

MEMORANDUM OF AGREEMENT

Between

NATIONAL TRANSPORTATION SAFETY BOARD

&

FEDERAL AVIATION ADMINISTRATION

Concerning

Commercial Space Mishap Investigations

Effective Date: September 9, 2022

1. PURPOSE

- a. The National Transportation Safety Board (NTSB) and the Federal Aviation Administration (FAA) enter into this Memorandum of Agreement (MOA) to facilitate timely cooperation between the agencies as they carry out their respective missions. This MOA identifies investigative responsibility, investigative relationships, interagency notification procedures, coordination responsibilities and reporting responsibilities of the NTSB and FAA in connection with commercial space mishap investigations, and identifies areas in which the exchange of information, data and use of resources or services of the lead investigative agency by the other may be requested.
- b. This MOA replaces Appendix H to the 1975 Reimbursable Agreement between the NTSB and FAA as well as all prior MOAs, Memoranda of Understanding (MOUs) and agreements between the NTSB and FAA for commercial space mishap investigations.
- c. This MOA is intended to reinforce the joint goals of the NTSB and FAA with the primary goal of ensuring a safe U.S. commercial space industry.

2. AUTHORITY AND APPLICABLE LAW

- a. This MOA applies to commercial space mishaps as defined in Section 13 herein whether or not the mishap is the result of an FAA permittee or an FAA license holder. For purposes of this MOA and what qualifies as a mishap, the terms permittee and licensee are interchangeable.
- b. This MOA is entered into on behalf of the NTSB under authority of the Independent Safety Board Act of 1974, as amended (49 U.S.C. § 1101 et. seq.), specifically, but not limited to, 49 U.S.C. §§ 1114, 1131(a)(1)-(3) and (e), 1134(a)-(c), and (f) and 49 C.F.R. § 831.10.
- c. This MOA is entered into on behalf of the FAA under authority of 51 U.S.C. §§ 50903(a) and (c), 50905(c), 50908(d), and 50917.
- d. Nothing in this MOA alters the statutory authorities of the NTSB or FAA. This MOA is intended to facilitate cooperative efforts of the NTSB and FAA in the area of commercial space mishap investigations as those terms are defined in this MOA.
- e. U.S. federal law governs this MOA for all purposes including, but not limited to, determining the validity of the MOA, the meaning of its provisions, and the rights, obligations, and remedies of the NTSB and FAA.

- f. Information gathered through investigation may be subject to the International Traffic in Arms Regulations/Export Administration Regulations (ITAR/EAR) restrictions; the Trade Secrets Act, 18 U.S.C. § 1905 (TSA); the Privacy Act, 5 U.S.C. § 552a; and the Freedom of Information Act, 5 U.S.C. § 552. The NTSB is recognized as a public health authority for purposes of the Health Insurance Portability and Accountability Act (HIPPA), Pub. L. 104-191 (1996).
- g. This MOA is not intended to conflict with current or future laws or regulations or the directives of the NTSB, U.S. Department of Transportation, or FAA. If any term of this MOA is inconsistent with such authority, then the term shall be invalid, but the remaining terms and conditions of this MOA shall remain in full force and effect. No third parties are to take any rights or otherwise benefit under this MOA. This MOA is not intended, and should not be construed, to create any right or benefit, substantive or procedural, enforceable at law or otherwise, by any third party against the NTSB or FAA, the U.S. Department of Transportation, the United States, or the officers, employees, agents, or other associated personnel thereof.

3. **RESPONSIBILITIES AND COORDINATION OF INVESTIGATIONS**

- a. The NTSB will be the lead investigative agency for FAA permitted, licensed, or otherwise FAA approved, commercial space launch or reentry mishaps resulting in—
 - i. A fatality or serious injury (as defined in 49 C.F.R § 830.2) to any person, regardless of whether the person was on board the commercial space launch or reentry vehicle; or
 - ii. Damage to property from debris (intact vehicle, vehicle fragments, payload, or any planned jettison bodies or substance) that could reasonably be expected to cause death or serious injury, and the property is not associated with commercial space launch or reentry activities or the launch site.
- b. For purposes of this MOA, property is defined as buildings and structures, anything that transports people or goods, or areas occupied or intended to be occupied by people.
- c. The FAA will be the lead investigative agency for all other commercial space mishaps as defined in 14 C.F.R § 401.7, as in effect on the date of the signing of this MOA.

