AASF Safety Spot – September 2024

Special VFR – A Review

A fatal accident occurred near St. Mary's airport on September 16, 2024. According to the news article, the aircraft crashed about ½ mile from the end of the runway while operating under Special VFR. Reported weather was around 300 overcast with about 2.5 miles of visibility. The crash occurred at about sunset, approximately 2200 local. The article went on to mention a second fatal accident that had occurred with the same company while operating under Special VFR in 2020. The Anchorage Daily News article describing the 2020 accident is located at this link. The NTSB final report of the 2020 accident is located at this link ANC20FA017 . AASF offers this review of Special VFR as a refresher to our membership. It is not intended as a critique of the aforementioned accident or any other accident.

Regulations: Special VFR weather minimums are described in Part 91.157 and basic VFR weather minimums are described in Part 91.155.

Part 91.157(a) tells us where we can use special VFR: Below 10,000 feet MSL, within the lateral boundaries of controlled airspace designated to the surface for an airport.

Part 91.157(b) tells us Part 91 pilots can utilize Special VFR during the day if we meet three conditions: (1) we must have an ATC clearance; (2) we have to remain clear of clouds; (3) and, except for helicopters, we need at least 1 statue mile visibility. There are additional requirements for Special VFR at night; (4) the pilot must be instrument rated and current in accordance with Part 61 and the aircraft equipped for instrument flight as required by Part 91.205(d).

Questions, Questions: If a discerning pilot carefully reads Part 91.157, a number of questions are likely to arise. I've outlined a few of those questions and answers below.

Q1. Special VFR only applies within the lateral boundaries of an airport that has controlled airspace to the surface, but most of the airports in Alaska are non-towered and lack radar coverage. Right?

A1. Correct.

Q2. Since most of Alaska lacks radar coverage to the ground and there's only a handful of towered airports in the whole state, what is meant by controlled airspace to the surface?

A2. If an airport has an instrument approach, typically there's Class E airspace "protecting" the procedure. In the absence of radar or a tower, ATC exercises control of the airspace through procedural means. At a destination with no tower or radar coverage, if ATC has cleared IFR traffic for an approach into, or departure from, an airport, Special VFR or additional IFR requests are usually denied until the inbound reports on the ground and clear of the runway or the outbound confirms they are airborne and clear of the airport. This is sometimes referred to as "one in, one out."

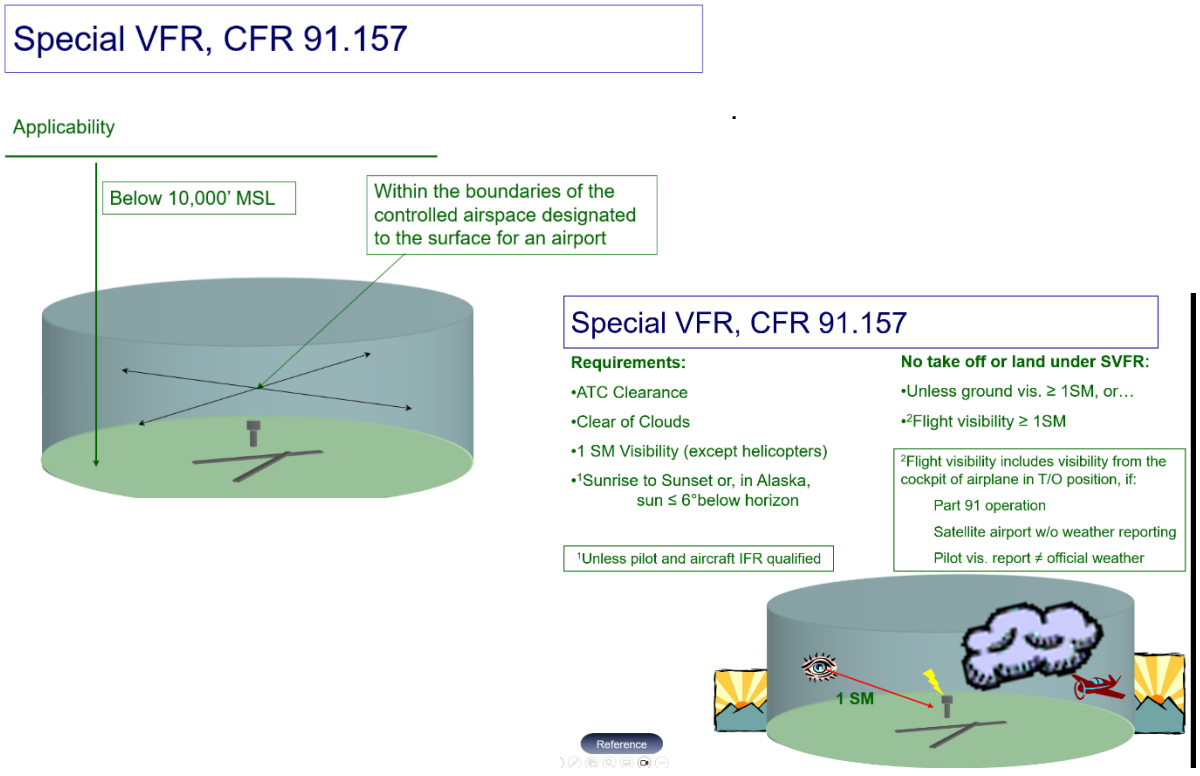
Q3. Alaska has an abundance of non-towered airports located in Class G without approaches or Class E protection. Is Special VFR an option?

A3. By definition, ATC does not exercise control in Class G airspace. A pilot must comply with Part 91.155 Class G VFR minimums in uncontrolled airspace. During daylight hours and below 1200 feet AGL, remain clear of clouds and maintain a minimum of 1 statute mile visibility. This is exactly the same cloud clearance and visibility required for Special VFR during the day in controlled airspace.

At night Part 91.155 Class G minimums are 3 statute miles visibility, and cloud clearance of 500 feet below, 1000 feet above, and 2000 feet horizontal. Whether or not a pilot can adequately determine this visibility and cloud clearance on a dark night is an open question.

Q4. If my Class G weather minimums below 1200 feet AGL are the same as Special VFR minimums, why would I ask for ATC clearance for Special VFR?

A4. Outside of radar or ADS-B coverage, ATC would have no way of knowing you are in the airport boundary or surrounding Class E airspace unless you contact them. Therefore, you may be endangering an IFR inbound or outbound flight. Remember, as soon as you intrude on Class E airspace, your VFR weather minimums are 3 statute miles of visibility and 500 feet below, 1000 feet above and 2000 feet horizontally from clouds.



Q5. Special VFR isn’t something ATC automatically assigns; a pilot must request it. So, how would a pilot determine if they should ask for a SVFR clearance?

A5: A pilot should realize all SVFR conditions are not created equal and assess the conditions according to the environment and their experience, currency, and comfort level. SVFR conditions of a 1,000' ceiling and 10 miles visibility over the tundra is very different than a 2,000 foot ceiling and 2 miles visibility near mountains.

Final Thoughts: Special VFR is a tool to be used sparingly—typically to get a plane on the ground when it is safer than other options like diverting or trying to pick up an instrument clearance while close to the ground with poor visibility. If during the planning process the current and forecast ceilings and visibilities are so low as to likely require the use of Special VFR at the departure or destination point, you may want to reconsider. Additional environmental factors like fading daylight, an approaching front, or time pressure should set off loud alarm bells. Special VFR exists for a reason, but it isn’t something we want to use often or without recognition of the hazards that accompany its use. Adequate preflight planning, staying on the ground, or finding an alternate with better weather may be options with the safest outcomes.