



# R & E CRITICAL TECHNOLOGIES PANEL

MAYNARD HOLLIDAY, DEPUTY CHIEF TECHNOLOGY OFFICER FOR  
CRITICAL TECHNOLOGIES (DCTO(CT))

**MARCH 2023**

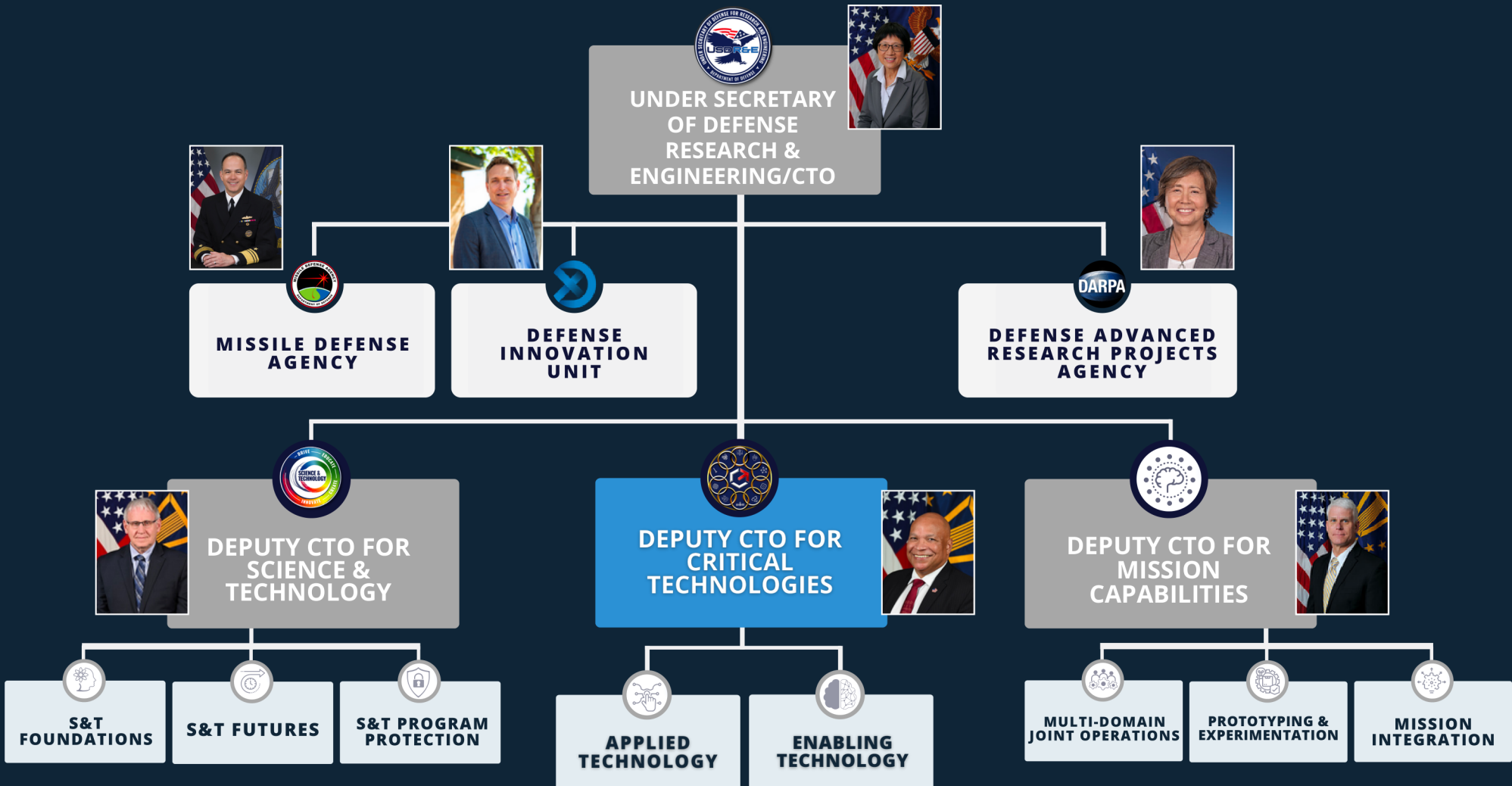
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# OUSD(R&E) ORGANIZATIONAL STRUCTURE



THE OFFICE OF THE DEPUTY CHIEF TECHNOLOGY OFFICER FOR CRITICAL TECHNOLOGIES





# CRITICAL TECHNOLOGY AREAS

THE OFFICE OF THE DEPUTY CHIEF TECHNOLOGY OFFICER FOR CRITICAL TECHNOLOGIES

The creation of the Office of the Deputy CTO for Critical Technologies was informed by the 2022 and 2019 National Defense Strategies, which initially established the previous modernization priority areas. Expanding on the original priorities, there are now 14 critical technology areas that are vital to maintaining the United States' national security grouped into three categories.

## Seed Areas of Emerging Opportunity



**Advanced Materials**



**Biotechnology**



**FutureG**



**Quantum Science**

**These CTAs are now aligned under the Deputy CTO for Science & Technology**

## Effective Adoption Areas



**Advanced Computing & Software**



**Human-Machine Interfaces**



**Integrated Network Systems-of-Systems**



**Microelectronics**



**Renewable Energy Generation & Storage**



**Space Technology**



**Trusted AI & Autonomy**

## Defense-Specific Areas



**Directed Energy**



**Hypersonics**



**Integrated Sensing & Cyber**



# CRITICAL TECHNOLOGY LEADERSHIP



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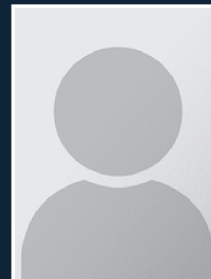
**DCTO(CT)  
MR. HOLLIDAY**



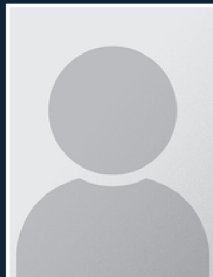
**PRINCIPAL DEPUTY  
TBD**



**APPLIED TECH DIR.  
DR. KRAPELS**



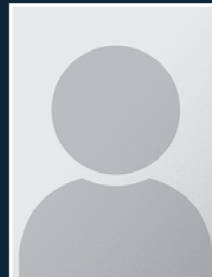
**ENABLING TECH DIR.  
TBD**



**PD AD. COMPUTING  
TBD**



**PD DE  
DR. PETERKIN**



**PD HUM-MACH INT  
TBD**



**PD HYPERSONICS  
MR. WHITE**



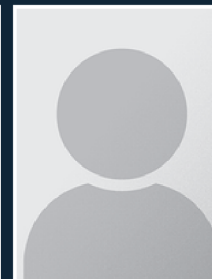
**A/PD INSS  
COL WATKINS**



**PD IS & CYBER  
MR. HARR**



**PD ME  
DR. SHENOY**



**PD REN. ENERGY  
TBD**



**PD SPACE TECH  
DR. MILLARD**



**PD TRUSTED AI & AUTONOMY  
DR. SABLON**





# DOD RESEARCH AND ENGINEERING ENTERPRISE

CREATING THE TECHNOLOGIES OF THE FUTURE FIGHT



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