Hazardous Weather Detection & Display Capability (HWDDC)

The HWDDC extracts real-time task-specific weather information from tactical scans of existing long-range air-search radar

Background

HWDDC/TEP (Tactical Environmental Processor) is a Weather Radar Through-the-Sensor (WRTTS) technology that contributes to mission areas that involve the launch and recovery of aircraft at sea, navigation and small boat operations by providing near real-time weather information to ship’s personnel. These mission areas include amphibious warfare, anti-air warfare and anti-surface warfare.

By providing ship’s personnel with weather information specific to these mission tasks, the operational benefit of the HWDDC/TEP ultimately is safer and more efficient aircraft and small boat launch/recovery operations.

The Technology

The AN/SPS-48E is a 3D (range, bearing, and altitude) long-range air search radar installed onboard all CV/CVN, LHA/LHD, and LPD-17 class ships. The HWDDC extracts and displays weather radar information from the tactical scans of the AN/SPS-48E radar. This allows Naval ships the ability to have near real-time capability to detect, locate and display hazardous weather phenomena without impacting the operational mission of the radar.