

# OSD RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

**February 2008**

**APPROPRIATION/ BUDGET ACTIVITY**  
**RDTE, Defense Wide BA 03**

**PE NUMBER AND TITLE**  
**0603665D8Z - Biometrics Science and Technology**

COST (\$ in Millions)	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
P665 Biometrics Science and Technology		10.113	10.579	11.194	11.981	12.182	15.054

**A. Mission Description and Budget Item Justification:** (U) In Oct 2006, the Deputy Secretary of Defense designated the Director for Defense Research and Engineering (DDR&E) as Principal Staff Assistant (PSA) for biometrics with the responsibility to fully address and exercise control over all facets of the Department's biometrics programs, initiatives, and technologies. Biometrics technologies have the unique potential to provide the Department with the capability to take away an adversary's anonymity; this program provides focused investment to fill current technology gaps.

(U) Biometrics technologies can be used to both verify an individual's claimed identity and, when combined with additional intelligence and/or forensic information, biometrics technologies can establish an unknown individual's identity, thus stripping away his anonymity. The biometrics science and technology program addresses the technology gaps that preclude our ability to quickly and accurately identify anonymous individuals who threaten our interests, in whatever domain they operate.

(U) This program develops a comprehensive biometrics science and technology plan and implements multiple projects to advance capability to identify anonymous individuals using individual biometrics.

<b><u>B. Program Change Summary</u></b>	FY 2007	FY 2008	FY 2009
Previous President's Budget (FY 2008)		8.000	10.600
Current BES/President's Budget (FY 2009)		10.113	10.579
Total Adjustments		2.113	-0.021
Congressional Program Reductions		-0.087	
Congressional Rescissions			
Congressional Increases		2.200	
Reprogrammings			
SBIR/STTR Transfer			
Other			-0.021

**C. Other Program Funding Summary** Not applicable for this item.

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**D. Acquisition Strategy** Not applicable for this item.

**E. Performance Metrics:** Not Applicable.

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**February 2008**

<b>APPROPRIATION/ BUDGET ACTIVITY</b> <b>RDTE, Defense Wide BA 03</b>		<b>PE NUMBER AND TITLE</b> <b>0603665D8Z - Biometrics Science and Technology</b>					<b>PROJECT</b> <b>P665</b>	
COST (\$ in Millions)	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	
P665 Biometrics Science and Technology		10.113	10.579	11.194	11.981	12.182	15.054	

**A. Mission Description and Budget Item Justification:** (U) This program will develop the technology that will improve the quality of biometrics derived information provided to the operational forces for the purpose of identifying and classifying anonymous individuals. It will enable execution of a DoD and interagency coordinated biometrics science and technology plan that supports technology transition to acquisition programs in FY 2010 and out-years.

(U) Elements of the program include: develop a comprehensive science and technology plan to include a corresponding road-map that supports future capabilities as required by an on-going biometrics capability based assessment; improve the quality of biometrics information collected through the development of higher quality, more secure and stand-off multi-modal sensors; develop next generation, non-proprietary algorithms for rapid and accurate multi-modal matching; improve government/industry/international standards to facilitate biometric data sharing; develop and improve biometrics enterprise architecture to enable seamless collection, transmission, storage, matching and analysis of biometric information; and develop biometrics forensic collection, processing and exploitation systems capable of operating in all tactical environments.

**B. Accomplishments/Planned Program:**

<b><u>Accomplishments/Planned Program Title:</u></b>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Develop a Comprehensive Science and Technology Plan		0.500	
Develop comprehensive science and technology (S&T) plan to include corresponding road-map that supports future capabilities as required by on-going biometrics capability based assessment.			
FY 2008 Plan: Establish baseline of technology and develop near term S&T objectives. Draft Broad Agency Announcement soliciting proposals, convene review and selection panels. Draft comprehensive S&T plan and roadmap.			

<b><u>Accomplishments/Planned Program Title:</u></b>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Improve Quality of Biometrics Information Collected		2.000	2.200
Improve quality of biometrics information collected through development of higher quality, more secure and stand-off multi-modal sensors.			
FY 2008/2009 Plans: Develop innovative means to capture fingerprint, face and iris images in all conditions. Investigate ultrasonic and holographic technologies for fingerprint capture and technologies such as infrared laser and inverse SAR/LIDAR to enhance video/camera images to enable stand-off, covert and overt detection and identification or iris and facial images.			

<b><u>Accomplishments/Planned Program Title:</u></b>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>

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<b>RDTE, Defense Wide BA 03</b>	<b>0603665D8Z - Biometrics Science and Technology</b>	<b>P665</b>	
Develop Algorithms		2.000	2.200
Develop next generation, non-proprietary algorithms for rapid and accurate multi-modal matching.			
FY 2008/2009 Plans: Currently available biometric matching algorithms were developed primarily for commercial purposes and lack the scalability and multimodal capabilities required for growing DOD applications. Additionally, the available algorithms are propriety, limiting DOD options for fielding the most effective hardware and software combinations. Efforts will focus on non-proprietary matching algorithms for iris and facial images.			
<b><u>Accomplishments/Planned Program Title:</u></b>	<b><u>FY 2007</u></b>	<b><u>FY 2008</u></b>	<b><u>FY 2009</u></b>
Improve Standards		2.000	2.200
Improve government/industry/international standards to facilitate biometric data sharing.			
FY 2008/2009 Plans: Standards development for biometric use in support of identity management is still in early stages. Project will focus on standards for those modalities not adequately covered and to ensure DOD acceptable standards are accepted by commercial, DOD, interagency and international bodies.			
<b><u>Accomplishments/Planned Program Title:</u></b>	<b><u>FY 2007</u></b>	<b><u>FY 2008</u></b>	<b><u>FY 2009</u></b>
Develop and Improve Biometrics Enterprise Architecture		2.000	2.118
Develop and improve biometrics enterprise architecture to enable seamless collection, transmission, storage, matching and analysis of biometric information.			
FY 2008/2009 Plans: Investigate scalable biometric data and network architectures to ensure biometrics compatibility with the target Global information Grid (GIG)			
<b><u>Accomplishments/Planned Program Title:</u></b>	<b><u>FY 2007</u></b>	<b><u>FY 2008</u></b>	<b><u>FY 2009</u></b>
Develop Biometrics Forensic Systems		1.613	1.861
Develop biometrics forensic collection, processing and exploitation systems capable of operating in all tactical environments.			
FY 2008/2009 Plans: Investigate technologies such as mass spectrometry to improve latent fingerprint collection, miniaturize and harden for field use DNA collection, processing and sequencing capabilities, and establish capabilities to exploit forensic information derived from weapons, evidence and human identifiers. Develop interoperable and modular forensics databases and associate training for biometrics users.			
<b><u>C. Other Program Funding Summary</u></b> Not applicable for this item.			

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**D. Acquisition Strategy** Not applicable for this item.

**E. Major Performers** Not applicable for this item.