

Topic Three – Office of Spaceports

Tasker: Recommend changes, if any, to the existing Space Transportation Infrastructure Matching (STIM) grants program. Define how this program, or a similar spaceport infrastructure funding mechanism, might work: eligibility criteria for grantees, qualified uses of funds, funding, and preferred funding sources.

The Innovation and Infrastructure Working Group (IIWG) recommends Congress to create a federal program for funding improvements at spaceports. Throughout US history, Congress has supported nearly every other form of transportation through federal funding for infrastructure improvements. We are currently witnessing a unique moment with the maturation of a new mode of transportation as space transportation costs continue to decrease while opportunities for access increase – all while driving a “normalization” of space as a mode of transportation. In order to match anticipated future demand for launch volume and variety, spaceport infrastructure is the next mode of transportation that requires assistance from designated federal funding. The United States has led the world in transportation infrastructure in the past and cannot risk falling behind other countries in space – countries that are actively working to fund and develop their own capabilities to attract launch providers who otherwise would choose US spaceports. Congress can lead on this issue and should move out on a program for improving spaceport infrastructure across the country.

Over the last decade, discussion of multiple different funding mechanisms for spaceport improvements has taken place. Some options include:

- Allowing spaceports to access Airport Improvement Program (AIP) funding
- Creating a separate spaceport-specific AIP-like program
- Renewing focus on the Space Transportation Infrastructure Matching (STIM) grants program
- Creating a new matching grants spaceport infrastructure improvement program administered through FAA AST’s Office of Spaceports
- Encouraging federal agencies (DOD and DOT, for example) to share the cost of improvements for spaceports that serve a variety of government and commercial customers

STIM was a good first effort to making federal funding available to non-federal spaceports. However, STIM is available subject to annual appropriations and didn’t enjoy continued stakeholder engagement with the Congress, meaning awards were only made to entities in FY 2010, FY 2011 and FY2012. Even in those years when awards were made, the program was funded at less than one-tenth of the authorized level of \$10 million per year. STIM was well-intentioned, but with its limited resources, it was only able to provide a very limited amount of funding per award. It also came with considerable overhead and accountability costs such that it was very difficult to successfully leverage the awarded amount for meaningful capital improvements in a very complicated and infrastructure-intensive endeavor.

After discussing the matter with industry and government stakeholders for years, as well as conducting background research of the early airport funding mechanisms, the IIWG believes a matching grants program is the best way to foster investment in our nation’s national space launch infrastructure. A matching grants program would also encourage state and local investment in capabilities they have

already been supporting, and perhaps drive new states/localities to engage in their own investments. The IIWG believes this is the best course of action because attempting to carve out even a small percentage of AIP funds for spaceports is a difficult political task. Further, attempting to structure a spaceport AIP-like fund for success would be challenging largely due to funding complications (the AIP pays out of a trust fund that is funded by a combination of taxes and fees on airport users). Even in the presence of an effective funding regime, it would be extremely challenging to reach a level sufficient to allow for payouts in the near term that would yield meaningful capital improvements at spaceports.

Given the immaturity of the overall space transportation and space travel industry, an aid program like the federal government's Federal Aid to Airports Program (FAAP) – used to support early airport development and funded directly from the Treasury's general fund (basically, via discretionary funding) – would likely be a more useful model to follow for spaceport improvements than how today's AIP supports modern air transportation. Therefore, the path of least resistance is likely through a renewed effort around federal discretionary funds appropriated by Congress for an improved spaceports improvement program – either an updated STIM program or a new program – particularly if the US wants to make resources available for improvements in the near term.

It makes sense for such a program to be run through the Office of Spaceports at FAA AST, which is the US government institutional knowledge base and authority on spaceports. The idea that such a program would be subject to the annual appropriations process is likely a necessary trade-off for the short term. It might even be the case for the foreseeable future, at least until there is enough activity across the different spaceports to generate funds sufficient to fund a spaceport-AIP like program that is both “self-funding” and able to provide enough funding per outlay for meaningful projects.

It makes sense for the new program to take the shape of a grant program, since that is how most infrastructure improvement programs are structured and the Department has many years of history executing and overseeing them. Some things that might be considered as “criteria” include:

- Priority for projects that are able to secure local and/or state investment as well – essentially, “matching grants”
- Grants should be made for capital improvements not operational expenses
- Level of existing launch activity is weighed positively in the award process

One additional general principle could be that such a regime not be presumptuous in stating, by inclusion or omission, what the correct number of spaceports might be for the U.S. – now or in the future – to meet our nation's launch needs. Finally, oversight and accountability responsibilities – though certainly required for any grant program – should be carefully considered and reduced, if possible, from those levied on STIM grants so recipients are better able to execute, rather than focus disproportionate time and resources on reporting requirements.