Commercial Space Transportation Advisory Committee (COMSTAC) Meeting Minutes for Monday, September 16, 2024

Time and Location

The meeting was held September 16, 2024, at 9:00 a.m. Eastern Time. It was held in-person at the Federal Aviation Administration (FAA) Headquarters, with virtual participants joining via Zoom for Government. The meeting was also streamed live on the FAA YouTube channel for the public.

Participants

FAA

Mr. Kelvin Coleman, Associate Administrator, AST

Mr. Michael O'Donnell, Deputy Associate Administrator, AST

Mr. Brian Verna, Designated Federal Officer (DFO)

Mr. Randy Repcheck, Deputy Director, Office of Strategic Management, AST

Dr. Minh Nguyen, Director, Office of Strategic Management, AST

Mr. Daniel Murray, Director, Office of Operational Safety, AST

Committee Members

Ms. Karina Drees, COMSTAC Chair, Former President, Commercial Spaceflight Federation

Mr. Mike French, COMSTAC Vice-Chair, Senior Advisor, Boston Consulting Group

Mr. Mat Dunn, Senior Director of Global Government Affairs, Space Exploration Technologies

Mr. John Elbon, Chief Operating Officer, United Launch Alliance

Mr. Dale Ketcham, Vice President of Government and External Relations, Space Florida

Ms. Kate Kronmiller, Vice President of Government Relations, Jacobs

Major General Ted Mercer, USAF (Ret), CEO and Executive Director, Virginia Commercial Space Flight Authority

Mr. Mike Moses, President of Space Missions and Safety, Virgin Galactic

Dr. George Nield, President, Commercial Space Technologies

Dr. Michelle Parker, Vice President and Chief Engineer for Space and Launch Engineering, Boeing

Ms. Melanie Preisser, Vice President of National Systems, York Space Systems

Ms. Caryn Schenewerk, Adjunct Professor, Georgetown University Law Center

Ms. Amanda Simpson, Founder and Chief Executive Officer, Third Segment LLC

Mr. Jay Skylus, Chief Executive Officer and Chief Engineer of the Aether Transport System, Aevum

Ms. Jolie Zoller, Head of Global Regulatory Affairs, Project Kuiper, Amazon

Ms. Ann Zulkosky, Vice President of Commercial Civil Space, Lockheed Martin

Welcome and Introductory Remarks

The DFO, Mr. Brian Verna, called the meeting to order at 9 a.m. Eastern Time and welcomed participants to the 79th COMSTAC meeting. After calling attention to the <u>Federal Register</u> notice that announced the meeting, the DFO then introduced the COMSTAC Chair, Ms. Karina Drees, who attended virtually. The COMSTAC Vice-Chair, Mr. Mike French acted as chair for the day, facilitating discussions and guiding the meeting. Ms. Drees expressed her gratitude for the hard work of the committee members and the support provided by the DFO over the past 18 to 24 months. Mr. French thanked everyone present, both in person and online, highlighting that this would be the last meeting for several committee members whose terms were concluding.

Mr. French acknowledged the committee's significant contributions to the FAA in shaping regulations and policies for the commercial space industry. He noted that, despite the challenges faced, the committee had made considerable strides in ensuring safe space transportation. The Vice-Chair then introduced Mr. Kelvin Coleman, the Associate Administrator for the FAA's Office of Commercial Space Transportation (AST).

Mr. Coleman thanked the members for attending and then discussed his testimony before the House Subcommittee on Space and Aeronautics the week prior. He mentioned that compliance was a topic that kept coming up in the conversation. Mr. Coleman noted that compliance with launch regulations can be complicated and time consuming, but the government uses flight safety analysis (FSA) standards that are based on 30 years of work. AST provides necessary transparency to comply but does not raise that bar beyond those standards. Mr. Coleman also corrected his remarks before the House, stating there were two occasions, not one, where AST has taken longer than the required 180 days to issue a Part 450 license after accepting an application.