- d. In the event the NTSB or FAA is unable to or cannot act as the lead investigative agency the NTSB or FAA will notify the other agency and that agency may be the lead investigative agency.
 - e. If the NTSB investigates, the FAA will be a party to the NTSB investigation; and if the FAA investigates, the NTSB will be an official observer of the FAA investigation.
 - f. The NTSB and FAA agree that each agency will conduct its own analysis and determine its respective conclusions and recommendations in accordance with its authorities.
 - g. The NTSB and FAA agree that upon report of a mishap, as defined in Section 13 of this MOA, each agency will immediately notify the other of all available information regarding the mishap and both agencies will expeditiously coordinate the appropriate investigative response as soon as practicable. Either agency can initiate an interagency coordination call for the agencies to discuss the specific circumstances of any mishap.
4. **POSTMORTEM:** The NTSB and FAA are committed to obtaining all possible postmortem data and will ensure that appropriate autopsies and toxicological analysis are performed on the crew and space flight participants' remains.
- a. For those investigations led by the NTSB and utilizing the agency's party process, the NTSB Investigator-in-Charge will inform all parties, including the U.S. Space Force, FAA, and National Aeronautics and Space Administration (NASA), when appropriate, before ordering an autopsy, or requesting additional examinations, toxicology testing, or other medical procedure for any fatality investigated under this MOA. Appropriate party representatives may participate in an autopsy/examination if requested.
 - b. For those investigations led by the FAA, the FAA Federal Flight Surgeon, in consultation with the appropriate federal agency peers and FAA's mishap investigation leadership, will determine the appropriate use of medical resources, including FAA's Civil Aeromedical Institute.
 - c. For any "mixed crew" (mix of private and government astronauts), the NASA "Recovery and Disposition Authority" (51 U.S.C. § 20147) will have priority for any comingled remains.
 - d. The NTSB, FAA, and any other government agency, as appropriate, will ensure that postmortem is addressed as soon as practical and all parties are informed of the plan.

5. EXCHANGE OF INFORMATION

- a. The NTSB and FAA agree that, regardless of which agency leads the investigation, neither agency's authority is diminished when one is designated the lead. Further, the NTSB and FAA agree to share all information relevant to the investigation. The agencies agree that the lead investigative agency will help to coordinate information sharing among the agencies, particularly during the on-scene phase of the investigation.
- b. The owner or custodian of data requested by or provided to the NTSB and FAA shall send the data simultaneously to both agencies, when practical. Requested data may include, but is not limited to, voice, telemetry, pre-launch, launch, on-orbit, and re-entry records, and any other record or information pertinent to a mishap investigation.
- c. Interviews, discussions, or other communications with witnesses will be scheduled by the lead investigator and will include the other agency and parties to the investigation, when appropriate, unless they decline to participate, preferably in writing. After confirmation and coordination with the lead investigator that it is not interested in communicating with a witness, a non-leading agency may interview or communicate with the witness. When practical, data gathered during the interviews, discussions, or other communications with witnesses will be simultaneously provided to the NTSB and FAA investigators, or their designee(s).
- d. Testing, whether destructive or nondestructive, will be coordinated and witnessed by the lead investigator and will include the other agencies, and parties to the investigation when appropriate, unless they decline to participate, preferably in writing. Testing decisions will be made by the lead investigator with input from the other agency based upon the needs of the investigation and in accordance with 49 U.S.C. § 1134 and 49 C.F.R. Part 831.
- e. If information, data, or any other relevant evidence comes into the possession of the NTSB or FAA that has not been shared with the other agency, the lead investigator will notify the other agency of such information, data, or evidence as soon as practical and a duplicate of the material will be provided to the other agency within 72 hours of the notice, unless a longer time period is necessary or mutually agreeable.
- f. The NTSB will follow the party process when engaging directly with an FAA-issued license holder during the investigation.

6. PUBLIC RELEASE OF INFORMATION

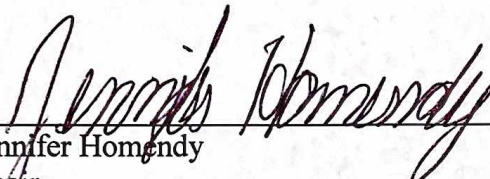
- a. The NTSB and FAA recognize that information gathered through an investigation may be subject to ITAR/EAR restrictions; the Trade Secrets Act, 18 U.S.C. § 1905 (TSA); and other laws and regulations limiting disclosure. Therefore, both agencies agree to protect information relevant to this MOA to the full extent required by law, regulation, or relevant authority. Neither agency shall share information with any entity and/or individual who is not authorized by law, regulation, or relevant authority to receive such information.
- b. For investigations where the public interest demands on-scene live media engagements or written press releases, the agencies agree that the lead investigative agency will act as the sole spokesperson for mishap investigation information and activity, and press conferences and press releases will identify the lead and supporting investigating agencies.
- c. For an NTSB led investigation, the spokesperson for the investigation will be the Board Member on scene or the NTSB Investigator-in-Charge.
- d. For an FAA led investigation, the spokesperson for the investigation will be the Administrator or his/her designee.
- e. Only factual information will be released while on scene. All data released will abide by ITAR/EAR restrictions, the TSA, NTSB or FAA proprietary data disclosure rules and regulations, and other applicable law, regulation, or relevant authority.
- f. If the other agency desires to have a unique media contact, the lead agency must be informed and a summary of the anticipated media contact and subject matter must be provided prior to the contact.
- g. Once the on-scene portion of the investigation is complete, both agencies may issue independent press releases and conduct any press conferences, as necessary, related to their investigation; however, any release must comply with ITAR/EAR, the TSA, proprietary information requirements, and other applicable law, regulation, or relevant authority. All parties to NTSB investigations must follow the party rules concerning release of information, as defined in 49 C.F.R. § 831.13.
- h. When one agency, after appropriate coordination with the other agency, initiates a formal action before the completion of the final investigation report(s), such as the FAA determining the ability of a licensee to continue to operate under its license or the NTSB issuing an urgent safety recommendation, the agency will ensure that only information necessary to support the action being initiated is

