



SECRETARY OF DEFENSE
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WASHINGTON, DC 20301-1000

MAR 12 2019

MEMORANDUM FOR CHIEF MANAGEMENT OFFICER OF THE DEPARTMENT OF
DEFENSE

SECRETARIES OF THE MILITARY DEPARTMENTS
CHAIRMAN OF THE JOINT CHIEFS OF STAFF
UNDER SECRETARIES OF DEFENSE
CHIEF OF THE NATIONAL GUARD BUREAU
GENERAL COUNSEL OF THE DEPARTMENT OF DEFENSE
DIRECTOR OF COST ASSESSMENT AND PROGRAM
EVALUATION
INSPECTOR GENERAL OF THE DEPARTMENT OF DEFENSE
DIRECTOR OF OPERATIONAL TEST AND EVALUATION
CHIEF INFORMATION OFFICER OF THE DEPARTMENT OF
DEFENSE
ASSISITANT SECRETARY OF DEFENSE FOR LEGISLATIVE
AFFAIRS
ASSISTANT TO THE SECRETARY OF DEFENSE FOR PUBLIC
AFFAIRS
DIRECTOR OF NET ASSESSMENT
DIRECTORS OF THE DEFENSE AGENCIES
DIRECTORS OF THE DOD FIELD ACTIVITIES

SUBJECT: Establishment of the Space Development Agency

Ensuring continued U.S. leadership in an era of renewed great power competition requires lethal, resilient, threat-driven, and affordable military space capabilities. A national security space architecture that provides the persistent, resilient, global, low-latency surveillance needed to deter or, if deterrence fails, defeat adversary action is a prerequisite to maintaining our long-term competitive advantage. We cannot achieve these goals, and we cannot match the pace our adversaries are setting, if we remain bound by legacy methods and culture. Therefore, effective immediately, I establish the Space Development Agency (SDA) as a separate Defense Agency pursuant to title 10, U.S.C., sections 113, 191, and 192, under the authority, direction, and control of the Under Secretary of Defense for Research and Engineering (USD(R&E)). The attachment provides full rationale for the establishment of the SDA.

To implement this establishment, I direct the following actions:

- Mission. The SDA will define and monitor the Department's future threat-driven space architecture and will accelerate the development and fielding of new military space capabilities necessary to ensure our



OSD002024-19/CMD002504-19

technological and military advantage in space for national defense.

- Scope.

- The SDA will be responsible for overall programmatic policy development and execution for next-generation military space capabilities, except those funded in the Military Intelligence Program (MIP).
- The SDA will unify and integrate the development of space capabilities, except those funded in the MIP, across the Department to achieve the DoD space vision and reduce overlap and inefficiency.
- To expand our space warfighting capability and foster growth in the U.S. space industrial base, the SDA will incorporate enhanced government-commercial relationships and international collaboration with key allies and partners, leveraging commercial and allied space technology where practical, in coordination with the Under Secretary of Defense for Policy.
- Interaction and involvement with the Joint Staff, Combatant Commands and the intelligence community will be integral to SDA success. The SDA will collaborate with the joint warfighter in the development of capabilities to address operational requirements.
- The SDA will coordinate with the Military Departments and Services, other DoD Components including relevant Defense Agencies, the Under Secretary of Defense for Acquisition and Sustainment, and other OSD Principal Staff Assistants (PSAs) to develop processes and plans to agree on capability specifications and enable SDA developed and fielded capabilities to transition to Service-led operational programs, including procedures to obtain and socialize independent cost and risk assessments.
- The SDA Director:
 - Serves as the head of an agency and contracting activity, and as deemed necessary to promote the SDA's emphasis on streamlined development:
 - Has the delegated authority to act as the SDA's Senior Procurement Executive, except for such actions that by terms of statute or any delegation of authority must be exercised by USD(A&S);
 - Is hereby designated the Component Acquisition Executive (CAE) for purposes of regulations and procedures providing for a CAE, including the exercise of Middle Tier Acquisition authority pursuant to USD(A&S) implementation of the

National Defense Authorization Act, 2016, Section 804 authority; and

- Has authority under 10 U.S.C. 2371, to enter into transactions other than contracts, cooperative agreements, and grants carrying out basic, applied, and advanced research projects as well as certain prototype projects and activities authorized by 10 U.S.C. 2371b.
- Will exercise the powers vested in the Secretary of Defense by sections 301, 302(b), 3101, and 5107 of title 5, U.S.C., on the employment, direction, and general administration of SDA civilian personnel.
- Will exercise available special hiring authorities for civilian employees, including direct hire via limited-term appointments for scientific and technical personnel appointment of highly qualified experts (HQEs), and non-competitive short-term hires (up to 18 months);
- Exercise approval authority over assignment of military personnel selected for duty at the SDA, rate such personnel, and approve their rating chains.
- Is designated as a Top Secret Original Classification Authority, in accordance with Executive Order 13526; and
- Exercise original classification authority up to Top Secret level, foreign disclosure authority, and public release clearance authority over information and activities of the SDA's architecture and constituent programs and projects; (however, the DoD Special Access Program Control Office will continue to coordinate DoD participation in special activities).
- Leadership. A Senior Executive Service, Tier 3, Director, reporting to USD(R&E), will lead the SDA. The first Director of SDA will be Dr. Fred G. Kennedy, who will be reassigned from his current position as the Director of the Tactical Technology Office at the Defense Advanced Research Projects Agency.
- Resources for SDA will be allocated using the normal Planning, Programming, Budgeting, and Execution process, including:
 - As part of the Fiscal Year (FY) 2020 Program and Budget Review, the Department has programmed for SDA operations in

the Operations & Maintenance Defense-wide account. This account identifies resources to staff the SDA. Funding for the initial set of next-generation military space capabilities also is programmed as Defense-wide. These resources, currently aligned under the Office of the USD(R&E) in the FY 2020 Budget, will be executed by the SDA.