Mr. Coleman noted that applications use logic and math, and therefore, ambiguous applications are not legally enforceable. Successful applications are complete, spell out the rationale for compliance methods, and base each method on acceptable engineering. Applications must be reviewed by those trained in flight safety analysis. To assist applicants in complying with FSA requirements, AST will soon be releasing an Advisory Circular (AC) on FSA rigor in the next few weeks (since the meeting, the FAA published this AC on September 20, 2024). AST has also released other ACs to provide clarity. Mr. Coleman noted that the pre-application period is intended to be an assist to industry, and that, without this period, many applications would result in a denial. Regulatory compliance should be on any company's critical path and the consultation period is driven by operators. The 180-day clock starts when AST accepts an application from an operator. On average it takes operators six to 18 months to submit a complete application, but we are working with applicants to reduce that time.

Mr. Coleman then discussed environmental reviews, stating that they are conducted for each application. The FAA also completes supplemental analysis for modifications to a license. For licenses under the legacy regulations, there has been, on average, one licensing modification for every three launches. The FAA also consults with the Fish and Wildlife Service under the Endangered Species Act. In addition, there are other laws to be considered to determine if additional environmental mitigations are required to approve applications.

Mr. Coleman noted that the organization had successfully hired 158 individuals, emphasizing that 60% of these staff members are dedicated specifically to licensing activities. He clarified that currently, there are nine analysts focused on flight safety, with plans to hire two more in the upcoming weeks, which would bring the total to 11. Additionally, he mentioned there are 11 analysts dedicated to system safety. One attendee raised a question about the overall composition of the team, noting that out of 158 employees in the organization, 22 are involved in analysis. They inquired whether there are plans for further growth in this area and whether there is a need for it. Mr. Coleman's response indicated a strong desire to expand the analysis team, pointing out that this was a significant reason behind their FY2025 funding request. Mr. Coleman highlighted the role of industry, academia, and government agencies in fostering this growth. He stressed the necessity of partnering with colleges and universities to create curricula that align with the needs of the aerospace sector. Mr. Coleman closed his remarks mentioning that AST would soon be kicking off the Aerospace Rulemaking Advisory Committee (SpARC) for Part 450 and expressed optimism that it will start this fall. AST has invited 27 industry representatives to join as members of the Part 450 SpARC.

Briefing on ASTM Committee F47 on Commercial Spaceflight

Andrew Nelson, chair of the ASTM (Aerospace Standards Management) F47 Commercial Space Flight Standard Committee, took the podium. He introduced the committee's mission and the nature of its work, which is fundamentally based on voluntary consensus standards. He highlighted the extensive history of ASTM, which has been operating for over 125 years and currently maintains about 148 active committees and over 13,000 published standards. The F47 committee, which was established in 2016 based on recommendations from the Commercial Spaceflight Federation and other industry partners, currently comprises around 120 members and nine subcommittees. They have published 11 standards to date, with an additional 10 close to publication. Meetings are held twice a year in person, and various task groups meet regularly to address ongoing issues. A significant concern raised during the meeting centered on the enforcement of these standards. One participant voiced skepticism about the effectiveness of voluntary standards, arguing that without enforcement mechanisms, there could be a tendency for industry participants to disregard them. This sentiment sparked a broader discussion about the cyclical nature of regulatory development. Several attendees noted that the establishment of standards is often a precursor to regulatory measures, suggesting that demonstrating industry readiness through voluntary compliance can lead to more formal regulations in the future.

During the meeting, concerns were prominently raised about the implementation of Part 450, the regulatory framework governing commercial space flight operations. They specifically highlighted that despite progress being made, without the FAA taking a decisive regulatory stance, the entire endeavor could be rendered futile. They argued that if other federal agencies, such as the Department of Defense (DoD) or NASA, imposed their own regulatory rules that conflicted with Part 450, it would create a confusing regulatory environment for industry stakeholders. Mr. Mat Dunn emphasized the importance of industry operators adopting these consensus standards as a regular part of their operations. "These standards serve as qualified means of compliance," he said, pointing out that they should not be seen as competing with regulatory frameworks but rather as complementary to them.

