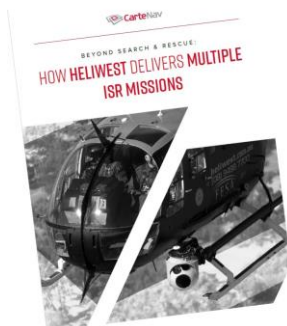


CLIENT	CarteNav Solutions
PROJECT	Case study: Heliwest
OBJECTIVE	Write a case study in article format describing Heliwest's experience with Carte Nav's AIMS-HD mission system software

COPY EXCERPT

Going beyond Search & Rescue: How Heliwest Delivers Multiple Missions with One Common ISR Mission System



Call or write CopyEngineer to receive a PDF of the complete case study.

Or view/download it online at: <https://cartenav.com/case-study/multi-mission/heliwest/>

In 2010, Australian helicopter operator Heliwest decided to compete for a large tender issued by Australia's Department of Fire and Emergency Services (DFES) for fire mapping in Western Australia.

To win the contract, Heliwest had to generate accurate, up-to-the-second maps showing the active fire situation. They also had to be able to communicate those maps in real-time to teams on the ground.

Critical systems include those requiring a high degree of dependability, including safety and security, and are typical of numerous industries, such as aerospace and defense, automotive, medical, energy generation and distribution, hazardous material management, and cybersecurity. The required maximum probability of failure in the most critical elements of these systems may be on the order of 10^{-7} to under 10^{-9} failures per hour.

The multi-role fire mapping solution

Fortunately, Heliwest had already been using AIMS-ISR by CarteNav Solutions for several years. AIMS-ISR is an ISR mission system software package that provides multi-role integration, geo-referenced moving maps, evidence reporting, SIGINT, custom mapping, and more.

"We had been involved with about four generations of AIMS at that point," says Tim Hand, Manager of Special Projects at Heliwest. "So, we were very familiar with what the software could do and quite confident it would fulfill the mission. AIMS-ISR was really the only viable option."

Heliwest won the contract and was fully operational in less than six months, ready to face the upcoming fire season. "CarteNav responded very quickly to our needs and provided great support, which allowed us to quickly become operational," says Hand.

Easy, efficient map generation

For fire mapping missions, Heliwest typically uses a WESCAM MX-15 gimballed EO/IR sensor and transmits maps to the ground via directional and omnidirectional datalinks. In the right environment, they can also use cellular links.

AIMS-ISR fully integrates with and controls the EO/IR gimbal. This integration allows the operator to map the fire accurately by steering the camera's boresight around the fire's perimeter. Map generation and transmission are easy and efficient thanks to AIMS-ISR's video overlay graphic tools and seamless integration of the stored map with the helicopter's inertial data, GPS, EO/IR sensor, and datalink.

"We can take sensor photos and video, accurately overlay known reference points, and send those out in bursts over our data comms system," says Hand.