Federal Aviation Administration

Memorandum

Date: June 5, 2024

To: Daniel Murray, Executive Director, Office of Operational Safety, ASA-1

From: Laura Megan-Posch, Assistant Chief Counsel for Regulations, AGC-200

Prepared by: Leana M. Brown, Attorney-Advisor, AGC-260

Subject: FAA Access to Communication Networks During Launch

LAURA JANE MEGAN-POSCH Digitally signed by LAURA JANE MEGAN-POSCH Date: 2024.06.05 16:42:12 -04'00'

This memorandum responds to your request for a legal interpretation dated April 9, 2024, regarding whether an FAA inspector's access to communication networks during licensed activity is limited to only the channels identified in an operator's communications plan.

AST advised AGC-260 that some operators are claiming that FAA inspectors are authorized to access only those communication networks identified in the operator's communications plan. On various occasions, operators used alternative channels not provided to FAA inspectors to communicate during licensed activity. Specifically, FAA inspectors have noticed that some of the unshared communication networks have included communication related to licensed activities and the countdown for launch or reentry.

Background

Compliance monitoring requirements are codified in 14 CFR §§ 417.23, 431.83 and 450.209. These sections require that an operator provide an FAA inspector access to observe any of the operator's activities associated with licensed operations.[1] The language in the regulation is intentionally broad to ensure inspectors can effectively verify the safe performance of licensed activities. Access to all communication channels allows FAA inspectors to identify potential issues and alert the operator, so the operator can take action to maintain or return to compliance. The

[1] Section 417.23(a) requires that a licensee cooperate with and allow federal officers or employees access to observe any of its activities associated with the conduct of a licensed activity. Section 417.23(b) requires that the operator provide FAA with a console for monitoring the countdown's progress, and the communication on all channels of the countdown communication networks. Section 431.83 mirrors § 417.23, however, it does not include the specific language requiring the operator to provide a console to the FAA. Section 450.209 adopts the requirements provided in §§ 417.23 and 431.83. In fact, § 450.209 is almost identical to § 417.23, with a slight change allowing for the operator to provide the FAA with means other than a console for monitoring the communication and countdown channels.

Streamlined Launch and Reentry Licensing Requirements NPRM (hereby referred to as "SLR2 NPRM"), in discussing § 450.209, contextualizes the role that access to communication networks plays in compliance monitoring. The SLR2 NPRM provides that monitoring communications channels is a vital part of compliance monitoring, and inspectors should have access to as much of the operation as they deem necessary in order to be able to detect noncompliance.[2] The NPRM further elaborates that an FAA inspector's request to monitor network channels is not meant to be a punishment, but is a mechanism to allow inspectors the opportunity to identify potential licensing issues and alert the operator so that they can take action. Ultimately, providing the networks as part of compliance monitoring ensures safety while minimizing the impacts on the operator.[3] The final rule maintained the same position as the NPRM with a slight deviation allowing for the operator to provide the FAA with means other than a console for monitoring the communications and countdown channels.[4]

Communications requirements are codified in 14 CFR §§ 417.111(k), 431.41 and 450.157. These sections require an operator to have a communications plan that defines the authority of personnel, assigns communication networks and any abort decisions or commands, ensures that personnel monitor common intercom channels during countdown and flight, and implements a protocol for using defined radio telephone communications terminology.[5]

The FAA requires operators to implement their communications plan to ensure that clear lines of authority and situational awareness are maintained during countdown operations. The communications plan requirements were the result of a 1993 National Transportation Safety Board ("NTSB") investigation.[6] The 1993 investigation, prompted by an Orbital Sciences mishap, identified a lack of clear communications between different ranges and the operator to be one of the main contributing factors to the mishap. The investigation report included recommendations to be implemented, one of which was for the Department of Transportation ("DOT") to include regulations requiring coordination between operators and ranges to avoid a similar mishap in the future. As a result, DOT implemented the communications regulations, requiring a communications plan to establish clear communication procedures during the countdown and flight of a launch or reentry vehicle. The part 450 communications regulations also contain a

[2] "Monitoring the communications channels—including countdown, anomaly, range coordination, surveillance, and weather—is a vital part of compliance monitoring and safety inspection operations, regardless of operation type. . . . Because safety inspectors are trained to detect non-compliances, they need to have access to, and the discretion to see and hear, as much of the operation as they deem necessary." *See* Streamlined Launch and Reentry Licensing Requirements, NPRM, 84 FR 15296, 15375 (April 15, 2019).

[3] *Id.*

[4] For compliance with § 417.23, the operator must supply a console; whereas §§ 431.83 and 450.209 allow for the operator to comply by an alternative acceptable means.

[5] 14 CFR §§ 417.111(k), 431.41, and 450.157. Section 450.157(b) states that an operator must ensure the currency of the communication procedures and that all personnel are working with the approved version of the communication procedures. Section 450.157(c) requires that an operator record "all safety-critical communications network channels used for voice, video, or data transmissions that support safety-critical systems during each countdown." Section 450.157(c) provides the same requirements as in §§ 417.111(l)(5)(vii) and 431.41.

[6] Special Investigation Report: Commercial Space Licensed Activity Incident, Licensed Activity Procedure Anomaly Orbital Sciences Corporation, Pegasus/SCD-1, 80 Nautical Miles East of Cape Canaveral, Florida, February 9, 1993. Report PB 93-917003/NTSB/SIR93-02, July 23, 1993; also available at https://www.ntsb.gov/safety/safety-studies/Documents/SIR9302.pdf (explaining and identifying the procedural anomaly that occurred during the licensed activity sequence of an Orbital Sciences Corporation Pegasus expendable licensed activity vehicle, and providing safety recommendations that influenced the construction of the communications plan requirements in the regulation).

recording requirement because the recordings are often a critical element to a mishap investigation.[7]

Legal Analysis

The compliance monitoring requirements and the communications requirements are separate, and one does not limit the others' scope. Therefore, an operator must grant an FAA inspector access to monitor any of the operator's communications channels used during a licensed activity. This access allows the inspector to be cognizant of issues that could arise during a countdown. Such issues include, but are not limited to, vehicle health, ground operations, flight safety system health, range readiness, clearance of surveillance and hazard areas, weather, and countdown procedures.[8]

The compliance monitoring regulations provide that an operator must allow access by Federal officials to observe any of the operator's activities associated with the licensed activity, to include access to all networks an operator uses during licensed activity. This access allows FAA inspectors to identify potential issues and alert the operator, so the operator can take action to maintain or return to compliance.

The communications regulations are not a limit on the scope of the compliance monitoring regulations. The communications regulations guarantee that the operator has certain protocols in place as an effort to avoid a situation where the operator and the launch site have avoidable communication complications on the day of the licensed activity. While the networks identified by an operator in accordance with § 450.157 may serve as a guide to FAA inspectors regarding what channels to monitor, it is not an exhaustive list of networks to which the FAA may be granted access.

Conclusion

Therefore, in accordance with the compliance monitoring regulations, an operator must grant FAA inspectors access to any communications network channels that an operator uses during a licensed activity. If an operator does not provide FAA inspectors access to communications network channels the FAA inspector requested to access, the operator may be non-compliant and subject to enforcement.

[7] 14 CFR 450.157(c).

[8] *SLR2 NPRM* at 15332-15333; additionally, the NPRM states that this access gives an inspector a sense of an operator's safety culture, rigor, and readiness.