Task #1 Commercial Space Transportation Research Alliance

COMSTAC was tasked to research options on Commercial Space Transportation standing up a Research Alliance made up of government, industry and academia to foster research and development. This would be a follow-up to the Commercial Space Transportation Center of Excellence and provide a recommended path to implementation that includes potential funding, structure and governance. This task was originally briefed to the members at the April 2024 meeting, but the Research & Development (R&D) working group was asked by the committee to revise its report and recommendations before putting them to a vote. The updated report and recommendations were prepared for the committee by both the R&D and Innovation & Infrastructure (I&I) working groups.

This task was briefed by Dr. George Nield, President of Commercial Space Technologies and Chair of the I&I working group. Dr. Nield opened his briefing with a background on the Center of Excellence (COE). The COE ended in 2022 as planned, but no research organization was created to replace it to allow academia to engage in commercial space transportation research. The COE was purposefully designed to cover a broad range of research topics, including operations, vehicles, social sciences, and demand projections. Dr. Nield reviewed the original recommendation and noted that the COMSTAC members had questions concerning what was being proposed by the R&D working group.

Findings:

• The FAA established the Center for Excellence for Commercial Space Transportation in 2010. It involved 10 member universities and 36 industry partners. It was funded at approximately \$1M per year for 10 years, with requirements for a 1:1 match for all federal dollars spent. It ended in 2022, after reaching the end of its planned lifetime, but with no replacement in place to allow academia to engage in commercial space transportation research.

Observations:

- Given the rapid pace of activity, there is an urgent need (and opportunity) for government, industry and academia to collaborate in performing research through a Commercial Spaceflight Research Alliance.
- A nonprofit organization called the Human Research Program for Civilian Spaceflight (HRP-C) has now been established in order to meet that need.

Dr. Nield then briefed the members on the HRP-C. Dr. Nield provided the members with the working group's two recommendations. Both recommendations specifically called out the HRP-C to receive engagement and funding from AST. The members were not comfortable with calling out a specific research organization in the recommendations. After some discussion, the members agreed to take a vote on the following revised recommendations for Task 1:

Recommendations:

• The Office of Commercial Space Transportation should engage with research organizations focused on commercial space transportation on a regular basis, to share research needs and priorities and to receive status updates on research accomplishments.

To ensure project oversight and appropriate involvement, an FAA representative could serve or participate on an ad hoc basis on such a research organization.

The members approved this recommendation as amended. Five members voted no: Mr. Mat Dunn, Maj. Gen. Ted Mercer, Ms. Caryn Schenewerk, Ms. Kate Kronmiller, and Dr. Michelle Parker.

• The Secretary of Transportation should establish a budget and mechanisms to competitively award research grants to address priorities in the area of commercial space transportation, while ensuring that the Office of Commercial Space Transportation has the resources needed for both licensing and safety inspections.

The members approved this recommendation as amended. One member voted no: Mr. Mat Dunn.

Task #2: Strategic Views on Improving AST Workforce Pipelines and Maintaining Employees' Technical Knowledge Base

COMSTAC was tasked to provide the FAA with outside-the-box ideas that would strengthen AST's workforce pipelines. As technology continues to evolve, COMSTAC was asked to recommend what the FAA can do to help maintain employee familiarization and currency with the innovative commercial space transportation industry.

Ms. Drees briefed the attendees on the findings for Task #2, making several key recommendations aimed at enhancing AST's workforce pipeline, crucial for supporting the growing commercial space industry. Recognizing the increasing complexity and frequency of space launches, COMSTAC emphasized the need for a highly skilled and knowledgeable workforce within AST.

Findings:

- The commercial space launch cadence continues to increase, and the Federal government plays an increasingly important role in ensuring that regulatory processes support the pace of industry.
- Effective regulatory practices are dependent on a strong, capable workforce.
- COMSTAC was tasked with providing recommendations on strengthening AST's hiring practices as well as maintaining current employees' technical knowledge by providing outside-the-box ideas on how to strengthen AST's workforce pipelines.

