

UNCLASSIFIED

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

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0207573F / <i>National Technical Nuclear Forensics</i>
--	---

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	-	2.039	2.049	2.060	0.000	2.060	0.000	0.000	2.004	2.004	0.000	10.156
674881: <i>Prompt Diagnostics</i>	-	2.039	2.049	2.060	0.000	2.060	0.000	0.000	2.004	2.004	0.000	10.156
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

This is an amendment, prior verbiage had this funding pointing to National Technical Nuclear Forensics [NTNF].

The United States Nuclear Detonation [NUDET] Detection System [USNDS] is the system used for the collection, analysis, and evaluation of signatures from NUDETS in the Atmosphere or Space. This funding is to integrate the data from the seconds and third Space and Atmospheric Burst Reporting System [SABRS] sensors into the Integrated Correlation and Display System [ICADS] and to develop algorithms, codes, and tools necessary to enable detailed Subject Matter Expert analysis of SABRS data.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 \$0 was expended for civilian pay expenses in this program element, and in FY24 \$0 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.

<u>B. Program Change Summary (\$ in Millions)</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025 Base</u>	<u>FY 2025 OCO</u>	<u>FY 2025 Total</u>
Previous President's Budget	2.039	2.049	2.057	0.000	2.057
Current President's Budget	2.039	2.049	2.060	0.000	2.060
Total Adjustments	0.000	0.000	0.003	0.000	0.003
• 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	0.003	0.000	0.003

UNCLASSIFIED

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

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0207573F / <i>National Technical Nuclear Forensics</i>
--	---

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<p>Title: ABRS 2/3 Integration/ Offline Tools Development</p> <p>Description: Develop the algorithms, codes, and tools necessary to fully exploit the data collected by the SABRS-2 and SABRS-3 sensor suites located on geostationary hosts. This detection system records signals resulting from a nuclear detonations occurring in space. These event signature elements support weapon and event characterization analysis for the purposes of identifying the weapon classification, magnitude of the detonation [yield], and Reaction Time History [RTH] of the device. The unique signatures captured by these sensors provide undeniable evidence of NUDETs occurring in space.</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - Will finish SABRS -2/3 data integration into ICADS - Will Continue algorithm, code, and tool development necessary for SME analysis of SABRS data <p>FY 2025 Plans:</p> <ul style="list-style-type: none"> - Will finish SABRS -2/3 data integration into ICADS - Will Continue algorithm, code, and tool development necessary for SME analysis of SABRS data <p>FY 2024 to FY 2025 Increase/Decrease Statement: Funding increased due to inflation.</p>	2.039	2.049	2.060
Accomplishments/Planned Programs Subtotals	2.039	2.049	2.060

D. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• OPAF 03 Line Item 834320: <i>National Technical Nuclear Forensics</i>	5.666	3.786	7.177	-	7.177	7.379	7.524	7.674	-	Continuing	Continuing

Remarks

E. Acquisition Strategy
Contract strategy still being assessed, historically contracted via MIPR.

UNCLASSIFIED

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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207573F / <i>National Technical Nuclear Forensics</i>	Project (Number/Name) 674881 / <i>Prompt Diagnostics</i>
--	---	--

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			
Nuclear Forensics - Prompt Diagnostics	MIPR	National Laboratory : TBD	-	2.039	Mar 2023	2.049	Mar 2024	2.060	Mar 2025	-		2.060	Continuing	Continuing	-
Subtotal			-	2.039		2.049		2.060		-		2.060	Continuing	Continuing	N/A

Remarks
Kansas City Nuclear Security Campus will work with several National Laboratories for reachback/collaboration on efforts.

	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	-	2.039	2.049	2.060	-	2.060	Continuing	Continuing	N/A

Remarks

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207573F / <i>National Technical Nuclear Forensics</i>	Project (Number/Name) 674881 / <i>Prompt Diagnostics</i>

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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

SABRS Agorithm and Tool Development	
SABRSABRS-2/3 Data Integration into ICADS	██████████
Algorithm, Code, and Tool Development for SME Data Analysis	██

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207573F / <i>National Technical Nuclear Forensics</i>	Project (Number/Name) 674881 / <i>Prompt Diagnostics</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
SABRS Algorithm and Tool Development				
SABRSABRS-2/3 Data Integration into ICADS	1	2023	4	2023
Algorithm, Code, and Tool Development for SME Data Analysis	1	2023	4	2025