

Experts issue a good report for Swiss Post and Matternet - drones to take off again

23-01-2020

Starting 27 January, Swiss Post and Matternet will again be transporting laboratory samples via drone. The first location to restart operations will be the Ticino EOC hospital group in Lugano. The decision comes after Swiss Post and Matternet grounded drone operations in May 2019 and initiated an investigation by independent aviation experts on the safety processes of the drone operations. After concluding their investigation, the experts have certified that Swiss Post and drone systems developer Matternet are upholding a high standard of safety. The experts are providing four recommendations. Swiss Post and Matternet have already started to implement them.

Swiss Post and drone systems developer Matternet will again be transporting laboratory samples by drone as part of regular ongoing hospital operations, restarting 27 January 2020. The Ticino EOC hospital group in Lugano will be the first location to restart flight operations. Important lab samples carried by drone will arrive at their destination in Lugano up to 45 minutes faster than when using road-based couriers.

Swiss Post and Matternet decided to ground operations after two incidents in 2019. Swiss Post set up an independent board of experienced aviation specialists. Over the past five months or so, the board has critically examined operations and safety processes. The experts received a comprehensive insight into Matternet's processes and documents.

Experts certify a high level of safety

In December 2019, the expert board concluded its investigations. It has essentially issued a good report for Swiss Post and Matternet: "We certify that Swiss Post and Matternet maintain high safety standards and a high level of safety awareness. The processes that were examined were at a high standard even before the incidents. There are

no reasons why flight operations should not be resumed", says Prof. Michel Guillaume, Head of the Centre for Aviation at the Zurich University of Applied Sciences (ZHAW) and a member of the expert board.

Experts provide suggestions for improvement

In order to boost safety even further, the experts are providing four recommendations:

Matternet should implement the directives of the Federal Office of Civil Aviation (FOCA) and the Swiss Transportation Safety Investigation Board (STSB) which were set out after the incident on 9 May 2019. These changes have already been made. Additionally, Matternet has made further improvements to its drone system over recent months. For example, the flight system has been adapted to increase stability and robustness in windy conditions. The measures that have been implemented go beyond the safety recommendations of the FOCA and STSB.

Swiss Post and Matternet should establish an independent oversight body by the end of March 2020 to monitor safety-related processes.

Swiss Post should have more control over drone operations. For example, Swiss Post

should have a right to information from Matternet and the right to perform an audit on the drone operator.

Matternet should further strengthen its own existing safety processes, for example by recruiting a Head of Safety, as is common practice in commercial aviation.

Swiss Post and Matternet have already introduced steps to implement these recommendations. For example, the expert board will continue to independently advise Swiss Post on drones. Matternet has already hired a Head of Safety who will assume duties in February, complementing the company's existing internal Safety Board.

Parachute landings – a key safety measure

Even if the standards of safety precautions are high, there is no such thing as zero risk in aviation. In order to keep the remaining risk as low as possible, the drone will make controlled parachute landings if the drone

deviates from specified default values. "These criteria are clearly defined. For example, the air corridor in which the drone is allowed to fly is part of a safety concept that has been developed together with the FOCA. Parachute landings are a key safety mechanism. For this reason, they're part of operations and they will continue to occur in the future", says Prof. Michel Guillaume.

Swiss Post is breaking new ground in the field of unmanned transport aviation: Matternet and Swiss Post are establishing standards along with responsible authorities and customers, thus contributing to technological development in Switzerland and worldwide. The modified drone system has completed over 2,000 test flights in Switzerland since May 2019 and flown over 17,000 kilometres. This equates to over 13,000 flights between the two hospital facilities in Lugano.

Source: [Swiss Post](#)