Dr. Minh Nguyen, AST's Director for the Office of Strategic Management, addressed the challenges involved in FAA/AST's hiring process. He noted that while the FAA has the advantage of direct hiring authorities for certain positions, recruiting the right talent and navigating the timing of budget approvals remain critical hurdles. He also touched on the need for adequate office space to accommodate the growing workforce, as the FAA seeks to potentially secure additional physical locations to facilitate its expansion. Mr. Coleman noted that AST had successfully met its hiring targets, with a focus on filling 158 positions ahead of schedule. This achievement was buoyed by a favorable budget environment, including support

from Congress for additional staffing resources. He noted that AST anticipates hiring 40 to 45 additional staff in the coming fiscal year, emphasizing a priority on licensing activities.

Observations:

- COMSTAC members have experienced the importance of having knowledgeable, competent staff within FAA/AST.
- Growing and retaining the workforce is essential to maintaining sound licensing practices.
- AST employees must meet with key people at all levels of the commercial space industry.
- Commercial space launch and reentry operators and commercial spaceports often have low visibility into the AST environment.

Recommendations:

- More direct AST employee engagement with industry.
 - Develop an "Education with Industry" rotation program that would allow selected individuals to be assigned to work for an aerospace company for several months.
 - Provide a travel budget for employees to travel to and conduct more on-site meetings with operators.
 - Send key employees to lunch and learn events with operators and industry associations.
- Enhance employee engagement within AST.
 - Develop employee rotation programs for new employees that would allow them to work in several different parts of AST after being hired.
 - Empower employees to be involved in decisions.
 - Create a more inclusive atmosphere where employees feel they are part of the solution to regulatory concerns.
 - Establish on-boarding / annual training programs to assist new AST employees with understanding the rationale and intent of licensing.
 - Inspire employees to have more influence over their career paths.
 - Support AST employee engagement with research activities, such as the recommended imitative for a Commercial Spaceflight Research Alliance.
- Increase involvement with conferences to improve employees' knowledge base and inspire networking.
 - AST should be sending employees to commercial space conferences, such as AIAA Ascend, Space Symposium and SpaceCom.
 - Encourage AST employees to become members of and regularly participate in professional societies, such as the AIAA.
- Improve partnerships with universities, associations and fellowship programs.
 - Establish formal relationships with trusted universities to provide a guaranteed number of open positions and expedited hiring authorities.
 - Significantly increase the internship program as a way of starting the recruiting process before graduation.
 - Partner with industry groups or associations to support activities for aerospace students.

- Partner with local universities to offer on-site technical and other courses or degree programs.
- Commit to regularly sending employees to the International Space University summer session programs.

The members discussed the observations and recommendations, highlighting the success of internship programs but suggesting that they could be expanded into co-op programs. Mr. Coleman acknowledged this suggestion and revealed that AST was already piloting a co-op program, with plans to influence university curricula to better align with industry needs. COMSTAC also brought up the possibility of student loan debt forgiveness in exchange for a commitment to work with the FAA for a specified period. This proposal garnered interest, with discussions about the feasibility of implementing such a program within existing budgetary constraints. Recommendations continued to flow, including the idea of establishing employee rotation programs that would allow new hires to gain experience across different areas within AST. Maj. Gen. Mercer advocated for the extension of rotation programs to include experiences at spaceports. He suggested that this could help deepen the understanding of operational challenges these facilities face, which could enhance AST's licensing process. The concept of an internal Wiki was proposed to serve as a repository of information that employees could access freely. COMSTAC asserted this resource could help demystify regulatory processes and foster a culture of continuous learning, addressing the imposter syndrome often felt by new employees. As the dialogue progressed, there were concerns about resource allocation within the government and the potential need for legislative changes to enhance the FAA's hiring capabilities. Participants reflected on the duplicative efforts observed in other agencies and questioned why certain resources weren't made available to the FAA, considering its critical responsibilities in public safety.

