The Fight Against Fire Flightcell's DZMx

Flightcell is enabling aerial firefighting operators to tackle fires as efficiently and safely as possible by staying ahead of the technological curve. Achieving cellular and satellite connectivity from the cockpit at 4,000 feet might have once seemed like a daunting task for service providers, especially in remote locations. As technology has progressed, not only have satellite and cellular connections become possible in aircraft, but pilots can now access voice, data, and aircraft tracking software simultaneously from one piece of hardware. The hardware in question, the Flightcell DZMx, is produced by Flightcell International of Nelson, New Zealand, and is the company's flagship product. With over 20 years' experience and product leadership in satcom technology, Flightcell provides product solutions across a range of industries, including air medical, search and rescue, law enforcement, military, and aerial firefighting. The DZMx is installed worldwide, primarily in North America, Europe, and Australasia, targeting the larger turbine rotary airframes that are operated in these sectors.

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Flightcell has proudly

"The Flightcell DZMx is unlike any other product in this area because it's a product platform, not a product," said Shawn Deaker, Key Account & Sales Manager at Flightcell. "The DZMx has over 60 different product variants and configurations that customers can order; we built it specifically like that, so it is flexible and future proof." A firefighting aircraft, for example, may require additional inputs to report bucket loads during operations – such flexibility and customisation is a reality with the DZMx.

A Solution for Aerial Firefighting Operators

The DZMx is the world's smartest, lightest, and smallest Satellite and Cellular system for aviation in the market, and has been long utilized through the fleets of the likes of Erickson, CAL Fire and Kestrel. With DZMx installed, full coverage is always available. Voice and data are transmitted over satellite networks, via Iridium satellite when in remote locations, and cellular networks when in range. Handover between cellular and satellite is automatic and seamless for tracking purposes. This makes for significant cost savings compared to satellite-only transmission. Further costs savings can be made as the DZMx is an unlocked product. Unlike other products, with DZMx you can choose your airtime and mapping service provider and change to a different provider at any time.

The auto-switching coverage comes in handy in the aerial firefighting sector — especially in North America and Australia where Automated Flight Following requirements have been implemented. The DZMx is capable of tracking the exact flight path of an aircraft, the location and volume of water picked up (Load), released (Drop Start/ Stop), and the identification of the bucket, tank or additive being used, to name a few. Firefighting authorities and operators want to measure the amount and weight of water uplifted and send this data to base. "Apart from the obvious safety benefits, they are experiencing reduced pilot ➤





workload and receiving operational intelligence from the aircraft" says Deaker. After event data can even be used to reimburse landowners for the exact amount of water taken from their properties.

Product evolution is a key principle for the development team at Flightcell and some new connectivity options and integrations with other sensors have been implemented. In cockpit Wi-Fi and Bluetooth are now a standard option with all new Flightcell DZMx units. This allows seamless connectivity to the DZMx for smart devices and laptops when in the aircraft. There has very recently been support for the innovative Airborne Mission Systems AFDAU unit, which reads fully accurate weight, volume, and load information from tanks or Loadcell's and then transmits this information to your tracking software using the Flightcell DZMx.

Hitting the Mark

While continuing to grow, Flightcell is remaining focused on its ability to stay ahead of the technological curve and enabling operators in the aerial firefighting industry to do their jobs as efficiently and safely as possible. The people who design the hardware also provide the customer support - this has been key in securing Flightcell's premium position in the satcom marketplace.

"By not offering services, it allows us to focus on the hardware and the software inside the DZMx unit itself," said Deaker. "We feel we've got a unique and world leading product; it's quite unlike anything else." Testament to this is the long-term relationships Flightcell has created with its valued

clients and resellers, of which the company now has roughly 40 resellers promoting and selling its products worldwide.

"It took 10 years of research and development to create the DZMx, which was built on the success of our earlier DZM models," said Deaker. "In creating this satcom system, we spent a lot of time seeking customer feedback and using it to guide our design process. The current DZMx is very much the fruit of this collaboration between Flightcell International's engineers and our global client base, including our valued firefighting clients, Erickson, CAL Fire and Kestrel. The best part of the resulting satcom unit is that it is not only highly capable, but it is small, easy to install, and cost effective, whereby saving DZMx operators a lot of money by using cellular when it is available." Furthermore is the Flightcell DZMx firefighting solution is fully compliant, allowing operators to meet United States, Canadian and Australian AFAMS and AFF requirements. This provides assurance to existing and potential clients the DZMx is of the highest quality and exceeds compliance requirements.

Flightcell. DZMx



In the fight against fire the DZMx provides precise data, giving you the edge.

Flightcell's firefighting solution ensures there is constant communication between the aircrew and ground operations using satellite and cellular networks.

- Satellite and cellular voice integrated into your ICS
- Tracking & operational event data
- Onboard sensor integration
- Fully NAFC AFAMS & USFS AFF compliant
- Integrated ATU exceeds tank and bucket reporting requirements
- In cockpit Wi-Fi and Bluetooth
- Unlocked device choose your preferred airtime and tracking provider

USED BY:



Flightcell's DZMx in

action - the world's

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Cellular system for

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