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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 I BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0305176F / <i>Combat Survivor Evader Locator</i>
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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	-	0.935	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
654522: <i>CSAR EMD</i>	-	0.935	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Personnel Recovery is the United States Air Force's effort to prepare for and execute recovery and reintegration of isolated personnel. The Combat Survivor Evader Locator (CSEL) System is the US Department of Defense's (DoD) Program of Record for Joint Search and Rescue, to locate, authenticate, and communicate with Joint forces who become isolated personnel. The Hand Held Radio (HHR) is the primary communications link for Joint forces who become isolated personnel in contested environments. The HHR provides secure, over-the-horizon, two-way data communications and precise geo-positioning information to rescue forces. It can operate in an anti-access/area denial (A2/AD) environment by providing a low probability of intercept/low probability of detection communications for isolated personnel. The HHR is one segment of the overall CSEL command and control architecture, including the UHF satellite base stations (UBS) and the Joint Personnel Recovery Center web application. The current HHR encryption requires modification to comply with current National Security Agency (NSA) cryptographic standards. The NSA is discontinuing the production and distribution of DES-based cryptographic keying material.

The HHR has significantly diminishing material sources and unsupportable hardware, including reliance on legacy Ultra High Frequency (UHF) satellite communication. UHF capabilities are nearing the end of life, and the CSEL system must move to next-generation secured satellite communication. In concert with the Services and the CSEL Joint Program Office, the Navy conducted a Business Case Analysis. It determined that a recapitalization of the CSEL HHR was more cost-effective than modifying the existing AN/PRQ-7/A. This effort is known as Next Generation Survival Radio (NGSR). The CSEL Joint Program Management Office (JPMO) will execute the NGSR effort in a two-pronged approach:

1. The program will leverage Gov't-owned satellite systems to establish a modern Beyond Line of Sight (BLOS) capability to replace legacy UHF capabilities and ensure encrypted voice and data communication.
2. The program office will replace the existing HHR with an Industry-led next-generation survival device. The hand-held device will meet all requirements found in the Operational Requirements Document.

The CSEL JPMO will execute funding to validate and verify Government and Industry-led solutions, minimize risk, and accelerate capability maturation. The JPMO will involve Stakeholders across the Joint Services, National Agencies, and Operational community to meet the intent and maintain the integrity of the Joint Capability. The JPMO will foster a competitive acquisition through Requests For Proposals, including downselect and prototype development opportunities.

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full rate production.

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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	0.971	0.000	0.000	0.000	0.000
Current President's Budget	0.935	0.000	0.000	0.000	0.000
Total Adjustments	-0.036	0.000	0.000	0.000	0.000
• 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	-0.036	0.000	0.000	0.000	0.000

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 FY 2023 cannot be made in relevant manner.