Ms. Drees sought input on how to move forward with the various ideas discussed. A suggestion was made to compile the discussion points into a white paper, capturing the feedback for future reference. There was a consensus to modify the existing recommendations based on the insights shared during the meeting. COMSTAC members agreed to circulate the revised recommendations for further comments before finalizing them. The group took a formal vote to accept the updated recommendations, with the understanding that additional details would be included in the forthcoming white paper.

The members voted unanimously to approve all four recommendations from Task #2 with the expectation that further detail would be added to the white paper.

Response to Open COMSTAC Recommendations

The DFO provided a status update for COMSTAC recommendations from 2018 to present: 35 percent are in progress, 41 percent are implemented, 9 percent are not implemented and 15 percent are partially implemented.

AST then briefed the members on FAA/AST responses to COMSTAC recommendations from the April 2024 meeting. The responses were briefed by Mr. Randy Repcheck, Deputy Director for AST's Office of Strategic Management.

Recommendation #1: Update the Space Transportation Infrastructure Matching (STIM) Grants Program by changing the maximum Federal share from 50 percent to 90 percent (to be consistent with what is done for Airport Grants) and by deleting the requirement for a 10 percent private sector match.

- Increase the program funding level to \$100 million per year.
- Prioritize grant awards based on the project benefit to the National Spaceport Network in terms of Safety, Capacity, Efficiency and Resiliency.

FAA/AST response: FAA/AST gave a presentation to Congress on the differences between the STIM grant program and other DOT grant programs (requirement for 50% match, cap on award amount, etc.) in October of 2023. We have answered various technical assistance requests from Congress on the topic since and have highlighted these differences when asked. The FAA also continues to work on prioritizing spaceport infrastructure investment through the work of the National Spaceport Interagency Working Group.

Recommendation #2: The FAA should explore with the NRC, DOE and the rest of the Interagency which agency (if any) has authority for licensing the operation of Space Nuclear Systems (SNS) once they are in space. Additionally, the FAA should develop a strong collaborative relationship with the NRC.

FAA/AST response: FAA/AST is actively involved in working with all of the nuclear energy-engaged Departments and Agencies within the U.S. The Interagency Nuclear Safety Review Board (INSRB) is an interagency (DoD, DOE, DoS, DoT, EPA, NASA, NRC) board that serves as part of the checks and balances of the Presidentially directed processes portfolio for launches of spacecraft containing space nuclear systems.

Recommendation #3: The FAA should address challenges with procuring insurance for launches of space nuclear systems.

FAA/AST response: FAA/AST requests additional details on this recommendation. What are the challenges the FAA should address that are within our statutory authority?

Recommendation #4: The FAA should adopt a framework for finalizing an SNS payload review ahead of a launch or reentry licensing decision within a specific timeframe.

FAA/AST response: Part 450 provides for a stand-alone payload review prior to the launch operator submitting a license application. This will ensure that the SNS operator has time to fully disclose information and work to obtain a favorable payload review.

Recommendation #5: The FAA should allow for the launch of radioactive materials in small quantities without requiring overly burdensome safety analysis. This could yield valuable insights without increasing public risk.

FAA/AST response: FAA/AST wrote the AC to be scalable to the risk. Under the current framework for very small quantities with appropriate safety, there is not a burdensome amount of information required to be submitted.

Recommendation #6: FAA/AST should reinvigorate its efforts to publish Advisory Circulars (AC) that address aspects of the Part 450 regulations.

FAA/AST response: FAA/AST asserts that the publication of ACs is an on-going priority for the FAA.

Recommendation #7: FAA/AST should evaluate a change to its policy and regulations to address the significant challenges with its Means of Compliance review and methodologies for Flight Safety Analyses.

FAA/AST response: FAA/AST believes means of compliance and methodologies will likely be a significant topic in the Part 450 SpARC. FAA/AST is also focused on increasing regulatory clarity for applicants.

Recommendation #8: The FAA should expeditiously move forward with the Part 450 SpARC.