- b. included in the public release. When needed, the NTSB may release initial findings related to the determination that areas of the range or vehicle may return to flight.
 - i. The NTSB will inform the FAA when it decides to conduct an investigative hearing, and the FAA has the right to participate in such a hearing. It is possible that analytical information will be shared by witnesses during the investigative hearing, but when necessary, the hearing will be closed to address information and data sensitivities, such as ITAR/EAR and the TSA. A public docket will be opened for the investigative hearing, and will include transcripts, but a report of the investigative hearing will not be drafted.
 - j. Each agency may publicly disclose the contents of its final report. For the NTSB, this occurs when the Board adopts the final report. The releasing agency will inform the other agency on the timing of the public disclosure. Unless otherwise required by law, regulation, or relevant authority, publicly disclosed final reports shall not contain information subject to ITAR/EAR, the TSA, or the Privacy Act.
 - k. When one agency receives a request for release of information that is a record of the other agency, the agencies agree to consult and refer the request for a direct release by the appropriate agency.
 - l. If the NTSB determines that business sensitive or medical information must be publicly disclosed for safety purposes in a final NTSB report or supporting factual material, in compliance with NTSB rules and regulations 49 U.S.C. §§ 1114 and 1116 and 49 C.F.R. § 831.56, the NTSB will provide notice to the custodian of the information before such disclosure and will also inform the FAA of such determination.
7. **RELEASE OF WRECKAGE:** The lead investigative agency will release wreckage to the other agency to this MOA if it requests control of the wreckage upon completion of the official investigation. If neither agency to this MOA desires to maintain control of the wreckage, the wreckage will be released to the owner or other appropriate third party. Any agency or third party that retains control of the wreckage shall be responsible for storage and security costs, if any.
8. **TIMELINESS**
- a. In accordance with the party process, the NTSB and FAA commit to work together, along with the relevant parties, to complete factual reports from mishap investigations within 10 months of the mishap. All factual reports will be reviewed for ITAR/EAR and TSA compliance by the applicable federal agencies.

- b. The 10-month goal will depend on the complexity of the mishap; therefore, the final report timeline may be delayed due to the investigative requirements. The NTSB Director of the Office of Aviation Safety and the FAA Associate Administrator for Commercial Space Transportation will remain in contact during the investigation and must inform the other agency of changes to their report timeline.
 - c. After coordination with the other agency, the lead investigative agency will release general findings regarding the areas of investigation found not to have contributed to the mishap as soon as possible (less than 4 weeks from the mishap). Parties to the investigation, including any licensee or permittee, will be informed prior to the release of the findings.
 - d. The NTSB may issue an urgent safety recommendation at any time during the investigation. Factual or analytical information may be released in support of the urgent recommendation. The FAA will be informed of any release of information, and the release will comply with ITAR/EAR, TSA, and any other law, regulation, or relevant requirement.
9. **FUNDING:** The NTSB and FAA will bear the full cost each agency incurs in performing, managing, and administering its responsibilities under this MOA. The lead investigating agency will provide funding for the investigation with each agency bearing its travel costs, except costs for testing completed by the non-lead agency will be borne by that agency.
10. **EFFECTIVE DATE AND TERM:**
- a. This MOA is effective on the date of the last signature below and will remain in effect unless terminated by the NTSB or FAA as provided herein. Close and continuing liaison and cooperation will be maintained between the two agencies so that common objectives are achieved efficiently and differences are resolved expeditiously.
 - b. The NTSB Director of the Office of Aviation Safety and the FAA Associate Administrator for Commercial Space Transportation agree to meet no less than annually to review progress, accomplishments, and priorities impacted by this MOA. These meetings may include other agency staff, as necessary.
11. **MODIFICATIONS:** Modifications to this MOA will be in writing and signed by duly authorized representatives of the NTSB and FAA acting within the scope of their authority. No oral statement by any person will be interpreted as modifying or otherwise affecting the terms of this MOA. All requests for interpretation or modification will be made in writing.

12. **TERMINATION:** The NTSB and FAA may consider terminating this MOA at any time, with or without cause, and without incurring any liability or obligation to the other agency. The agencies will meet to discuss the possibility of termination at least ninety (90) days prior to written notice of termination.
13. **DEFINITIONS:** For purposes of this agreement, the terms mishap, launch, and reentry have the meaning given those terms in 14 C.F.R. § 401.7, in effect on the date of the signing of this MOA.

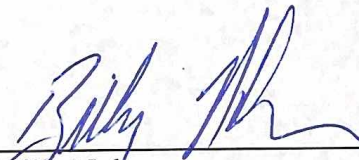
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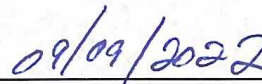
Jennifer Homendy
Chair
National Transportation Safety Board



Date



Billy Nolen
Acting Administrator
Federal Aviation Administration



Date