58.668	16.570	14.218	5.085	106.3
2029	12.189	0.611	65.437	16.496	15.548	5.503	115.8
2030	12.189	0.511	51.761	14.851	14.647	5.503	99.5
2031	12.189	0.522	43.428	7.454	13.064	5.503	82.2
2032	12.189	0.398	54.062	7.271	11.952	5.503	91.4
2033	12.189	0.378	67.847	7.271	15.044	5.503	108.2
2034	12.189	0.389	64.831	6.904	16.746	5.503	106.6
2035	12.189	0.445	61.351	6.904	13.096	5.503	99.5
2036	12.189	0.378	65.437	6.904	11.749	5.503	102.2
2037	12.189	0.378	51.761	6.720	10.896	5.503	87.4
2038	12.189	0.378	43.428	6.211	13.451	5.503	81.2
2039	11.773	0.353	53.290	6.211	13.441	5.364	90.4
2040	9.499	0.384	64.492	5.844	11.307	4.528	96.1
2041	8.533	0.321	59.805	3.955	10.457	4.040	87.1
2042	8.117	0.278	55.174	3.480	8.711	3.831	79.6
2043	7.472	0.236	57.343	3.480	10.845	3.483	82.9
2044	6.088	0.208	41.141	3.480	11.291	2.717	64.9

System: GATOR

Source for TY-CY Conversion: ACEIT Inflation Indices

Operating and Support Cost Elements							
fiscal year	1.0 Unit-Level Manpower	2.0 Unit Operations	3.0 Maintenance	4.0 Sustaining Support	5.0 Continuing System Improvements	Other	Total CY2012 ($M)
2045	5.272	0.174	30.802	1.646	8.287	2.368	48.5
2046	3.337	0.150	21.601	1.646	8.265	1.532	36.5
2047	2.121	0.134	5.378	1.573	8.265	0.836	18.3
2048	2.121	0.134	4.999	1.573	8.265	0.836	17.9
2049	0.874	0.059	2.683	1.573	8.265	0.418	13.9