FAA/AST response: FAA/AST expects the charter to be signed soon and will send letters of invitation as quickly as possible afterward.

Recommendation #9: The FAA should engage meaningfully and consistently with FAA applicants and interested parties to define clear goals for regulatory reform.

FAA/AST response: FAA/AST is engaging with COMSTAC, the SpARC, and individual applicants to obtain clear pain points for regulatory reform efforts.

Recommendation #10: The AST should host a discussion on the scope of what human occupant safety entails before future guideline revisions are released. This could be held within the existing SpARC or another forum, but it is recommended that discussion occur after the initial Part 460 SpARC work is complete for guidance and deconfliction.

FAA/AST response: FAA/AST will consider hosting a discussion on the Recommended Practices document after the 460 SpARC work is complete.

Recommendation #11: Until a revision or retraction is issued, AST should clarify intent of the document to guide any use by new and existing entrants.

FAA/AST response: FAA/AST's Recommended Practices document is intended to create dialogue among, and perhaps consensus of, government, industry, and academia on practices that will support the continuous improvement of the safety of launch and reentry vehicles designed to carry humans. The document can also be used to help identify subject areas that could benefit from industry consensus standards.

Recommendation #12: COMSTAC recommends a revision or retraction of the 2023 Recommended Practices for Space Flight Participant Occupant Safety.

FAA/AST response: The document is not regulatory in nature.

Recommendation #13: As the Safety Working Group continues to review its recommendation for how voluntary consensus standards can be used as a means of compliance with performance-based requirements, initial findings are that: In addition to industry standards, means of compliance for future performance-based requirements should include government standards and other unique means of compliance developed by an individual applicant.

FAA/AST response: Government standards are used as a means of compliance (MOC). The FAA/AST would publish as a MOC industry unique MOCs that have been accepted if industry does not claim those MOCs as proprietary. If a MOC is deemed by the industry stakeholder to be proprietary, then the FAA will not be able to publish it.

Recommendation #14: The FAA should detail how it analyzes the readiness indicators outlined in the report and provide more thorough substantiation of the agency's findings regarding the industry's readiness to implement.

FAA/AST response: FAA/AST plans to readdress the indicators after the SpARC. The readiness indicators are currently being discussed within the Part 460 SpARC.

Recommendation #15: The FAA should continue to encourage current efforts to develop industry consensus standards through the devotion of resources and incentives for operators to participate.

FAA/AST response: FAA/AST continues to dedicate resources to the development of industry consensus standards and when a standard can be used to show compliance to a requirement, FAA/AST will publish guidance appropriately.

Recommendation #16: The FAA should prioritize updating the 2014 Recommended Practices for Human Space Flight Occupant Safety document, including COMSTAC review, prior to taking further action.

FAA/AST response: On December 4th, 2023, DFO tasked COMSTAC to provide observations and recommendations on the recommended practices and we received feedback at the April 23rd, 2024, meeting.

Recommendation #17: The FAA should continue collaboration with COMSTAC and industry partners to determine the Human Spaceflight SpARC's scope, participants, and pace.

FAA/AST response: The SpARC is underway and is expected to complete its final recommendations report in the Fall of 2024. This activity is independent of COMSTAC.

Recommendation #18: Should additional activity be required with respect to Human Spaceflight, the FAA should seek additional resources

FAA/AST response: FAA/AST has requested through appropriate channels, an increase to coincide with additional actions. FAA/AST will continue to monitor and plan for additional resources once the learning period sunsets.

Recommendation #19: In a limited resource environment, the FAA should ensure that activities in this area should not negatively impact the FAA's ability to manage the current and expected increase in launch and reentry licensing activity and other current statutory duties of the office.

FAA/AST response: The resources for HSF Occupant Safety work is different than the resources for launch and reentry licensing as well as the resources for the Office of Spaceports.

Recommendation #20: The FAA should clarify and as needed amend Part 450 to address challenges with requirements that are distinct to launch or reentry. The FAA should prioritize Part 450 clarification through guidance and policy balanced with reforms.