- The USD(R&E) will work with the Under Secretary of Defense (Comptroller)/DoD Chief Financial Officer to provide fiscal oversight and make determinations, as required, to effect realignment of FY 2019 and FY 2020 non-MIP resources. The USD(R&E) will provide any FY 2019 required amounts with justification narratives for reprogramming.
- The USD(R&E) will be the OSD PSA representing SDA for FY 2021 and beyond until SDA is transferred to another organization (i.e., the U.S. Space Force). As PSA, the USD(R&E) is responsible for ensuring the development and submission of budget data supporting exhibits and other required materials for SDA consistent with current OSD CAPE and USD(C) guidance. The recommendations of the recent SDA Study conducted by the USD(R&E) will inform the budget data submissions.
- The DCAPE will work with USD(R&E) and the Military Departments to identify the lowest-risk approach to attain the personnel savings described in my certification to Congress and include these offsets in programming guidance issued for the FY 2021 DoD budget program review such that the Department's budget decision documents and resultant submission to the Office of Management and Budget obtains clearly identifiable efficiencies that are sustainable across the Future Years Defense Program.
- Administrative Actions. The USD(R&E) will collaborate with the Chief Management Officer and other appropriate OSD PSAs and DoD Component Heads as necessary, on required administrative actions to institutionalize SDA and to develop the SDA draft chartering DoD Directive for DoDI-wide coordination and approval by the Deputy Secretary of Defense within one year of signing this memo.

Through our concerted efforts, the Department will establish a uniquely positioned and empowered organization in the SDA. The SDA will unify and integrate efforts across the Department to define, develop and field the novel and innovative solutions necessary

to outpace advancing threats. The Department remains committed to transition the SDA to the U.S. Space Force once approved by Congress. Coordination of requirements and transition decisions will occur through the normal processes once SDA transfers to the U.S. Space Force. Until that time, the Department will evaluate additional consolidation of space development organization and management.

A handwritten signature in blue ink, reading "Patrick M. Shanahan". The signature is fluid and cursive, with a large initial "P" and "S".

Patrick M. Shanahan
Acting

Attachment:
As stated

Rationale for the Establishment of the Space Development Agency

What problem are we trying to solve?

Continuing actions by our near-peer competitors, China and Russia, suggest that they will attempt to deny, degrade or destroy U.S. space capabilities, and are designing strategic and tactical hypersonic weapons that are not easily detected, identified, or tracked by legacy National Security Space (NSS) systems. These systems lack the persistent, timely, global awareness required to handle these emerging threats, and are insufficiently resilient to counterspace threats. Our existing space acquisition system is not responding to this new threat environment at the pace now being set by our adversaries.

Why is an independent Space Development Agency essential to solving this problem?

The Department of Defense (DoD) requires a resilient, threat-driven space surveillance and communications architecture to provide the persistent low-latency global awareness, targeting, tracking, and fire control needed to deter, preempt, or respond to adversary action. The development and deployment of such an architecture requires an approach not bound by legacy methods or culture, led by an agency positioned and empowered to unify and integrate efforts across the Department to anticipate emerging threats and respond more rapidly than the adversary.

No existing organization can deliver the proposed transformational architecture at the scale necessary to support the breadth of Department requirements while complementing existing systems. Neither bound by past paradigms nor wedded to solution source, the Space Development Agency (SDA) will be well-positioned to harness best practices from government and industry to build a threat-driven architecture. The foundation of this architecture will be a massively proliferated sensor and communications transport layer in low Earth orbit (LEO). Proliferation of space assets and the collateral distribution of command and control renders any given satellite a less attractive target, while the system as a whole degrades gracefully under attack. Such an architecture is far less vulnerable to surprise attack and is thus inherently stabilizing.

A singular sensor and communications transport layer supporting all services and components and defined by common protocols and standards will, as information migrates to the new transport layer, reduce the over 150 types of wideband communications terminals by leveraging commercially-available radios and antennas wherever possible, and ultimately lowering DoD sustainment costs. Sensor data products (e.g., infrared, visible, and radio frequency-derived information such as an alternate positioning, navigation, and timing information) would be pushed to all validated joint, inter-agency and allied users regardless of location.

Further, the space-based transport layer will allow the consolidation of the DoD's numerous battle management, command, control, and communications (BMC3) networks. Today's BMC3 networks lack interoperability, increasing cost and reducing effectiveness. DoD presently operates or is developing at least eleven different BMC3 systems. The DoD-wide purview of the SDA will allow it to develop and deploy a node-agnostic approach having ubiquitous interface standards, analogous to the Universal Command and Control Interface (UCI) promulgated by the Air Force's Rapid Capabilities Office (RCO) for unmanned aerial systems.

Ultimately, unifying the Department's space sensor, communications, position, navigation, timing, and command and control architectures with a cross-domain, artificial intelligence-enabled network will provide the NSS enterprise with the resilience necessary to deter a peer adversary, or to prevail in conflict with an enemy that will not be deterred.