Skykraft Satellite Filings Published for 2976-Satellite Air Traffic Management Constellation

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Skykraft has moved one step closer to providing global space-enabled ADS-B and VHF communications services in 2026 with acceptance by the International Telecommunications Union of its spectrum filing for a constellation of 2976 satellites. The constellation will provide the world's first full-service space-enabled air traffic management service and will make aviation safer and more sustainable, efficient, and resilient.

Building on the 10 prototype satellites launched and tested in 2023, Skykraft will launch further pre-production satellites in 2024. In 2025, the rollout of the operational constellation will begin with the launch of 50 more satellites, leading to an operational service in 2026. The number of satellites will continue to grow in following years.

Skykraft has been working with air navigation service providers for three years to ensure that space-enabled air traffic management services meet their requirements. Skykraft demonstrated the use of space-enabled VHF during 2023 in a joint trial with Airservices Australia. This trial leveraged Australia's unique remote location and Skykraft's a VHF payload in Skykraft's satellites, demonstrating for the first time the feasibility of direct communication between satellites and aircraft using their currently installed radios.

Skykraft is supporting the work of the International Civil Aviation Organization to adapt existing international standards to allow access to space-enabled services. The ITU spectrum filing process builds on the recent approval by the World Radio Congress for the use of VHF aeronautical frequencies from space.

Voice and data radio communications in the VHF band are used for communications between pilots and air traffic controllers. VHF radios are standard aircraft equipment around the world and are vital in ensuring the safety of air travel. The use of satellites to complement ground-based radio systems will enable seamless global real-time communications between pilots and air traffic controllers for the first time.

Skykraft's VHF communications service is complemented by a surveillance service that uses position broadcasts from aircraft to provide timely data on aircraft positions to air traffic controllers.

The use of space-enabled services supporting pilots and air traffic controllers:

- Improves safety by providing real-time communications between pilots and air traffic controllers to maintain correct separations between aircraft.
- Supports the air transport industry's goal of net-zero emissions through reducing environmental emissions by allowing the most efficient routes to be flown by aircraft.
- Increases efficiency of the aviation industry by reducing fuel consumption and reducing flight delays. The cost of flight delays in the United States, Europe and Australia has been estimated at US$67.5 billion per year.
- Increases the resilience of air traffic management systems by providing very high levels of redundancy not previously seen in aviation. Skykraft's services will enable continued high-performance management of air traffic even when current satellite navigation systems are degraded or unavailable.

"Skykraft looks forward to using this filing to contribute to global goals to improve safety, sustainability, efficiency and capacity in aviation" said Dr Michael Frater, CEO of Skykraft. "Skykraft's space-enabled air traffic management services will be available for testing in 2025 and operational service in 2026. This service will bring significant benefits to oceanic and remote regions will improve performance in the world's most congested airspace."

Skykraft's Air Traffic Management Constellation

Skykraft is in the process of building a large (dense) constellation of satellites in low-earth orbit to provide global air traffic management services from space, providing:

Related Sectors:

Transport & Logistics ::

Related Keywords:

Aviation :: Aerospace :: Satellite :: Skykraft :: Surveillance :: ANSP :: Global :: ATM :: ADSB :: VHF :: Data :: Communications :: Services :: Transport :: Infrastructure ::

Scan Me:

- VHF voice communications.
- VHF data communications.
- Surveillance services using ADS-B and UAT.
- Multi-lateration services for:
    - validation of ADS-B and UAT messages received from aircraft, and
    - independent aircraft position data in the event of GNSS failure.

Skykraft's initial constellation will enter service in 2025.

About Skykraft

Skykraft delivers Air Traffic Management (ATM) services from space to serve the global market for air traffic surveillance and communications, especially over remote and oceanic regions. Headquartered in Australia, Skykraft uses a small satellite approach and dedicated ATM infrastructure to deliver services to Air Navigation Service Providers (ANPSs) worldwide.

Our ATM Service introduces competition into a monopoly market and will reset the performance expectations globally for space-enabled ATM.

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