

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Navy **Date:** March 2024

Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0207163N / AMRAAM
---	--

COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	354.568	30.385	29.198	29.638	-	29.638	27.380	26.713	27.220	27.786	242.161	795.049
0981: AMRAAM	354.568	30.385	29.198	29.638	-	29.638	27.380	26.713	27.220	27.786	242.161	795.049

Program MDAP/MAIS Code:
Project MDAP/MAIS Code(s): 185

A. Mission Description and Budget Item Justification

The Advanced Medium Range Air-to-Air Missile (AMRAAM) is a joint Air Force/Navy, Acquisition Category 1D program with Air Force as lead service. AMRAAM is the premier all-weather, all-environment, radar guided missile with improved capabilities against very low and high-altitude targets in an electronic attack environment. The current AMRAAM variant, the AIM-120D, delivers improved performance via Global Positioning System (GPS) aided navigation; two way datalink capability for enhanced aircrew survivability and improved network compatibility; and incorporates new guidance software that improves kinematic performance and weapon effectiveness.

This Air Force/Navy program is structured in response to the Joint Service Operational Requirement Document and Mission Element Need Statement to develop an air superiority air-to-air missile with significant improvements in operational utility and combat effectiveness. The development program enhances AMRAAM capability and operational flexibility against current and projected threats, incorporates high payoff technology development, performs risk reduction activities, and investigates new variants and/or alternate missions that may use AMRAAM attributes. To maximize effectiveness of existing inventory and address findings from the field, the Navy and Air Force also develop, test, and field improvements via software upgrades into fielded missiles, and/or hardware upgrades inserted into the production line.

This program supports the integration of the Advanced Medium Range Air-to-Air Missile (AMRAAM) into Navy aircraft with analysis of Navy unique applications, aircraft missile integration tasks, product improvement efforts including missile software upgrade development and procurement of hardware to support Navy test and evaluation tasks. Funding in FY 2025 through FY 2029 supports System Improvement Program (SIP) and Navy unique Test & Evaluation (T&E) for software fielding.

This program is funded under OPERATIONAL SYSTEMS DEVELOPMENT because it includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate funding in the current or subsequent fiscal year.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Navy	Date: March 2024
---	-------------------------

Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0207163N / AMRAAM
---	--

B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	30.898	29.198	29.795	-	29.795
Current President's Budget	30.385	29.198	29.638	-	29.638
Total Adjustments	-0.513	0.000	-0.157	-	-0.157
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.513	0.000			
• Program Adjustments	0.000	0.000	-0.134	-	-0.134
• Rate/Misc Adjustments	0.000	0.000	-0.023	-	-0.023

Change Summary Explanation

Financial: The FY 2025 funding request was adjusted by \$0.157M for minor adjustments.

Technical: Not Applicable

Schedule: SIP-4 completion shifted from 3Q FY 2025 to 1Q FY 2026 due to software complexity and delays in test hardware delivery. The SIP-4 slip does not impact program funding. SIP is a continuous software development program with SIP-4 as the baseline software for the AIM-120D-3, upon which follow-on SIPs will be built. The shift is reflected in SIP-5 and beyond as the start of SIP-5 is tied to SIP-4 entering integrated test.

SIP-3F fielding shifted from 3Q FY 2023 to 2Q FY 2024 due to fielding certification delays. The delay has no financial impact.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy **Date:** March 2024

Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0207163N / AMRAAM	Project (Number/Name) 0981 / AMRAAM
--	--	---

COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
0981: AMRAAM	354.568	30.385	29.198	29.638	-	29.638	27.380	26.713	27.220	27.786	242.161	795.049
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Project MDAP/MAIS Code: 185

