Heli Weather
Decision Making

There's evidence that some air transport helicopter operations are carrying out Part 135 operations using the less stringent Part 91 weather minima. Is it ignorance? Pressure to make a dollar? Either way, it's contributing to a high accident rate in the rotary sector.

Recent occurrences have shown that pilot knowledge regarding weather minima is a bit hazy. Confusion exists around the applicability of weather minima under Parts 91 and 135, and the conditions attached to a Special VFR clearance.

Here's a potential scenario:

> You're flying from Christchurch to Rangiora to pick up a wedding party and take them to a lodge for their reception. You fly out to them in marginal weather under Part 91, but what do you do after you land?
>
> (a) Decline the flight because with passengers you're now a Part 135 pilot and the weather is below minima?
>
> (b) Continue to fly the passengers because you set out under Part 91?
>
> (c) Because you have passengers, you are now flying under Part 135, but you have a bona fide reason to continue flying?

If you picked (b) or (c), think again. When transporting fare-paying public, stricter minima under Part 135 apply.

"I'm very aware that many, many rotary operations are flying passengers VFR in weather that, under Part 135, would prohibit them from doing so," says Mitch Jones, CAA Flight Operations Inspector.

"It's quite simple. When you're carrying passengers, you cannot fly lower than 500 ft agl, nor with a cloud base of less than 600 ft agl.

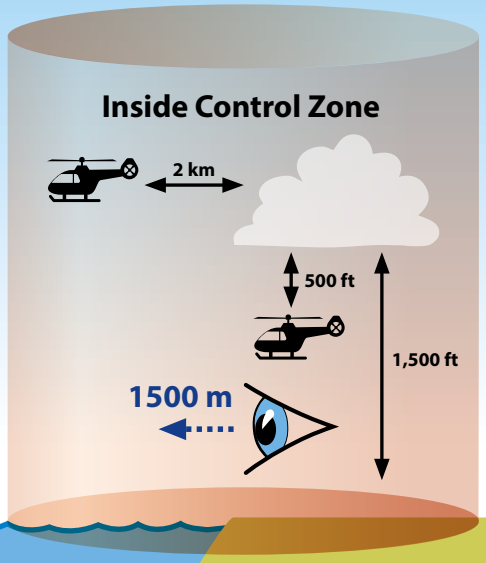
"Additionally, operations under Part 135 must maintain the 1500 metres visibility. In terms of legality, that's just as important as the cloud base," says Mitch.

Even if weather is suitable for flying under Part 135 on departure, if visibility deteriorates during flight – say, due to rain – then you'll need to put your plan B into action. A number of catastrophic accidents have occurred as a result of 'press-on-itis' – the pilot's reluctance to abort their plan A in deteriorating conditions.

Part 135 Helicopter VFR Met Minima

SPECIAL VFR

Less than 600 ft ceiling and less than 1500 m visibility if the helicopter is operated at a speed that will give adequate opportunity to observe other traffic or any obstructions in order to avoid collisions. Applicable to the control zone **only**.



If you do breach the minima, you'll need to fill out a CAA Section 13A form and let the CAA know as soon as possible. The 13A must be completed by the pilot-in-command, or the operator of an aircraft, to report a breach of a civil aviation rule.

"But don't think of the 13A as a 'get-out-of-jail-free' card. All 13A forms submitted are scrutinised," Mitch continues.

"Also, if you get caught out by changing weather, flying VFR above the clouds should always be the last resort. You can fly VFR above cloud only if the cloud is scattered (up to three to four oktas, providing plenty of opportunity to see the ground). If the cloud is broken or overcast, then VFR above cloud isn't even an option."

Bona Fide Low Flying

"If you are carrying fare-paying passengers under Part 135 on commercial transport operations, you cannot fly lower than 500 feet above ground level unless you have a bona fide reason or an emergency," says Jason Frost-Evans, another CAA Flight Operations Inspector.

"It's also important to remember that the minimum heights for VFR are quite separate from the weather requirements.

"Actual bona fide situations that require low-level flying don't trump the need to comply with weather minima.

"And conversely, a change in weather conditions in-flight is never a bona fide reason for low flying. If you have a bona fide reason, there's formal planning, risk assessment, and notifications involved."

An example of a bona fide Part 135 operation requiring flight under 500 ft could be a powerline inspection or photography flight.

"A good test to determine if the activity requires bona fide low-level flying, is to ask yourself, 'if it was a perfect day, could I conduct the operation above 500 feet?' Weather shouldn't be a determining factor."

Special VFR Control Zone Only

Special VFR is a tool air traffic controllers (ATCs) have at their disposal to get pilots in and out of a control zone when weather conditions fall below visual meteorological minima. It can be used in the day only, and is subject to ATC discretion.

However, the special VFR clearance applies to the control zone **only**, where controllers can take responsibility for aircraft separation.

Mitch Jones says, "We see examples of pilots who continue to fly under special VFR outside of control zones. The special VFR clearance doesn't absolve the pilot from complying with the required Part 91/135 minima after leaving the control zone."

Part 91 Operations

Pilots flying below 1000 ft agl, and 3000 ft amsl under Part 91, can fly clear of cloud and in sight of the surface while outside controlled airspace (provided they comply with the minimum height rules). But as the saying goes, "there's nothing as useless as the sky above you".

"We have a culture of people flying low, and it's a huge issue," says Mitch.

"Why do pilots insist on flying around in beautiful weather in single engine machines at 501 feet? At that height, there's not a lot of fudge factor. If the engine quits, there isn't much time to make decisions and plan your escape route, or set the aircraft up for the emergency. Consider that helicopters can take up to 1500 ft of autorotation before the autorotative forces become fully established on the aerofoils." ■