Topic

Provide input on how a National Spaceport Authority covering the Eastern and Western ranges should be organized to protect public safety and benefit the commercial space transportation industry.

Discussion

Although the concept of an Independent Spaceport Authority has been evolving since the 1990s, the Air Force (now Space Force) formally began a process to investigate a better way to operate a spaceport in 2017. The effort determined that commercial launch technology and operations have so matured that options are now available which assure that the federal government can execute its national security and exploration missions through empowering the growth of commercial space enterprises at those spaceports. The Space Force also recognizes that the management and operation of infrastructure and provision of services for spaceports dominated by commercial operations is not a core mission of the military. The federal government does not manage any airport or seaport where the bulk of the activity is commercial.

The outcome of that effort is a proposed National Spaceport Development Corporation (“NSDC”)\(^1\). It is a bold concept designed to stimulate discourse among stakeholders to attain a more optimized spaceport governance model. The plan suggests that the next step is convening an Interagency Planning Group to develop an action plan for implementation of such an Authority, but that would limit the input to only federal agencies. **COMSTAC suggests finding an appropriate means to invite states, industry, and other key stakeholders that have a vested interest in the outcome to shape the best solution for the nation.** The proposed National Spaceport Authority concept represents a starting point, but more work will be required to achieve the ideal structure needed to guarantee continued US leadership across the full space enterprise.

The NSDC concept proposes to simplify the existing multi-layer governance structure for operations at the Florida launch sites by merging NASA’s Kennedy Space Center and the Cape Canaveral Space Force Base, known collectively as the Cape Canaveral Spaceport (“the Cape”). This is a positive development toward unleashing the innovation and investment that will allow America to compete in the complex global military and economic battlespace. At present, there are 2 landlords over multiple launch sites. Having one landlord for commercial operators is preferable to having two. Today, launch operators require NASA-controlled commodities to launch rockets and Space Force-controlled land and safety expertise. Operationally for the commercial market, it would be better to have a single uniform jurisdiction.

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\(^{1}\) Aerospace Corporation “A National Spaceport Strategy” August 2020
The NSDC concept also envisions one entity having jurisdiction over the Cape and Vandenberg Air Force Base (VAFB). That would further complicate the management of both as each will have unique interests to address. Both will require the participation of the National Park Service with its own distinct jurisdictions as a part of both spaceport properties. The Cape will need to incorporate environmental interest associated with the Fish & Wildlife Service, whereas Vandenberg will have Native American interest to attend to. Other complications include the merging of existing labor agreements between NASA and Space Force at the Cape. These and other challenges will confront any effort at collaboration to get this done right.

A new spaceport entity will enable federal agencies to shed non-core mission responsibilities and focus their limited bandwidth and resources on their essential assignments of national security and exploration. An independent spaceport authority, like NSDC, would create an entity whose core mission and structure is specifically chartered to support the management of infrastructure, commodities, and services for commercial activities. However, with significant private capital seeking the opportunity to invest in the new global mode of transportation, a truly Independent Spaceport Authority could be chartered to better ensure those investments come to the US rather than competing spaceports in other countries. This investment will in turn, better empower the US industry to facilitate those same federal agencies in meeting their core missions with innovation, cost efficiencies, and sustainability.

Given the urgency and great potential for this construct, paired with potentially conflicting agendas, it will be critical to save this initiative from being mired in bureaucratic wrangling. To succeed, it will need real champions in the White House and on the Hill. It will be an imperative to identify them and to appropriately supply them with data and rationale.

The initial proposed spaceport model of the NSDC presumes the availability of considerable flexibility for financing the growth of spaceport infrastructure and the commercial sector. Key questions arise that require additional clarification to assure whatever model is selected has a comprehensive and varied toolkit to allow for investment that addresses the commercial market and government requirements. Challenging issues arrive when discussing funding. For example, if NSDC bonds are backed by the full Faith & Credit of the US Government (“USG”), does that preclude the use of bond financing for specific private use investment? That would debilitate the desired growth of the commercial sector.

Because the private capital markets have much more money than the USG to fund capital intensive infrastructure investments, **COMSTAC should advocate for a governance model that best provides access to those markets at all spaceports.** Notably, to enable access to those markets, spaceports will need to have sustainable business models with clear and acceptable investment risks. Additionally, by using the risk/reward metrics of the marketplace, those limited resources will be optimally allocated to meet demand, whether by government or private funding. This should result in being able to improve cost efficiencies and sustainability into the future for the broader interests of US leadership in space. An independent entity would qualify for USG grants and appropriations like most airports and seaports authorities.
Summation

With looming budget constraints that will require federal agencies to prioritize their true core missions, establishing a sustainable spaceport governance model like airports and seaport as more reliant on users than taxpayers is coming. Overcoming procedural and administrative challenges will provide the opportunity and the imperative to act, necessary to ensure US leadership in space.

The Innovation and Infrastructure Working Group (IIWG) proposes to the full COMSTAC the following key recommendation to FAA/AST:

- The AST should assume a key role in convening the Interagency Planning Group.
- Incorporate industry, states, and other critical stakeholders into the deliberations to establish efficiencies and ensure the best interests of the nation’s broader space enterprise.
- Establish a governance structure which enables access to the immense private capital markets as well as federal grant funding for critical infrastructure.
- Regardless of what governance model is selected, acknowledge that significant federal investment will be required for a transition period for the spaceports as it moves towards greater independence as a self-sustaining authority.

Other observations and possible suggestions

- DOD and NASA can be preferred customers, but without clear limits as to what “preferred” means and when preference can be exercised, the commercial sector will surely abandon these spaceports, as they have before. This would undermine a foundational principal dictated by General Raymond: “.....Our reliance on the success of the commercial space sector demands that we keep their activities resident on our ranges.” However, with technology improvements those legitimate delays are ever shorter.
- USDOT seems the most appropriate Department to house NSDC, but its employees are regulators, not operators. (Note the FAA turning over Reagan & Dulles to VA/DC airport authority in 1987 after decades of increasingly less than vigorous performance in the marketplace.)
- The effort to establish an entity that is formally chartered to support education and manufacturing is proactive and farsighted. More specific tasking is encouraged.
- Some Federal Corporations have been established as transitions to full privatization (CRS-RL30365). Is that a longer-term consideration? If so, what should be done to enable that eventuality?
- Address the ambiguity regarding environmental constraints and USDOT 4(f) implications.

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2 Aerospace Corporation "A National Spaceport Strategy" August 2020
3 ibid