Policy Statement PS-AIR-21-1901

Use of Remote Technology during the
Performance of Inspections and Tests

Frequently Asked Questions

Recorded Video and Live Video Witnessing
Question: Can the applicant conduct inspections or tests and then send the video to the FAA aircraft certification engineer, manufacturing aviation safety inspector (ASI) or designee for verification?

No. The inspection or test requires that the FAA engineer, ASI or designee be virtually present for all inspections or tests. Exceptions to the real-time requirement are noted in the policy statement. They include video, audio, or other information collection means that are normally used to support showings of compliance; such as when video is used as a backup means to support an inspection or test, or when it is difficult to observe the results of certain tests, such as high-intensity radiated field tests, in-flight icing tests, or water ingestion tests.

Applicability to Flight Tests and Ground Tests
Question: Does the scope of this policy include aircraft flight tests and ground tests?

Flight or ground tests in which a pilot, or other required flight crewmember, is an integral part of the evaluation process is outside of the scope of this policy statement and RT may not be used.

Tests in which the pilot/crewmember is not part of the evaluation process, may be candidates for RT applications. Regardless of the type of test proposed (for example, ground, lab, qualification, etc.) each situation needs to be evaluated and found acceptable by the designees, flight test branch, and ACO personnel responsible for the technical areas involved.

The above answer also applies to the evaluation of unmanned aircraft systems.

Minimum Equipment Specifications
Question: Will there be follow-on guidance that specifies minimum requirements for the remote technology equipment?

No, the remote technology must be sufficient to enable persons to properly perform their duties and the remote technology requirements can vary widely depending upon the

specific application. It is up to the persons involved in the inspection or test to determine if the equipment satisfies the objectives.

Relocating Video Equipment During Phases of the Tests
Question: Are relocating camera and audio placements to be expected or required during the different phases of the test witness; that is during setup, pre-test, test execution and post test?

Yes. A test may have several phases and each may necessitate difference camera angles, fidelity, equipment setup, etc. The applicant should describe how the remote technology equipment will be used during all phases of the test and include that description in their test plan. The test plan should be approved with all phases of the test considered and define RT requirements for each aspect of the test.

Application Limitations of Remote Technology
Question: Has experience shown that some applications of this policy may be challenging or unsuitable?

The application of remote technology has proven to be challenging and often unacceptable to the FAA in certain applications. Extra precautions should be taken when making a determination if the use of remote technology is appropriate. Some of these items include, but are not limited to the following:
- Cabin attendant direct view
- Legibility of markings and placards
- Tests involving the generation of smoke (smoke detection, propagation, penetration and evacuation)
- Testing involving the use of naïve subjects
- Effectiveness of life vest container security seals
- Evaluation of sharp edges/corners and other injurious features
- Human factor related activities
- Usability of escape slides
- Cross-aisles, particularly zig-zag aisles
- Firm hand-holds
- Placard/sign visibility
- Aural warnings
- Emergency lighting

Many of the above items need to be physically evaluated during an interior compliance inspection, which generally require the FAA-witness to operate/manipulate/evaluate accessibility of cabin safety features. Since these are hands-on evaluations, they are not capable of being evaluated using RT. It is also not acceptable to use a non-FAA witness who is physically present and use RT to evaluate these items.

Cybersecurity

Question: How is cybersecurity being evaluated as part of the process?

FAA employees and designees will adhere to all FAA information security policies. The applicant should consider, but does not need to describe, how cybersecurity is being assured.

Responsibility for Proper Showings

Question: What happens if the remote technology fails for any reason to enable a proper showing of compliance?

The applicant assumes all risks of ensuring the remote technology provides sufficient detail and fidelity to enable proper inspections and tests. If the equipment malfunctions or the video does not enable a proper determination, retesting may be required with either changes to the video setup or with the FAA-authorized witness conducting on-site witnessing. These risks are reduced if the applicant and FAA-authorized witness evaluate the effectiveness of the video setup and capabilities beforehand and discuss the inspector's or witness's expectations beforehand.

Adequate Training of Personnel

Question: The Equipment and Setup Considerations section of the policy states to consider "whether personnel have been adequately trained in the proper set up, validation, and use of the technology, tools and/or equipment". Does "adequately trained" mean that a formal training program or an auditable/measurable outcome is expected to be required for personnel to perform remote technology functions?

 "Adequately trained" as used in this policy means that the persons operating the remote technology equipment are proficient at what they do. It is not meant to impose any new formal training requirements.

Video Retention Expectations.

Question: The Equipment and Setup Consideration section states that the "FAA may request that the person conducting the inspection or test record and save video, audio, or other information for a specified time to enable evaluation, or adherence to this policy."

- Is an applicant required to retain all audio, video, or other information used during remote inspections or test witnessing after the completion of the evaluation or final determination has been made?
- What determines how long these data must be retained?

The FAA may request that an appropriate amount of audio and video be retained for a prescribed amount of time to enable evaluation or adherence to this policy. The FAA will define the length of time based on our determination of completing necessary tasks.

Chronological Description of the Test
Question: Does the chronological description of the tests or inspections, the description of any adjustments made to the equipment, and the reasons for the adjustments mean that an applicant must document and describe every time any adjustment is made?

The description should be appropriately detailed to ensure the integrity of the test is maintained. Adjustments, such as refocusing the camera lens, that do not reasonably affect the test integrity do not need to be included. In most cases, the applicant should include a date and time on the video recording.

RT Planning Documents

Question: Should the Partnership for Safety Plan (PSP)/ Project Specific Certification Plan (PSCP) /conformity inspection plan (CIP) contain all of the detailed information about the use of remote technology (who, what, where, etc.) or would this information be better addressed at the lower level document such as specific test plan, request for conformity, FAA Form 8120-10, etc.?

The detailed information should be contained in the appropriate plan. Usually that is either the Project Specific Certification Plan (PSCP) or the Conformity Inspection Plan (CIP).

ODA Procedures
Question: If an ODA has over-arching FAA approved procedures for Remote Test Witnessing in their ODA procedures manual, would they still need to make a request to the appropriate ACO branch for individual inspections/tests that are already delegated to the applicant?

Any approved use of remote technology requires that the procedures be documented in the ODA procedures manual. An approval is contingent on the proposed procedures containing sufficient detail to enable its repeated use. The OMT will use standard procedures for reviewing ODA procedures manual revisions. Depending on the specific procedures agreed to by the OMT, it may not be necessary for an ODA to request concurrence prior to using RT. The procedures manual must be clear to define specific situations when it is not necessary to seek FAA prior concurrence (e.g., No-PNL projects).