A. Mission Description and Budget Item Justification

This Air Force/Navy program is structured in response to the Joint Service Operational Requirement Document and Mission Element Need Statement to develop an air superiority air-to-air missile with significant improvements in operational utility and combat effectiveness. This program supports the integration of AMRAAM into Navy aircraft with analysis of Navy unique applications, aircraft missile integration tasks, product improvement efforts including missile software upgrade development and procurement of hardware to support Navy test and evaluation tasks. Funding in FY 2024 through FY 2028 supports System Improvement Program (SIP) and Navy unique Test & Evaluation (T&E) for software fielding.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
<p>Title: Test and Evaluation</p> <p align="right">Articles:</p> <p>Description: Test and Evaluation and associated government support required to ensure AIM-120 missile integration with Department of the Navy aircraft platforms (F/A-18 C/D/E/F/G, AV-8B and F-35), hardware-in-the-loop facility operations.</p> <p>FY 2024 Plans: Continue to develop and procure test resources required to meet test requirements and provide support personnel to complete AIM-120 DT and OT events. Continue hardware-in-the-loop facility operations.</p> <p>FY 2025 Base Plans: Continue to develop and procure test resources required to meet test requirements and provide support personnel to complete AIM-120 DT and OT events. Continue hardware-in-the-loop facility operations.</p> <p>FY 2025 OCO Plans: N/A</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: FY 2025 T&E increased by \$1.365M due to OT requirements and hiring actions filling critical government test and evaluation vacancies.</p>	10.737	10.177	11.542	0.000	11.542
Articles:	-	-	-	-	-
<p>Title: System Improvement Program (SIP) Efforts</p> <p align="right">Articles:</p>	19.648	19.021	18.096	0.000	18.096
Articles:	-	-	-	-	-

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0207163N / AMRAAM	Project (Number/Name) 0981 / AMRAAM

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
<p>Description: Continuation of SIP Risk Reduction efforts for the AMRAAM weapons system. Efforts include systems engineering, program management, missile software and/or hardware upgrades to increase capability, survivability, lethality, as well as aircraft Operational Flight Profile updates on a recurring basis. SIP-3F will host AIM-120D SIP-3 software on AIM-120D3 hardware. AIM-120D3 SIP-4 will exploit new Form, Fit, Function Refresh (F3R) hardware to maximize missile performance. AIM-120D SIP 3 Tape 2 will address newly matured capabilities, emerging threats, and OT deficiencies. AIM-120D3 SIP-5 will increase heart of the envelope performance and address an expanded threat space. Candidate Selection Process (CSP) analyzes warfighter priority deficiencies and enhancements to feed risk reduction efforts and future SIP efforts.</p> <p>FY 2024 Plans: Continue CSP. Continue SIP-4 software development. Complete SIP-3 Tape 2 software development and enter integrated test.</p> <p>FY 2025 Base Plans: Continue CSP. Complete SIP-4 software development with Minimum Viability Capability Release (MVCR) and enter integrated test. Field SIP-3 Tape 2. Begin SIP-5 software development.</p> <p>FY 2025 OCO Plans: N/A</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: FY 2025 SIP decreased by \$0.925M due to SIP-4 development shifting to the government test phase of the program.</p>					
Accomplishments/Planned Programs Subtotals	30.385	29.198	29.638	0.000	29.638

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

Line Item	FY 2023	FY 2024	FY 2025	FY 2025	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Cost To	
			Base	OCO	Total					Complete	Total Cost
• WPN/ 2206: AMRAAM	335.900	439.153	279.626	-	279.626	70.412	70.655	18.160	18.591	0.000	4,637.790
• MPAF/3479: AMRAAM	371.104	701.459	447.373	-	447.373	667.287	115.812	39.966	0.000	0.000	13,146.174
• RDTE,AF/673777: AMRAAM	36.055	53.679	53.593	-	53.593	51.994	53.062	54.982	56.069	374.952	1,543.777

Remarks

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0207163N / <i>AMRAAM</i>	Project (Number/Name) 0981 / <i>AMRAAM</i>

D. Acquisition Strategy

AMRAAM production procurements will continue across the Future Years Defense Program with periodic pre-planned technical design refreshes and value engineering change proposals.

AMRAAM's Acquisition Program Baseline was updated on 28 Oct 2015.

AMRAAM's Acquisition Strategy Report was updated 16 May 2018.

SIP development efforts continually mature capabilities through software and/or hardware upgrades to maximize missile performance to address current and emerging threats. These missile performance improvements are incrementally fielded ensuring inventory viability into the future. SIP development contracts are cost type efforts.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy **Date:** March 2024

Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0207163N / AMRAAM	Project (Number/Name) 0981 / AMRAAM
--	--	---

Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Primary Hdw Development (EGLIN)	SS/CPAF	RAYTHEON COMPANY : Tucson AZ	169.745	16.556	Jan 2023	16.022	Jan 2024	15.236	Jan 2025	-		15.236	191.779	409.338	409.338
Award Fees (EGLIN)	SS/CPAF	RAYTHEON COMPANY : Tucson AZ	28.459	2.922	Jan 2023	2.827	Jan 2024	2.689	Jan 2025	-		2.689	33.843	70.740	70.740
Primary Hdw Development (NAWCAD)	WR	NAWCAD : Patuxent River MD	5.536	0.102	Nov 2022	0.106	Nov 2023	0.106	Nov 2024	-		0.106	1.441	7.291	-
Prior Years Dev Cost no longer funded in the FYDP	Various	Various : Various	32.477	0.000		0.000		0.000		-		0.000	0.000	32.477	-
Subtotal			236.217	19.580		18.955		18.031		-		18.031	227.063	519.846	N/A

Remarks
Award Fee is 15%.

Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Prior Years Support costs no longer funded in the FYDP	Various	Various : Various	23.795	0.000		0.000		0.000		-		0.000	0.000	23.795	-
Subtotal			23.795	0.000		0.000		0.000		-		0.000	0.000	23.795	N/A

Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Developmental Test & Evaluation (DT&E)	WR	NAWCWD : China Lake CA	79.651	10.237	Nov 2022	8.935	Nov 2023	10.373	Nov 2024	-		10.373	113.024	222.220	-
Operational Test & Evaluation (OT&E)	WR	COMOPTEVFOR : Norfolk, VA	5.945	0.500	Mar 2023	1.242	Mar 2024	1.169	Mar 2025	-		1.169	10.463	19.319	-
Subtotal			85.596	10.737		10.177		11.542		-		11.542	123.487	241.539	N/A

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy **Date:** March 2024

Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0207163N / AMRAAM	Project (Number/Name) 0981 / AMRAAM
--	--	---

Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			

Remarks
FY 2025 T&E increased by \$1.365 million due to Operational Test requirements and hiring actions filling critical government test vacancies.

Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Management Support	C/CPFF	PMA-259 : Patuxent River, MD	1.297	0.000		0.000		0.000		-		0.000	0.000	1.297	1.297
Travel	MIPR	PMA-259 : Eglin AFB FL	3.661	0.068	Oct 2022	0.066	Oct 2023	0.065	Oct 2024	-		0.065	0.711	4.571	-
Prior Years Mgmt Costs no longer funded in the FYDP	Various	Various : Various	4.002	0.000		0.000		0.000		-		0.000	0.000	4.002	-
Subtotal			8.960	0.068		0.066		0.065		-		0.065	0.711	9.870	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals		354.568	30.385		29.198		29.638		-	29.638	351.261	795.050	N/A

