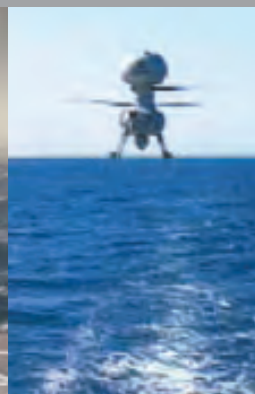


UCARS-V2

UAV COMMON AUTOMATIC RECOVERY SYSTEM – VERSION 2
FOR SHIPBOARD OPERATIONS

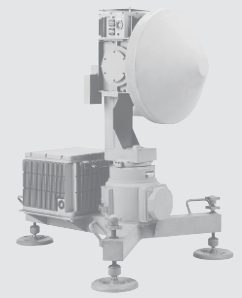


SIERRA NEVADA CORPORATION'S (SNC) UNMANNED AERIAL VEHICLE (UAV) COMMON AUTOMATIC RECOVERY SYSTEM – VERSION 2 (UCARS-V2) PROVIDES PRECISION AUTOMATIC LAUNCH AND RECOVERY CONTROL DURING SHIPBOARD OPERATIONS WITH ROTARY WING AND/OR FIXED WING UAVS. THE UCARS-V2 PROVIDES PRECISION APPROACH, GUIDANCE, AND CONTROL ALL THE WAY TO TOUCHDOWN IN ADVERSE WEATHER CONDITIONS. UAV EXTERNAL PILOTS ARE NO LONGER REQUIRED. THE UCARS-V2 HAS BEEN DESIGNED FOR SUSTAINED OPERATIONS IN THE SHIPBOARD ENVIRONMENT. THE UCARS-V2 HAS ITS OWN SHIP MOTION STABILIZATION EQUIPMENT AND DOES NOT REQUIRE GPS OR POSITION INFORMATION FROM THE SHIP.



UCARS-V2

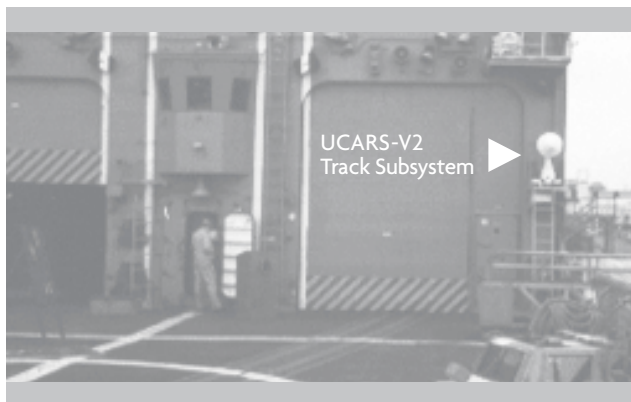
UAV COMMON AUTOMATIC RECOVERY SYSTEM – VERSION 2
FOR SHIPBOARD OPERATIONS



FEATURES

General

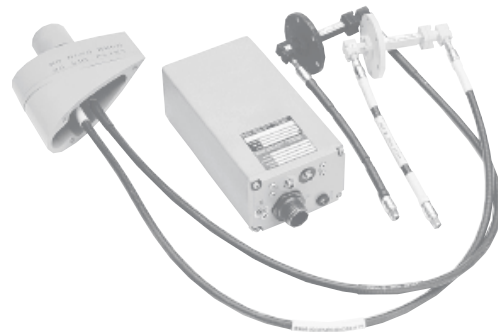
- Performs takeoff and recovery in bright sunlight, fog, rain, at night and in most sea conditions
- Flexible architecture for integration with any shipboard or land-based UAV system
- 35 GHz airborne subsystem-to-track subsystem communication is difficult to jam and detect
- Practical and proven technology for deck motion stabilization without external position information or local GPS
- Comprehensive BIT, straightforward troubleshooting, corrective maintenance in less than 30 minutes
- Common interfaces across ground control stations and UAVs
- High reliability and availability with minimal preventive maintenance
- Meets strict shipboard and airborne E3 requirements (Mil-Stds-461 & 464)
- No special equipment required for operation or maintenance
- Fast position update rates with minimal lags
- Interfaces with NATO STANAG 4586



Typical Shipboard Installation

Airborne Subsystem

- Provides point source for precision tracking
- Approximately 3.5 pounds (1.6 kg)
- Transponder dimensions: 2.50" x 3.68" x 7.81" (6.35 cm x 9.34 cm x 19.83 cm)
- Antenna assembly contains omni-directional and directional antennas
- Requires 28 VDC aircraft power at 25 watts



Airborne Subsystem Components

Track Subsystem

- Locates and tracks airborne transponder
- Built to survive in topside environment
- Supports flight deck or pedestal installation configuration
- Small footprint (32" x 39" x 42" - 44") (81.28 cm x 99.06 cm x 106.68 - 111.76 cm)
- Integrated state-of-the-art ship motion sensor (Does not require ship's GPS data)
- Ship motion sensor initialization in less than six minutes
- Boresight camera provides real-time UAV approach information to ship's command and control operator
- Compatible with ship's power – UPS recommended