

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2021 Air Force **Date:** February 2020

Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3600: <i>Research, Development, Test & Evaluation, Air Force I BA 3: Advanced Technology Development (ATD)</i>					PE 0603444F / <i>Maui Space Surveillance System (MSSS)</i>							
COST (\$ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
Total Program Element	-	10.268	11.878	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
634868: <i>Maui Space Surveillance System</i>	-	10.268	11.878	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program funds ground-based optical space situational awareness (SSA) technology development and demonstration at the Maui Space Surveillance System (MSSS) in Hawaii, as well as the operation and upgrade of the facility. Efforts in this program have been coordinated through the Department of Defense Science and Technology Executive Committee process to harmonize efforts and eliminate duplication.

In the FY 2021, the Air Force is consolidating its existing thirteen Advanced Technology Development (ATD), Research Development Test and Evaluation (RDT&E), Budget Activity 03 (BA 03) PEs into five new capability focused RDT&E BA 03 PEs to better align with the Air Force Science and Technology (S&T) Strategy signed by the SECAF in April 2019. This consolidation will improve and accelerate delivery of integrated transformational, multidisciplinary, collaborative technology solutions necessary to enable new Air Force warfighting capabilities that support of the National Defense Strategy. This new structure will provide the Air Force and Congress with a clearer understanding and increased transparency of integrated technology solutions and demonstrations key to enabling the Air Force future force design.

In FY 2021, the entirety of PE 0603444F, Maui Space Surveillance System (MSSS), and associated Projects will be transferred to PE 0603034F, Persistent Knowledge, Awareness, & C2 Tech, as part of the Air Force RDT&E BA 03 PE consolidation in order to realign technology areas to better support the National Defense Strategy, Air Force Future Operating Concept, and Air Force S&T Strategy, April 2019. This is an administrative realignment and not a new start. The Project and associated efforts will continue to be executed by the Air Force Research Laboratory Directed Energy Technology Directorate located in Kirtland Air Force Base, New Mexico.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver science & technology capabilities. The use of program funds in this PE would be in addition to the civilian pay expenses budgeted in program elements 0601102F, 0602102F, 0602201F, 0602202F, 0602203F, 0602204F, 0602602F, 0602605F, 0602788F, 1206601SF, and 0602298F.

This program is in Budget Activity 3, Advanced Technology Development because this budget activity includes development of subsystems and components and efforts to integrate subsystems and components into system prototypes for field experiments and/or tests in a simulated environment.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2021 Air Force **Date:** February 2020

Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 3: Advanced Technology Development (ATD)	R-1 Program Element (Number/Name) PE 0603444F I Maui Space Surveillance System (MSSS)
---	---

B. Program Change Summary (\$ in Millions)	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Previous President's Budget	10.674	11.878	12.094	0.000	12.094
Current President's Budget	10.268	11.878	0.000	0.000	0.000
Total Adjustments	-0.406	0.000	-12.094	0.000	-12.094
• 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	-0.086	0.000			
• Other Adjustments	-0.320	0.000	-12.094	0.000	-12.094

Change Summary Explanation

Decrease in FY 2021 of \$12.094 million is due to the entirety of PE 0603444F, Maui Space Surveillance System (MSSS), and associated Projects being transferred to PE 0603034F, Persistent Knowledge, Awareness, & C2 Tech, as part of the Air Force RDT&E BA 03 PE consolidation to realign technology areas to better support the National Defense Strategy, Air Force Future Operating Concept, and the Air Force S&T Strategy, April 2019.

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2019	FY 2020	FY 2021
---	----------------	----------------	----------------

Title: Operate and Upgrade Maui Space Surveillance System	10.268	11.878	0.000
Description: Operate and upgrade the Maui Space Surveillance System to support development, demonstration, and integration of ground-based optical space situational awareness technologies.			
FY 2020 Plans: Continue to maintain Maui Space Surveillance System (MSSS) facility and experimental equipment in a mission ready state. Perform needed upgrades and modernization to keep facilities and equipment in good working order and allow Maui Space Surveillance System to perform efficiently and reliably. Continue to operate Maui Space Surveillance System facility for development and demonstration of ground based optical space situational awareness (SSA) capabilities in conjunction with customer programs and an operational Space Situational Awareness mission. Continue to accept control of geosynchronous satellite imaging capability, collecting images as requested by mission partners. Begin transition of dynamic telescope system operations into Maui Space Surveillance System capability baseline.			
FY 2021 Plans:			

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2021 Air Force	Date: February 2020
--	----------------------------

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 3: Advanced Technology Development (ATD)</i>	R-1 Program Element (Number/Name) PE 0603444F / <i>Maui Space Surveillance System (MSSS)</i>
--	--

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2019	FY 2020	FY 2021
In FY 2021, this work is performed under the Operate and Upgrade Maui Space Surveillance System effort in PE 0603034F, Persistent Knowledge, Awareness, & C2 Tech, Project 634868, Maui Space Surveillance System.			
<i>FY 2020 to FY 2021 Increase/Decrease Statement:</i> FY 2021 decreased compared to FY 2020 by \$11.878 million. Funding decreased due to the transfer and realignment of this work to the Operate and Upgrade Maui Space Surveillance System effort in PE 0603034F, Persistent Knowledge, Awareness, & C2 Tech, Project 634868, Maui Space Surveillance System, as part of the Air Force RDT&E BA 03 PE consolidation.			
Accomplishments/Planned Programs Subtotals	10.268	11.878	0.000

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

N/A

Remarks

E. Acquisition Strategy

N/A