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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Air Force **Date:** April 2022

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force / BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0305238F / NATO AGS
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COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	-	36.664	19.473	0.826	0.000	0.826	0.843	0.858	0.876	0.895	Continuing	Continuing
676001: NATO AGS	-	36.664	19.473	0.826	0.000	0.826	0.843	0.858	0.876	0.895	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This program funds the U.S. contribution to the Alliance Ground Surveillance (AGS) system, a North Atlantic Treaty Organization (NATO), Direct Commercial Sale acquisition. AGS is an airborne ground surveillance capability that provides continuous, wide area surveillance in all weather conditions. It will provide NATO decision makers with near real time information and situational awareness concerning friendly, neutral and opposing ground and maritime forces to support mission planning and execution, including force protection and targeting. All NATO nations will have access to AGS collection data, creating opportunities for burden sharing with the processing and exploitation of Intelligence, Surveillance, and Reconnaissance (ISR) data.

The AGS program includes: air and ground segment acquisitions, operations of the NATO AGS Management Agency (NAGSMA), development of operations and support definition and establishment of an initial support capability. The air segment consists of five (5) air vehicles based on unique exportable configurations of the United States Air Force Global Hawk air frame, Navy Triton command and control architecture and the U.S. Multi-Platform Radar Technology Insertion Program (MP-RTIP) radar. The U.S. will also integrate new Maritime Moving Target and Inverse Synthetic Aperture Radar capability into the MP-RTIP radar for NATO AGS. The ground segment consists of fixed site and transportable/mobile ground stations for air vehicle Command and Control (C2), data exploitation and distribution. Operations and continuing In-Service Support will be funded through a future NATO Military Commanders' Capability Package funded within the NATO Security Investment Program (NSIP).

U.S. participation in NATO AGS was ratified by Secretary of Defense (SECDEF) signature/approval of the NATO AGS Program Memorandum of Understanding (PMOU) in June 2009 and includes 15 nations. In FY 2012, OSD transferred the NATO AGS program to the U.S. Air Force (USAF) for management and execution of the Research and Development effort.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver NATO AGS system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program elements 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In PY \$0.00M was expended for civilian pay expenses in this program element, and in CY \$0.00M is forecasted for civilian pay expenses in this program element.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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B. Program Change Summary (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	36.664	19.473	0.000	0.000	0.000
Current President's Budget	36.664	19.473	0.826	0.000	0.826
Total Adjustments	0.000	0.000	0.826	0.000	0.826
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	0.826	0.000	0.826

Change Summary Explanation

The FY 2022 President's Budget submittal did not reflect FY 2023 through FY 2026 funding. Therefore, an explanation of the change between the two budget positions for FY2023 cannot be made in a relevant manner.

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023
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Title: Design / Development of NATO Alliance Ground Surveillance (AGS)	0.254	4.384	0.200
Description: U.S. contribution to NATO for AGS development acquisition and initial fielding. Supports configuration changes at a system level and air vehicle exportability modifications.			
FY 2022 Plans: - Continues to support U.S. Government's contribution to NATO AGS Management Agency (NAGSMA) closeout costs.			
FY 2023 Plans: - Will continue to support U.S. Government's contribution to NATO AGS Management Agency (NAGSMA) closeout costs.			
FY 2022 to FY 2023 Increase/Decrease Statement: - Funding decreased due to completion of program office liquidation.			
Title: Design/Development of Maritime Modes	23.463	13.261	0.000
Description: Supports development and flight testing of maritime modes capability for RTIP and additional configuration changes that cannot be performed under the direct commercial sale contract between Northrop Grumman and NAGSMA.			
FY 2022 Plans:			

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022	FY 2023
<p>- Integrates new software into ground systems for test. Will integrate and test software on remaining NATO AGS aircraft.</p> <p>FY 2023 Plans:</p> <p>- Planning completion of Maritime Modes and Program Protection Integration in FY22.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement:</p> <p>- Funding decreased due to planned completion of Maritime Modes and Program Protection Integration in FY22.</p>				
<p>Title: Technical Support for NATO Alliance Ground Surveillance (AGS)</p> <p>Description: Provide engineering and logistics support for NATO AGS development, fielding, deferred capabilities, and obsolescence studies.</p> <p>FY 2022 Plans:</p> <p>- Continues engineering, logistics, and program office support for Maritime Modes development and fielding. Will support evaluation of fielded aircraft to inform studies on sustainment requirements.</p> <p>FY 2023 Plans:</p> <p>- Will transition engineering, logistics, and program office support from initial fielding to sustainment activities, including AGS participation in NATO's UNIFIED VISION series.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement:</p> <p>- Funding decreased due to transition of engineering, logistics, and program office support from development to sustainment activities.</p>		0.103	1.778	0.626
<p>Title: Test and Evaluation Support for NATO Alliance Ground Surveillance (AGS)</p> <p>Description: Provide testing and evaluation via the Air Force Test Center.</p> <p>FY 2022 Plans:</p> <p>- Conducting Maritime Modes flight testing.</p> <p>FY 2023 Plans:</p> <p>- Planning completion of test and evaluation support in conjunction with completion of Maritime Modes integration in FY22.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement:</p> <p>- Funding decreased due to planned completion of test and evaluation support in conjunction with completion of Maritime Modes integration in FY22.</p>		12.844	0.050	0.000
Accomplishments/Planned Programs Subtotals		36.664	19.473	0.826

