

Pave Lows receive high-tech modification

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CRESTVIEW — Air Force special ops helicopter crews are once again on the leading edge of technology.

The Air Force and Lockheed Martin Federal Systems unveiled the newest modification to the MH-53J Pave Low III at a ceremony April 17 at Crestview Aerospace Corporation.

Hurlburt Field MH-53Js flown by the 20th Special Operations Squadron received the first application of the new capability, called the Interactive Defensive Avionics System/Multi-Mission Advanced Tactical Terminal or IDAS/MATT.

Considered the most advanced helicopter in the world, the Pave Low provides the long range airlift capability for special operations forces behind enemy lines, supporting SOF in day, night or adverse weather conditions, including resupply and combat rescue missions.

A color, multi-functional, night-vision compatible digital map screen is the most visible hardware in the system.

Located for easy viewing on the helicopter's instrument panel, the display gives an MH-53 crew a clearer picture of the total battlefield. The display provides infor-

mation that gives the crew instant access to real time events, including the aircrew's flight route, man-made hazards such as power lines and even enemy threats that are "over-the-horizon."

Beamed from a satellite to the helicopter's computer and then decoded for viewing on the cockpit display, the data from the screen provides a 3-D perspective of surrounding terrain, including contour lines and colorized elevation bands.

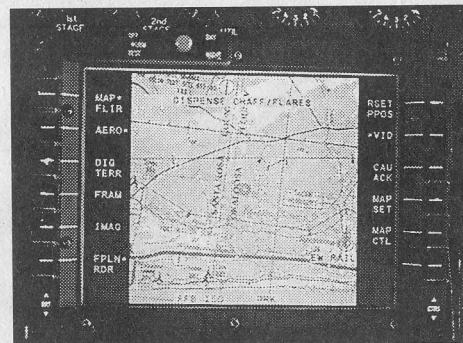
The data gives crews near real-time intelligence data while reducing their workload, said AFSOC officials.

"I can now see threats right in front of me, from towers and power lines to a surface-to-air-missile," said Lt. Col. Scott Schafer, an MH-53J Pave Low III pilot and chief of the aircraft acquisitions branch at Headquarters AFSOC.

In addition to the map display, the system also provides automated navigational data to crews, with a navigational display that provides digital course and bearing information with the push of one button.

The heart of IDAS/MATT, however, is advanced software.

The modification, for example, includes an integrated electronic warfare system. Infrared countermeasure controls, including



Pave Low digital map display

missile warning, radar warning and jammer inputs as well as chaff and flare countermeasures are now seen on one display. As part of the integration, crews will receive instant cautions and advisories on threats with immediate recommendations, including when to dispense chaff and flare countermeasures.

"With IDAS/MATT, if the computer senses a threat, it anticipates the threat with a direct action the crew can take," said Maj. Jeff Zak, MH-53J pilot and chief of AFSOC's rotary wing program. "For example, it will read, 'Missile launch, break left now!'"

"It takes all the countermeasures and tailors their actions to the specific threat encountered," Schafer added. "It will help me

stay out of trouble and adds a factor of survivability to the crew."

The entire system was designed with the crew member as a priority in consolidating a variety of functions, say Pave Low crews. Special attention was made to display visible instrument panel functions with easy console access while increasing the efficient flow of information.

"Everything is in the right place and easy to get to," said Zak.

In a battlefield situation, concise and near real-time information is perhaps an air crew's most reliable asset. With IDAS/MATT the probability of being detected by the enemy is greatly reduced.

"It gives me a situational awareness that no other aircraft has at this time," said Schafer.

The system provides air crews with a new level of readiness and efficiency, giving AFSOC the ability to respond even more quickly to requirements for the deep insertion and extraction of special operations forces, said Brig. Gen. Michael Wooley, AFSOC vice commander.

The greatest value in the IDAS/MATT modification for crews is enhanced situational awareness and threat avoidance ca-