

SECTION 6. CONDUCT OF FLIGHT TESTS IN A HELICOPTER

171. TRAINING REQUIRED BEFORE FLIGHT TEST. Before conducting the flight test in a helicopter, the inspector or examiner must review the applicant's training records or a statement from a company official to ensure the required training has been completed. When flight training is conducted immediately before a flight test on the same flight, it is acceptable for the instructor to make oral certification that the required training is complete and that the applicant is ready for the test. In such a case, however, the training records must be completed and the written recommendation made after the flight.

173. PLANNING THE FLIGHT TEST. Planning is essential to the efficient and effective conduct of a flight test. When an instructor or check airman acts as the safety pilot (and PIC), the inspector must coordinate closely with him in the planning. Ideally, inspectors and examiners should plan to conduct the flight test at a location which provides for visual meteorological flight conditions, an uncontested air traffic environment, a non-noise sensitive environment, and an airport with a number of navigational aids and runways that provide flexibility. Since these ideal conditions are usually not available, the flight test may have to be conducted under less than ideal circumstances. Inspectors and examiners are encouraged to coordinate with ATC at the location selected for the flight test to ensure the test can be conducted in an acceptable manner. If the flight test cannot be conducted under acceptable conditions, the inspector or examiner must reschedule the flight test at a time and location where more satisfactory conditions prevail.

175. EVENTS TO BE EVALUATED DURING A HELICOPTER ORAL TEST AND FLIGHT TEST. The "ATP/Type Rating Oral Test - Helicopter" job aid and the "ATP/Type Rating Flight Test - Helicopter" job aid have been prepared for inspectors and examiners to use when conducting oral and flight tests. The events that must be evaluated on each test are printed on the job aids (see figures 5.2.5.1 and 5.2.5.2). Inspectors and examiners are encouraged to use the appropriate job aid to plan the flight test. Events not required for the class of helicopter may be marked off the job aid. For example, autorotations are not required in a multiengine helicopter. These job aids are available on the district office Job Aid Disk.

177. PREFLIGHT BRIEFING. The inspector or

examiner shall ensure everyone who participates in the flight is adequately briefed.

A. Safety Pilot. The inspector or examiner shall brief the safety pilot, if applicable, on the conduct of the flight. If an operator's instructor or check airman is the safety pilot, he must conduct the flight in accordance with the instructions given him by the inspector. The safety pilot must provide normal crew coordination support but must not be permitted to lead the applicant when the applicant is expected to take the initiative.

B. Applicant. The inspector or examiner shall brief the applicant on the use of the SIC (safety pilot) and helicopter equipment, including the autopilot. The applicant must perform the functions of the PIC. The applicant must be briefed to immediately relinquish control and assume SIC duties if a hazardous condition arises and the safety pilot takes control of the helicopter.

C. Safety Briefing. The safety pilot shall conduct a briefing on the procedures to be used. The safety pilot briefing must cover, but is not limited to, the following:

- Transfer of aircraft control
- Procedures for simulating an inoperative engine
- Simulated abnormal and emergency procedures
- Response to an actual emergency
- Use of vision restriction devices

179. CREW QUALIFICATIONS. The safety pilot must be fully qualified and current. The safety pilot, if other than the inspector, must have completed the operator's approved instructor or check airman training program and be familiar with procedures used for blocking the controls against incorrect applicant responses.

181. VISION RESTRICTION DEVICES. For instrument flight maneuvers, a vision restriction device acceptable to the inspector must be provided by the operator or applicant. The device must not limit the vision of the safety pilot or other crewmembers, including the inspector.

183. CONDUCT OF THE FLIGHT TEST. The standard procedures specified in the operator's aircraft

operating manual must be followed in the performance of all maneuvers.

A. All emergencies and abnormalities conducted shall be simulated. Before a problem is introduced, the safety pilot shall announce to the crew that a simulated problem is being introduced.

(1) Procedures for introducing simulated, abnormal, and emergency problems must be in accordance with the operator's aircraft operating manual, training manual, and other appropriate operator directives. Safety pilots may introduce problems by sounding a warning horn, a fire bell, or by illuminating a warning light, provided the warning can be produced with a test switch which does not activate a system. Circuit breakers will not be opened to introduce problems. When the emergency or abnormal checklist procedure specifies that a circuit breaker be opened, the circuit breaker will only be opened if the action cannot be simulated and if the effect of opening the circuit breaker enhances the safety of the operation.

(2) The inspector or examiner shall not limit the problems given to the applicant to only the required engine failures. Problems should be realistic. Problems such as a simulated instrument failure which leads to the selection of alternate switching, a simulated hydraulic failure leading to a diversion to a takeoff alternate, or a simulated electrical fault requiring an approach with the

stability augmentation system inoperative, may all be practically and safely conducted on a flight test.

(3) Should an actual malfunction occur while an emergency is being simulated, the flight test shall be immediately suspended, all systems restored to normal, and the problem resolved before the flight test is reconvened. If a throttle is retarded when an actual malfunction occurs, the safety pilot shall immediately restore engine thrust to normal on all engines.

185. SAFETY. Safety is the specific responsibility of the safety pilot. The safety pilot must ensure that a testing event is not allowed to deteriorate to the point where flying safety is compromised. The safety pilot must take early and positive measures to prevent hazardous situations from arising. If the safety pilot takes control of the helicopter due to no fault of the applicant or before it is clear whether the applicant could or could not have recovered successfully, the event shall be repeated. If, however, the safety pilot feels a need to instruct, give directions, or take control of the helicopter due to a lack of proficiency by the applicant, the event and the entire flight test must be considered unsatisfactory.

187. DEBRIEFING. Inspectors and examiners shall inform the applicant of the results of the flight test and conduct a debriefing. See paragraph 33.F.

188. - 194. RESERVED.

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