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D. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• RDTE 07 PE 0305220F: RQ-4 UAV	163.291	83.124	96.477	-	96.477	105.717	28.246	0.000	0.000	Continuing	Continuing

Remarks

E. Acquisition Strategy

Acquisition of the AGS system is being accomplished via a single delivery strategy. The system has been delivered via a fixed price direct commercial sale contract between Northrop Grumman Integrated System Sector International, Incorporated (NGISSII) & NATO, which was signed on 20 May 2012. The program is managed by the NATO AGS Management Agency (NAGSMA) and will closeout and liquidate in 2023.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Air Force												Date: April 2022				
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)								
3600 / 7				PE 0305238F / NATO AGS				676001 / NATO AGS								
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
NATO AGS Design / Development	SS/FFP	NATO AGS Management Agency : Brussels, Belgium	-	0.254	Dec 2020	4.384	Dec 2021	0.200	Dec 2022	-		0.200	Continuing	Continuing	0.200	
Maritime Modes Design / Development	SS/CPIF	AFLCMC/HB : WPAFB, OH	-	23.463	Dec 2020	13.261	Dec 2021	0.000	Dec 2022	-		0.000	Continuing	Continuing	-	
Subtotal			-	23.717		17.645		0.200		-		0.200	Continuing	Continuing	N/A	
Support (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
NATO AGS Technical Support	SS/FFP	Multiple : Hanscom, WPAFB, OH	-	0.103	Dec 2020	1.778	Dec 2021	0.626	Dec 2022	-		0.626	Continuing	Continuing	0.626	
Subtotal			-	0.103		1.778		0.626		-		0.626	Continuing	Continuing	N/A	
Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
NATO AGS Test and Evaluation Support	SS/FFP	Multiple: AFLCMC/ WI, AFLCMC/HB, 412 TW, 88 CG : Hanscom, WPAFB, Edwards	-	12.844	Dec 2020	0.050	Dec 2021	0.000	Dec 2022	-		0.000	Continuing	Continuing	-	
Subtotal			-	12.844		0.050		0.000		-		0.000	Continuing	Continuing	N/A	
Project Cost Totals			-	36.664		19.473		0.826		-		0.826	Continuing	Continuing	N/A	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Air Force **Date:** April 2022

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305238F / NATO AGS	Project (Number/Name) 676001 / NATO AGS
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	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
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Remarks
 The Industrial Structure consists of Northrop Grumman (Northrop Grumman Integrated Systems Sector International, Incorporated - NGISSII) prime contractor, three subcontractors, and 15 participating nation industries that will receive direct work. There are no indirect offsets. The technical support of the NATO AGS program includes Advisory & Assistance Services to NATO.

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 Air Force **Date:** April 2022

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305238F / NATO AGS	Project (Number/Name) 676001 / NATO AGS
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	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
NATO AGS																												
Design and Development - NATO AGS																												
Aircraft #5 Delivery to NATO (October 2020)																												
System Level Performance Verification (December 2019 - March 2021)																												
IOC (February 2021)																												
FOC (November 2024)																												
Test & Eval Support to NATO AGS																												
Design & Development - Maritime Modes																												
Tech Support - NATO AGS																												
Maritime Mode Test Support																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 Air Force **Date:** April 2022

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305238F / NATO AGS	Project (Number/Name) 676001 / NATO AGS
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
NATO AGS				
Design and Development - NATO AGS	1	2021	4	2023
Aircraft #5 Delivery to NATO (October 2020)	1	2021	1	2021
System Level Performance Verification (December 2019 - March 2021)	1	2021	2	2021
IOC (February 2021)	2	2021	2	2021
FOC (November 2024)	1	2025	1	2025
Test & Eval Support to NATO AGS	1	2021	1	2021
Design & Development - Maritime Modes	1	2021	4	2022
Tech Support - NATO AGS	1	2021	4	2027
Maritime Mode Test Support	1	2021	4	2022