Remarks

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy

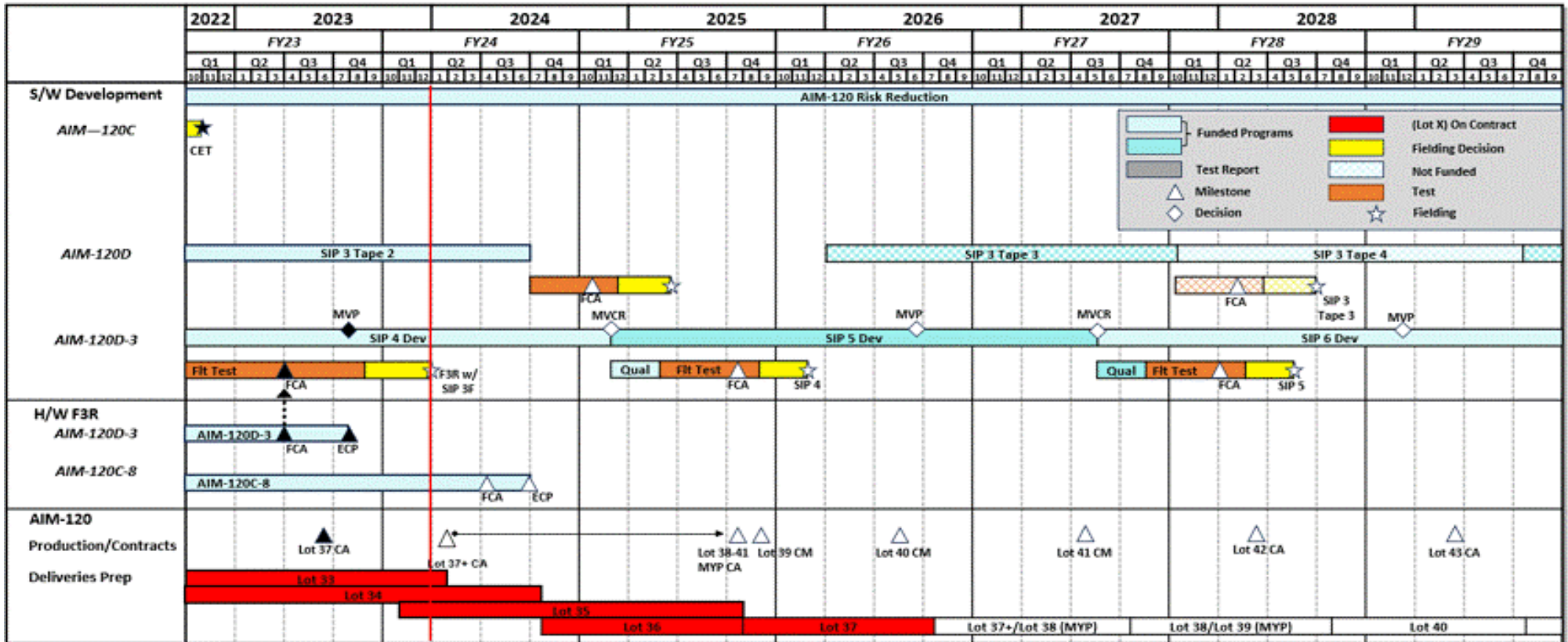
Date: March 2024

Appropriation/Budget Activity
1319 / 7

R-1 Program Element (Number/Name)
PE 0207163N / AMRAAM

Project (Number/Name)
0981 / AMRAAM

AMRAAM Program Schedule



Agile Terminology IAW DODI 5000.02: MVP = Minimum Viable Product
MVCR = Minimum Viable Capability Release

Baseline: 1 Oct 2023
Approved: 1 Jan 2024

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0207163N / AMRAAM	Project (Number/Name) 0981 / AMRAAM

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
AMRAAM				
Acquisition Milestones: Milestones: CET Fielding	1	2023	1	2023
Acquisition Milestones: Milestones: SIP-3F AIM-120D3 FCA	2	2023	2	2023
Acquisition Milestones: Milestones: SIP-3F AIM-120D3 Fielding	2	2024	2	2024
Acquisition Milestones: Milestones: SIP-3 Tape 2 FCA	1	2025	1	2025
Acquisition Milestones: Milestones: SIP-3 Tape 2 Fielding	2	2025	2	2025
Acquisition Milestones: Milestones: SIP-4 FCA	4	2025	4	2025
Acquisition Milestones: Milestones: SIP-4 Fielding	1	2026	1	2026
Acquisition Milestones: Milestones: SIP-5 FCA	1	2028	1	2028
Acquisition Milestones: Milestones: SIP-5 Fielding	3	2028	3	2028
Systems Development: Software Development: SIP-3F Development	1	2023	2	2024
Systems Development: Software Development: SIP-4 Development	1	2023	1	2026
Systems Development: Software Development: SIP 3 Tape 2 Development	1	2023	2	2025
Systems Development: Software Development: SIP-5 Development	1	2025	3	2028
Systems Development: Software Development: SIP-6 Development	3	2027	4	2029
Test and Evaluation: SIP-3F	1	2023	2	2024
Test and Evaluation: SIP-4	1	2025	1	2026
Test and Evaluation: SIP-3 Tape 2	4	2024	2	2025
Test and Evaluation: SIP-5	3	2027	3	2028
Production Contract Awards: Production Lot 37 Contract Award	3	2023	3	2023
Production Contract Awards: Production Lot 38 Contract Award	4	2025	4	2025
Production Contract Awards: Production Lot 39 Contract Award	4	2025	4	2025
Production Contract Awards: Production Lot 40 Contract Award	3	2026	3	2026

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy **Date:** March 2024

Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0207163N / AMRAAM	Project (Number/Name) 0981 / AMRAAM
--	--	---

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Production Contract Awards: Production Lot 41 Contract Award	3	2027	3	2027
Production Deliveries: Production Lot 33 AUR	1	2023	2	2024
Production Deliveries: Production Lot 34 AUR	1	2023	4	2024
Production Deliveries: Production Lot 35 AUR	1	2024	4	2025
Production Deliveries: Production Lot 36 AUR	4	2024	4	2025
Production Deliveries: Production Lot 37 AUR	4	2025	4	2026
Production Deliveries: Production Lot 38 AUR	4	2026	4	2027
Production Deliveries: Production Lot 39 AUR	4	2027	4	2028
Production Deliveries: Production Lot 40 AUR	4	2029	4	2029