FAA/AST response: FAA/AST has requested the Transportation Secretary to charter a Part 450 SpARC to obtain industry recommendations on updating Part 450. This will allow FAA/AST to gather detailed industry feedback on changes and updates that are needed to provide a better streamlined licensing process while maintaining the focus on public safety. As of September 16, 2024, there are a total of 22 ACs published on the FAA/AST website with 15 more being actively worked.

Advisory Circular (AC) and Policy Updates

Mr. Repcheck also provided members with updates on ACs and recently implemented AST policies. He reported a total of 22 ACs have been published, with an additional 15 currently in development. In the current fiscal year alone, Mr. Repcheck highlighted that 10 new ACs have been worked on, comprising eight entirely new documents and two revisions. Notably, among these is FSA (Flight Safety Analysis) Methodology, which has been a significant concern within the industry. Mr. Repcheck also mentioned there are 14 additional active ACs beyond the current year's output. Looking ahead, there are plans to develop 13 new ACs and revise 12 existing ones over the next couple of years. Moreover, he mentioned the process of prioritizing which ACs to work on is multifaceted; it considers both the importance of the ACs and the availability of personnel to manage the development of these documents.

In terms of rulemaking activities, the speaker outlined two active rulemaking efforts related to recent legislative changes. The completion of a final rule for the Commercial Space Launch Competitiveness Act (CSLCA) is imminent, pending publication in the <u>Federal Register</u> (since published September 19, 2024). This rule incorporates various changes required by the United States Commercial Space Launch Competitiveness Act of November 2015. Additionally, work on the Orbital Debris rule is underway, with a target rollout expected by late spring or early summer of 2025. AST is still working through comments to the Notice of Proposed Rulemaking.

Future COMSTAC Tasking Discussion

Mr. Verna then asked COMSTAC to suggest topics for the next COMSTAC term. Participants expressed concerns regarding the efficiency of past discussions, particularly in how issues have sometimes been deferred to working groups without meaningful input from COMSTAC. The need for better integration between COMSTAC and other working groups was highlighted, particularly when it comes to setting priorities for Advisory Circulars and regulatory considerations. Some members felt that past efforts, particularly related to AC priorities, had become inefficient, leading to redundancy and misalignment with industry needs. A clear call was made for COMSTAC to take a more active role in advising the FAA on these matters.

The discussion also touched on the need for a broader representation within COMSTAC. Several members noted that key players from the industry are often missing from discussions, which limits the committee's ability to gather comprehensive feedback. There was a call to ensure that diverse perspectives are represented, particularly from organizations licensed by the FAA that do not currently have a voice in these discussions.

Future topics for discussion included enabling commercial human spaceflight training and addressing challenges related to emerging technologies, such as hypersonic vehicles. The committee recognized that as the industry expands, the scope of potential taskings would likewise grow. Participants brainstormed various ideas for tasking, such as addressing interagency coordination for space rescue operations and concerns were therefore raised about the lack of defined responsibilities among different agencies in the event of a space emergency. It was also suggested that COMSTAC could be tasked with assessing the value of the Common Standards Working Group (CSWG) and advise on the potential benefits of replacing the CSWG with a group that includes representation from both government and industry. As the meeting approached its conclusion, members reflected on the role of technology in enhancing the efficiency of the FAA's processes. Suggestions were made to explore how new technologies could be integrated to improve application processing and overall operational efficiency. There was a call for a dedicated task force to investigate technology stacks that could assist current resources, especially given the budgetary constraints AST faces.

Closing

Mr. French opened up the meeting to the public comment portion of the agenda. Mr. Verna stated that he had not received any requests to make a public comment. In closing remarks, participants expressed gratitude for the collaborative efforts throughout the meeting. Mr. French acknowledged the contributions of outgoing leadership, particularly thanking Ms. Drees for her substantial impact on the committee's work over the past two years.

Mr. Verna adjourned the meeting at 3:30 p.m. Eastern Time.