

## Infrastructure Working Group OFRs

**Observation:** The COMSTAC observes that some licensed launch/reentry sites have facilities within the site boundaries that are unrelated to preparing a launch or reentry vehicle for spaceflight. For example:

- Spaceports and airports coexist in some areas;
- Spaceports can conduct static fires; and
- Spaceports can include lodging facilities.

**Finding:** The COMSTAC finds that there is a need to determine how much regulatory authority FAA AST should have over facilities and operations within the boundaries of a launch or reentry site that are unrelated to preparing a launch or reentry vehicle for spaceflight.

**Recommendation:** The COMSTAC recommends that “necessary facilities” be defined as operational facilities necessary to prepare a launch or reentry vehicle for flight, perform the launch operation, and/or return a launch or reentry vehicle to a safe condition on the ground after landing.

**Recommendation:** The COMSTAC recommends that the FAA AST not have authority over any facilities that are not considered necessary facilities, and that the FAA AST’s jurisdiction over necessary facilities be limited to hazardous operations that warrant FAA AST’s regulatory oversight, as defined in the operator’s license(s) or permit(s).

## Safety Working Group OFRs

**Observation:** The COMSTAC observes that a Reportable Safety Events Task Group has been formed under the auspices of the ASTM Committee F47 on Commercial Spaceflight to work on an industry consensus standard for the voluntary sharing of reportable safety events and lessons learned.

**Finding:** The COMSTAC finds that the voluntary reporting of safety related events and lessons learned that do not meet the minimum criteria for the current mandatory reporting of mishaps, accidents and incidents threshold benefits safety.

**Finding:** The COMSTAC finds substantial value in FAA AST’s initiative to develop a Voluntary Safety Program (VSP), and welcomes collaboration with industry via COMSTAC and ASTM’s Committee F47 new Reportable Safety Events Task Group.

**Recommendation:** The COMSTAC recommends that AST and other FAA stakeholders join the Reportable Safety Events Task Group formed under the auspices of ASTM Committee F47 on Commercial Spaceflight.

**Finding:** The COMSTAC finds that industry remains committed and active in the development and adoption of voluntary consensus standards consistent with NTTAA and OMB A-119, and that industry favors them as:

- A means of compliance for FAA AST new and/or reformed regulations (for instance, regulatory reform, including launch and reentry licensing streamlining and new regulations, including licensing and certification of human spaceflight activities); and
- Enhancing safety tools for the involved (flight crew and participants) and uninvolved public.

**Finding:** The COMSTAC finds substantial value in the FAA AST’s presence at and participation in the development of industry voluntary consensus through Standards Developing Organizations (SDO’s) such as the ASTM Committee F47 on Commercial Spaceflight and its task groups.

**Finding:** The COMSTAC finds substantial benefit in the FAA development of an Acceptable Level of Risk (ALR) approach that harmonizes safety principles from both aviation and space industries.

#### Legal and Regulatory Working Group OFRs

**Observation:** The COMSTAC observes, through COMSTAC’s site visit to the FAA ATC Command Center and the FAA’s presentation to COMSTAC on Acceptable Level of Risk (“ALR”), that the FAA is putting in considerable effort to integrate space and aviation operations in the NAS (“airspace integration”), through projects such as ALR and SDI, among others.

**Observation:** The COMSTAC further observes that significant concerns among the space and aviation communities still exist regarding airspace integration, such as the funding and prioritization of these efforts within the FAA, continuing constraints on space and aviation operations around launch, booster recovery, and re-entry activities, and the spaceport licensing process.

**Finding:** The COMSTAC finds that, with expected increasing launch cadences and the development of new spaceports, it is an immediate priority for the FAA to streamline the process of airspace integration, in particular optimizing airspace closure during launch activities to ensure that space and aviation activities are fully supported.

**Finding:** The COMSTAC finds that securing a balance of equities among the space and aviation communities is a critical component of airspace integration.

