



## Iridium Proposes a New Model for Monitored BVLOS UAS Integration in the National Airspace System

*Flight trial-based data analysis illustrates challenges to BVLOS operations can be overcome*

MCLEAN, Va., June 20, 2023 /PRNewswire/ -- [Iridium Communications Inc.](#) (NASDAQ: IRDM) has announced the results of an Uncrewed Aircraft System (UAS) flight trial highlighting Beyond Visual Line of Sight (BVLOS) capabilities in the National Airspace System (NAS), with a published a whitepaper titled "[Monitored BVLOS: A New Model for UAS Integration in the National Airspace System](#)." The whitepaper highlights and solves for challenges faced in enabling a safe, scalable, and efficient adoption of UAS in the NAS, including how to maintain safe separation of aircraft and what supportive Commercial Off-the-Shelf (COTS) avionics are readily available.

As part of the flight trial, a Remote Pilot-in-Command (RPIC) drone equipped with Iridium Connected® COTS avionics, identified an intersecting aircraft at five Nautical Miles (NM) of separation with a closure rate of 300 knots. The RPIC successfully performed a BVLOS evasive maneuver in less than 18 seconds from detection to completion, maintaining two NM of separation with nonidealized operations.

Based on this flight trial conducted in partnership with [American Aerospace Technologies Inc.](#), Iridium confirmed that a simplified Minimum Equipment List (MEL) could enable an RPIC to safely monitor a mission, communicate with air traffic control, and ensure safe Instrument Flight Rules (IFR) separation from other aircraft. The results also showed that BVLOS operations are ideal for Class E airspace, as it presents a greatly reduced risk of encountering other crewed Visual Flight Rules (VFR) aircraft. The analysis was completed following the trial flight of a 220-pound, medium altitude, fixed-wing aircraft, known as the [AiRanger](#), over agricultural land near Bakersfield, California.

The flight trial provided needed data regarding how RPIC operations and procedures inform decision-making, how long maneuvers take to complete over BVLOS communication links, and as a result, the ability to maintain safe separation. With these points in mind, the whitepaper suggests a simplified Federal Aviation Administration (FAA) BVLOS waiver process inclusive of the recommended MEL and provides a proposed template for consideration.

"With a standardized and simplified BVLOS waiver process, we are confident the drone industry could take advantage of the proven and now recommended MEL," said John Peterson, Executive Director of Aviation, Iridium. "Applying a BVLOS MEL in Class E airspace when flying in low-density population or rural or remote areas would be a great step toward dramatically increasing innovation and operational efficiency."

"The Iridium network opens the door to a variety of new use cases for UAS that can be remotely piloted from a distant command center," said David Yoel, Founder and CEO, American Aerospace.

During the test flight, the team also studied latency, ADS-B distribution, and continuity of communications between satellite, LTE and 900 Mhz Line-of-Sight (LOS) radio links. It was found in this specific location – 1,500 feet above ground level – the reliability of Iridium® satellite communication was superior to the LTE link, and the RPIC preferred the aircraft command responses over satellite communication versus the 900 Mhz LOS radio.

Expansion of this flight trial using a broader range of equipment and scenarios that further enhance an MEL – as well as a more efficient waiver submission process – could present certification agencies and operators with a scalable path forward for monitored BVLOS operations. The results of the test flight demonstrate that a segment of the drone market could successfully scale in linear inspection with fixed-wing aircraft in rural and remote regions, bringing faster innovation in technology and realized efficiency to the respective industries they serve.

For a copy of Iridium's BVLOS whitepaper, visit: [www.iridium.com/monitored-bvlos-safe-separation-whitepaper/](http://www.iridium.com/monitored-bvlos-safe-separation-whitepaper/)

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Iridium® is the only mobile voice and data satellite communications network that spans the entire

Iridium® is the only mobile voice and data satellite communications network that spans the entire globe. Iridium enables connections between people, organizations and assets to and from anywhere, in real time. Together with its ecosystem of partner companies, Iridium delivers an innovative and rich portfolio of reliable solutions for markets that require truly global communications. The company has recently completed its next-generation satellite network and launched its new specialty broadband service, Iridium Certus®. Iridium Communications Inc. is headquartered in McLean, Va., U.S.A., and its common stock trades on the Nasdaq Global Select Market under the ticker symbol IRDM. For more information about Iridium products, services and partner solutions, visit [www.iridium.com](http://www.iridium.com).

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