

XPLORE

MISSION-EFFECTIVE AIRBORNE SWAP-C IMAGING RADAR



FEATURES

K-Band 2D array

Range of 1 NM

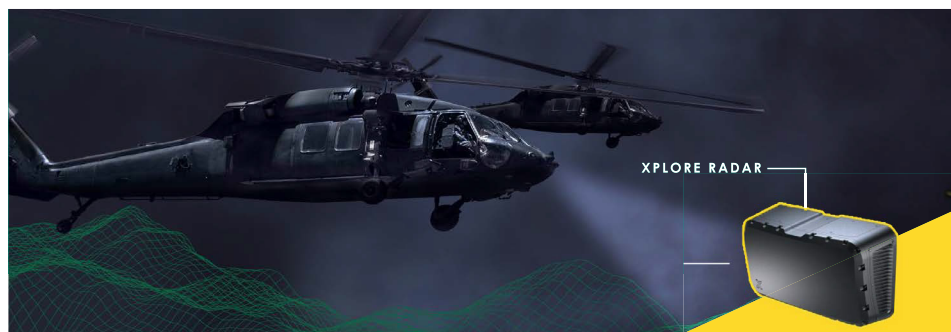
Wide FOV (100° x 50°, H x V)

Enables terrain following applications

Penetrates DVE (fog, dust, smoke, clouds etc.)

Moving targets detection

Supports mid-air collision avoidance



WHAT IS XPLORE?

Xplore is a low cost, low SWaP software-defined millimeter-wave (MMW) radar, designed for 3D terrain mapping and obstacle detection. Xplore, developed by Elbit America, leverages Commercial Off-The-Shelf (COTS) technology to provide a high resolution, high-frame rate, multi-mode, 4D imaging solution, which improves pilotage capabilities in Degraded Visual Environment (DVE) conditions (fog, dust, smoke, clouds, low-light etc.)

Xplore augments standard NVG or FLIR imagery with terrain and obstacle 3D symbology and improves situational awareness and flight safety.

Improve mission success probability with high-fidelity terrain imaging and obstacle data, fused with a Synthetic Vision System (SVS) and 3D conformal color symbology.



ELBIT AMERICA'S VERTICAL LIFT TEST BED



Xplore



Processing Unit



X-sight

Or



HDTs

OPERATIONAL BENEFITS

- Improved situational awareness
- Allows the pilot to perform Nap-Of-the-Earth missions in full degraded-visibility environments (DVE)
- Improves mission effectiveness and flight safety
- Provides intuitive augmented symbology and imagery
- Reduces spatial disorientation
- Supports navigation in GPS denied areas

SYSTEM ADVANTAGES

- No mechanical scanning
- Seamless integration with DVE systems
- Compatible with the world's leading HMDS
- Full scalability and upgradability
- Low SWaP, low maintenance

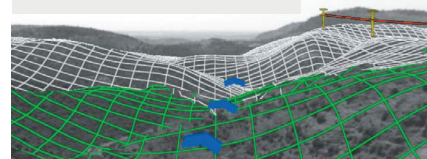
OPERATIONAL MODES

The Xplore radar updates the 3D terrain map database to create a high-fidelity terrain map (white and green grid respectively in the images below).

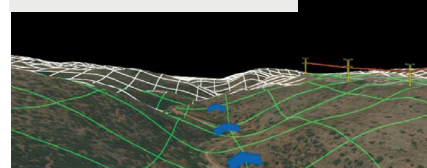
SEE-THROUGH MODE



AUGMENTED REALITY MODE



SATELLITE IMAGE MODE



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