How to Build the United States Space Academy

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President Donald Trump signs the presidential action establishing a commission to design a United States Space Academy. Courtesy of the White House.

President Donald Trump's August 28 presidential action directs a commission to recommend the governance, academic and leadership curriculum, experiential training, graduate service obligations, applicant prerequisites, permanent location, partnerships, legislative needs and implementation strategy for a NASA-led United States Space Academy. The executive order describes the Academy as combining rigorous technical education with leadership development and a commitment to public service. A valuable question remains, how can one Academy connect the military, civil, and commercial talent pipelines required for maintaining American spacepower?

In answering that question, the commission should build on institutions the United States already does well. The nation has excellent aerospace engineering, space policy and space-focused business degree programs, while its military service academies provide proven models for developing technically capable leaders through disciplined public-service education. The United States should create a Space Academy that provides a common, unifying experience for the professional workforce required for American spacepower.

A good historic model is how Texas A&M University was first managed after it was opened to include civilian students. Its Corps of Cadets operates within a comprehensive university, allowing cadets and civilian students to share academic programs while pursuing different career

paths. Some cadets commission through Army, Air Force, Navy or Marine Corps ROTC. Others complete the Corps leadership program and enter civilian careers. At Texas A&M's Galveston campus, the Maritime Academy combines academic study, a regimented cadet experience, professional licensing and several commissioning options.

A second model is the United States Merchant Marine Academy. The USMMA prepares graduates for a strategic industry that is civilian in peacetime but indispensable to national defense. Graduates may enter active military service, but many instead work in the maritime industry while holding reserve commissions. Its service obligation therefore links a federally funded professional education to both national readiness and the commercial industry, giving graduates flexibility while preserving a durable commitment to public service.

Merging key features of the Texas A&M and USMMA models offers a strong approach for the Space Academy to deliver on the presidential mandate to develop a "professional corps of civically grounded leaders prepared to advance American interests within the space domain." Texas A&M supplies the institutional architecture: military and civilian students learning within a common university. The USMMA supplies a service model that connects federal education, opportunities for private sector employment and reserve or active-duty service. A U.S. Space Academy could combine these ideas into one institution with a common academic curriculum, shared facilities and a commitment to public service, organized around two distinct schools: a School of Military Space and a School of Civil Space.

Within that structure, the School of Military Space would prepare future active duty and reserve officers for the national security space community. Its students would live in a cadet environment, complete military instruction and physical training, and pursue technical or policy degrees alongside leadership education. The Space Force would be the principal commissioning partner, but the school should also support space-related career paths in the Army, Navy, Marine Corps and Air Force, subject to each service's accession requirements and personnel needs.

The USMMA-style service model affords active and reserve options and is particularly well suited to a space sector in which military missions and commercial operations increasingly overlap. A graduate might work for a launch provider, satellite operator, spacecraft manufacturer or space infrastructure company while serving as a reserve officer in a military space specialty. That arrangement would give the Armed Forces access to people who work every day in a commercial sector that is producing rapidly changing technologies. It would also give industry professionals a working understanding of military missions, planning and national security requirements. Active-duty service should remain an option, and a student who wants to commission into the Space Force or another service's space community should have a clear pathway to do so. A commercial career paired with reserve service should also be treated as an equally serious form of contribution to national spacepower.



Cadets from the U.S. Air Force Academy Class of 2020 graduating and commissioning into the U.S. Space Force. (Courtesy of the U.S. Air Force).

The School of Civil Space would serve a complementary purpose: to prepare technical experts and engineers, management professionals, and leaders in policy, for civil service. Its graduates could enter the broad civil space ecosystem including NASA, the Department of Commerce, the Federal Aviation Administration, the Federal Communications Commission, the Department of State, the Department of Energy, the Department of Homeland Security, the Department of Transportation, and other agencies with responsibilities in space.

This school should maintain high standards of leadership, ethics, and discipline, but it does not need to mimic a military structure or military way of life. The duties of civilian government should drive the culture of this school, including tenets of stewardship of public resources, scientific integrity, ability to work across institutions and competence in enforcing regulations and standards. Civil service graduates should also incur an obligation for service. A federally funded education reasonably warrants several years in qualifying federal civilian employment. The government already struggles to recruit and retain people who combine technical knowledge with an understanding of policy, budgets, and administration. The Academy could create a deliberate pipeline into positions that are essential to the space enterprise but difficult to fill through ordinary hiring.

Although their professional pathways would differ, the two schools should remain connected. Students should take a shared core course structure that covers a range of topics needed to

navigate the space sector. Military and civilian students should work together throughout their programs so that they learn firsthand where military, civil and commercial responsibilities overlap. The point of this design is not to erase the differences among these missions; it is to ensure that future professionals understand how their decisions affect the rest of the space enterprise.

The Academy should also serve more than four-year students. The American space economy depends on software developers, assemblers and other technical occupations as well as scientists and engineers. Because of these gaps, the civil school should include certificate programs, and apprenticeships for trades that intersect work in the space sector. The military school could offer comparable technical pathways where they align with service requirements. A spacecraft technician who can integrate flight hardware is no less important to national spacepower than the engineer who designed it.

Both schools should include an extended period of experiential education. The Merchant Marine Academy's Sea Year works because students learn their profession aboard operating ships. Texas A&M's maritime cadets likewise complete training and commercial cruises. A Space Academy should establish a Space Year built from rotations across the national space enterprise.

Military school cadets might rotate through Space Force units, joint organizations, launch ranges and commercial firms that support national security missions. Civil service students might work at NASA centers, national laboratories, spaceports or other government agencies. Together, these rotations would operationalize the Academy's blended model rather than force a choice between a military academy and a civilian university. The institution could preserve distinct military and civil professional cultures while giving both groups sustained exposure to the commercial sector and to one another.

The United States needs an Academy that recognizes military service, civil service and commercial careers as distinct contributions to the same national spacepower. A School of Military Space and a School of Civil Space would give those missions their own professional homes while ensuring that their graduates learn to work together.

This is the Space Academy we need as America enters the new space age.

About the Author

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