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FAA Proposes Rules for Powered-Lift Aircraft Operations and Pilot Certification

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July 12, 2023

The Federal Aviation Administration (FAA) published a Notice of Proposed Rulemaking (NPRM) in June for alternative certification standards for pilots operating powered-lift aircraft, as well as specific operating rules for this unique aircraft type. These proposed rules are intended to remain in place for ten years from their effective date to give the FAA sufficient time to analyze the operation of this aircraft and construct permanent regulations that would be implemented at the end of the ten-year period. Comments on this NPRM must be filed by August 14, 2023.

Powered-lift aircraft have complex and varying designs with the ability to take-off and land vertically (VTOL) like a helicopter, while also being able to cruise en route like fixed-wing aircraft. The FAA recognizes the plethora of operations this aircraft is expected to perform, specifically identifying the ability to carry crews and materials to offshore oil rigs, passengers in dense urban environments, passengers during medical emergencies, as well as carry various categories of cargo. However, the current regulations for the certification of pilots and aircraft operations do not sufficiently address the capabilities of this new aircraft and leave a gap in the FAA's safety standards. The NPRM proposes to address this gap in the short term while gathering and analyzing data for more permanent regulations over the next ten years.

Pilot Certification

The FAA determined that the existing pilot certification regulations under Part 61 (Pilot Certification) do not adequately address the competencies needed for the operation of powered-lift aircraft, as this newly developed category of aircraft has distinct flight controls and various operating characteristics from aircraft to aircraft. If the FAA were to issue training standards for generalized classes of powered-lift aircraft, it would be unlikely pilots have the competency to operate each aircraft within the generalized class. Therefore, the FAA is not establishing classes within the powered-lift aircraft category but will require pilots to be type rated for each specific powered-lift aircraft. However, if the FAA finds that there are sufficiently similar designs between two different powered-lift aircraft, the FAA may permit pilots to share a single type rating and operate both aircraft.

The FAA is also proposing pilots who work for the aircraft manufacturers that obtain experience operating powered-lift aircraft through test flights and crew training activities, serve as the initial class of flight instructors to certify new pilots for each new powered-lift aircraft.

Importantly, the FAA confirms that its proposal for pilot training would conform to the International Civil Aviation Organization requirements, to enable U.S. pilots to operate in other countries.

Aircraft Operations

Since the FAA's current regulations do not specifically apply to the operation of powered-lift aircraft, the FAA intends to apply specific subsections of Parts 43 (Maintenance Rules), 91 (General Operating Rules), 97 (Standard Instrument Procedures), 135 (Commuter and On-Demand Operations), and 136 (Commercial Air Tours) to maximize the operational flexibility, while also maintaining safety, of powered-lift aircraft operations. Essentially, the FAA intends to apply helicopter operating rules when the aircraft acts as a helicopter, by utilizing vertical landings and take-offs, and apply fixed-wing operating rules when acting as a fixed-wing aircraft, such as utilizing horizontal cruise flight. For example, depending on how a powered-lift aircraft will

land, the FAA will apply differing directional turn requirements in Class G airspace found in 14 CFR § 91.126(b): Requiring left turns pursuant to § 91.126(b)(1) for wing-borne mode, and requiring the avoidance of fixed-wing aircraft pursuant to § 91.126(b)(2) when operating in vertical-flight mode.

However, despite the ability of powered-lift and VTOL aircraft to operate as a helicopter, not all helicopter operating rules will apply. Since the aircraft is able to cruise at high speeds like a fixed-wing aircraft and will likely lack the ability to maneuver around obstacles like a helicopter, the FAA is seeking to prevent the powered-lift aircraft from taking advantage of certain operational exemptions that would apply to helicopters. For example, powered-lift aircraft will not be able to operate under Visual Flight Rules at the lower weather minima afforded to helicopters under §§ 91.155 and 91.157.

Conclusion

While the FAA's regulatory framework surrounding the operation of powered-lift aircraft will need to maintain its flexibility as manufacturers develop new aircraft designs, the issuance of this NPRM is a significant step toward the use of powered-lift aircraft for commercial operations. Manufacturers and potential operators of powered-lift aircraft should review the NPRM carefully and be prepared to provide the FAA with comments on how its proposed rules may impact the future designs and use of the aircraft by August 14 via www.regulations.gov in docket FAA-2023-1275.

This alert provides a brief overview of the FAA's NPRM regarding the operation of powered-lift aircraft and is not intended to be comprehensive. If you or your company have any questions about the ongoing evolution of powered-lift regulations and guidance please contact Alexander T. Marriott, James Janaitis, Trey Range, or another member of Baker Donelson's Aviation and Aerospace Team.