**Recommendation:** The COMSTAC recommends that the FAA expedite its efforts to develop tools to optimize airspace integration, and adequately fund these efforts.

**Recommendation:** The COMSTAC recommends that the FAA streamline the spaceport licensing process to combine facility and operations approvals into a single process.

**Recommendation:** The COMSTAC recommends that AST provide a briefing to COMSTAC on Collaborative Decision Making (CDM).

## Competitiveness and Innovation Working Group OFRs

**Observation:** The COMSTAC observes that export controls have a dramatic impact on the international competitiveness and general health of the domestic commercial space transportation industry.

**Finding:** The COMSTAC finds great value in Space Policy Directive 2 and the National Space Council's focus on streamlining regulations generally and export licensing affecting commercial spaceflight activities specifically.

**Recommendation:** The COMSTAC recommends that during any intergovernmental discussions related to SPD-2 or export control reform generally, the DoT should advocate for establishing a mandatory and regular review of the United States Munitions List and Commerce Control List. This review should focus on ensuring that technologies which are widely available in the international marketplace should not be controlled, that the lists are "positive" (i.e., provide detailed descriptions), and that redundancies are eliminated.

**Observation:** The COMSTAC observes that export licenses are currently reviewed by a large array of Government Agencies and Departments and by multiple offices within those Government Agencies and Departments.

**Recommendation:** The COMSTAC recommends that during intergovernmental discussions, the DoT should advocate to the DoS and the DoC to limit the number of other Government Agencies and Departments that are required to review export licenses to only those with a direct, relevant involvement in the proposed activity. Moreover, the DoT should advocate for streamlining the export licensing process to limit the number of offices required to review a license within a Department or Agency.

**Observation:** The COMSTAC observes that insufficient staffing of offices responsible for export control licensing is already resulting in delays that are harming American competitiveness and innovation. In many instances, one or more of the Government Agencies and Departments that are asked to review licenses lack relevant experience and expertise.

**Recommendation:** The COMSTAC recommends that during interagency discussions, the DoT should advocate for the National Space Council, the DoS, the DoC, and other relevant Departments and Agencies to support the proper staffing and training of offices responsible for export licensing to ensure that licensing is done in a timely and effective manner.

**Observation:** The COMSTAC observes that non-traditional commercial space activities, such as private sector space stations, lunar rovers, satellite servicing, and asteroid mining, are quickly transitioning from concept to reality. Moreover, it is important for the U.S. aerospace sector and the American economy in general to succeed and lead in these activities.

**Observation:** The COMSTAC observes that Article VI of the Outer Space Treaty requires States Parties to bear international responsibility for the "authorization and continuing supervision" of activities conducted by non-governmental entities in outer space. Currently, no

single Federal Agency or Department has clear authority for fulfilling Article VI obligations for non-traditional commercial space activities.

**Finding:** The COMSTAC finds that uncertainty in regard to Article VI will hinder investment in and the execution of U.S. non-traditional commercial space activities, and could also lead to companies conducting “forum shopping” among various Agencies and Departments, or deciding to move their operations outside of the United States.

**Recommendation:** The COMSTAC recommends that during interagency discussions and communications with policymakers, the DoT should advocate for an expeditious and effective resolution of the Article VI issue. Specifically, the DoT should support a means of meeting Article VI obligations in a predictable, transparent, and efficient fashion that encourages rather than hinders investment in and the development of U.S. non-traditional commercial space activities.

**Recommendation:** The COMSTAC recommends that during interagency discussions, and communications with policymakers, the DoT should advocate for Article VI’s “continuing supervision” provision to be fully satisfied by a proviso within an approval letter requiring the applicant to update the relevant Federal Agency or Department if there is a substantive change to their proposed non-traditional commercial space activity that was described in the application.

**Recommendation:** The COMSTAC recommends that existing applications and licensing requests intended to address Article VI compliance received by the FAA AST or other Departments or Agencies should not be delayed due to the potential for procedural or administrative changes, and should be reviewed and acted upon in an expeditious fashion.