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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 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0804772F / <i>Training Developments</i>
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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	-	0.000	0.000	4.479	0.000	4.479	4.550	4.636	4.724	4.815	Continuing	Continuing
652400: <i>Training Developments</i>	-	0.000	0.000	4.479	0.000	4.479	4.550	4.636	4.724	4.815	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This program, BA 5, PE 0804772F, project 652400, Pilot Training Next (PTN) Development, is a new start.

A. Mission Description and Budget Item Justification

Pilot Training Next (PTN) offers a more effective approach to pilot training. New training technologies will be studied and validated. Results will be used by Air Education and Training Command to develop processes and procedures to increase pilot production, improve and streamline existing training programs, and to incorporate into other programs.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver PTN weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605831F.

Alignment to the NDS: PTN is part of a complete redesign of pilot training using cutting edge technology to provide a faster, more cost effective and more comprehensive training model to get the warfighter to the cockpit in half the time of the existing model.

Funding contained in this documentation directly aids Air Education and Training Command's flying training enterprise to continue its overall Future Years Defense Program pilot production increase starting in FY 2020, thus reducing the USAF Pilot Shortage.

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	
Previous President's Budget	0.000	0.000	0.000	0.000	0.000	
Current President's Budget	0.000	0.000	4.479	0.000	4.479	
Total Adjustments	0.000	0.000	4.479	0.000	4.479	
• 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	4.479	0.000	4.479	
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2019	FY 2020	FY 2021
Title: Pilot Training Next (PTN) Development				0.000	0.000	4.479
Description: Pilot Training Next currently utilizes eight (8) T-6B aircraft equipped with heads-up and advanced situational awareness displays. Mission computers were temporarily modified to enable Air-to-Air and Air-to-Ground simulated weapons delivery. Numerous Virtual Reality (VR) Immersive Training Devices (ITDs) are also being utilized in the training curriculum. The aircraft and VR ITDs enable proper assessment of advanced pilot training concepts, techniques, procedures, and capabilities, while also providing a flexible architecture that incorporates Live, Virtual, and Constructive (LVC) elements into undergraduate pilot training.						
Efforts will be focused on validating new LVC and VR ITD concepts to develop processes and procedures to increase pilot production, improve and streamline existing undergraduate pilot training programs.						
FY 2020 Plans: N/A						
FY 2021 Plans: Continue experimentation with the T-6B aircraft configured in the Textron BP2+ software package. Begin development and prototyping of T-6A avionics modifications as it relates to real-time data capture and advanced competency instruction within PTN. Further refine VR ITD capabilities.						
FY 2020 to FY 2021 Increase/Decrease Statement: FY21 New Start						
Accomplishments/Planned Programs Subtotals				0.000	0.000	4.479

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

N/A

Remarks

E. Acquisition Strategy

Program Office(s) will select their own acquisition strategies based on Air Education and Training Command's innovation unit (Detachment 24) requirements. The initial systems PTN is primarily focused on are small-scale avionics modifications to the T-6A aircraft and incorporating Virtual Reality Immersive Training Devices into the undergraduate pilot training curriculum.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Air Force **Date:** February 2020

Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0804772F / Training Developments	Project (Number/Name) 652400 / Training Developments
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Product Development (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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			
Pilot Training Next Contracts	Various	AFLCMC : TBD	-	-		-		3.129	Jun 2021	-		3.129	Continuing	Continuing	-
Subtotal			-	-		-		3.129		-		3.129	Continuing	Continuing	N/A

Test and Evaluation (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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			
Pilot Training Next Test Activities	TBD	TBD : TBD	-	-		-		0.150		-		0.150	Continuing	Continuing	-
Subtotal			-	-		-		0.150		-		0.150	Continuing	Continuing	N/A

Management Services (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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 Administrative Support	TBD	Not specified. : TBD	-	-		-		0.450	Jan 2021	-		0.450	Continuing	Continuing	-
Administrative and Advisory Services Support	TBD	Not specified. : TBD	-	-		-		0.650	Mar 2021	-		0.650	Continuing	Continuing	-
Government Travel	Various	Not specified. : TBD	-	-		-		0.100	Jan 2021	-		0.100	Continuing	Continuing	-
Subtotal			-	-		-		1.200		-		1.200	Continuing	Continuing	N/A

			Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-	0.000	4.479	-	4.479	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2021 Air Force **Date:** February 2020

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FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025			
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

<i>Pilot Training Next Studies</i>	
Pilot Training Next Systems Development	

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Exhibit R-4A, RDT&E Schedule Details: PB 2021 Air Force **Date:** February 2020

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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Pilot Training Next Studies</i>				
Pilot Training Next Systems Development	2	2021	4	2025