

New test flight facility lets drone operators test tech in extreme conditions

DARWIN, NT - NORTHERN TERRITORY, AUSTRALIA, September 8, 2025 /EINPresswire.com/ -- A new drone test flight facility in the Northern Territory will give manufacturers the chance to test their technology in some of the most diverse terrain and extreme weather conditions in the world.

The North Australia Centre for Autonomous Systems (NACAS), based out of Charles Darwin University (CDU), has launched its Airspace Integration Research Facility (AIR-F), the only purpose-designed and built Unmanned Aerial Vehicle (UAV) test flight facility based in northern Australia.



The remotely located Airspace Integration Research Facility (AIR-F) is only three hours drive from Darwin International Airport.

AIR-F, located at CDU's Katherine Rural Campus, has access to more than 10,000 hectares of sparsely populated land with very low ground infrastructure and air traffic.

The airspace has been approved by the Civil Aviation Safety Authority for Beyond Visual Line of Sight operations and has cutting-edge communication technology.

Alongside testing, AIR-F has capacity for research and pilot training, and is available to Australian and international business, industry and researchers.

NACAS Director [Professor Hamish Campbell](#) said with UAV flights in Australia predicted to increase from 1.5 million to 60.4 million by 2043, AIR-F was well-positioned to become one of the nation's primary UAV facilities.

"Australia is investing heavily in the development of UAVs and Advanced Air Mobility in the Defence, civil and commercial sectors," Professor Campbell said.

"However, there are limited places in Australia for manufacturers to test out there emerging

technologies, with long wait times and high costs at Australia's established test flight facilities, which often play second fiddle to crewed aviation test flights.

"AIR-F is focused only on the testing of uncrewed aerial systems and offers an affordable solution to remote flight operations. Offering low ground and air risk and on-site accommodation, operations room, and maintenance facilities."

AIR-F's construction was funded through the Australian Government's TestLab pilot scheme, which is supported by the NT Investment Fund through NT Defence.

Professor Campbell said one of the key benefits of AIR-F and its location in the Northern Territory was the ability to test the technology in diverse and extreme conditions.

"From May to October, the weather is stable, there is no rain, and winds are light and predictable, allowing for very reliable flight conditions without weather-related cancellations," Professor Campbell said.

"While from November until April the weather is challenging featuring high rainfall and humidity, enabling flight testing under challenging poor air density conditions."

CDU Deputy Vice-Chancellor Research and Community Connection Professor Steve Rogers said AIR-F was an exciting opportunity for the University and the Northern Territory to be leaders in an evolving field.

"UAV technology is rapidly advancing, and AIR-F is the next step for NACAS and CDU to expand our impact in this space," Professor Rogers said.

"Our connections with Defence and the public and private sectors, our strategic location, and our infrastructure and capabilities position AIR-F to become a critical player in the UAV market.

"We are committed to being at the forefront of this innovation, and the launch of AIR-F also reinforces our commitment to strengthening our strategic position in the north and expanding the Northern Territory's capabilities nationally and beyond."

AIR-F's construction was funded through the TestLab for Aerospace scheme, which is supported by the NT Investment Fund and NT Defence.

Since its inception in 2022, NACAS has grown and made significant contributions to [industry-focused research](#) and training. NACAS research projects include using drones and artificial intelligence in the [detection of ghost nets](#) and using the technology in medical supply delivery.

NACAS has also conducted remote pilot training across the Northern Territory, particularly for rangers such as Anindilyakwa Land and Sea Rangers.

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