OFIL SYSTEMS >>*Makes UVisible*

ORSOLAR-AIR

OIL-SPILL REMOTE SENSING OFFSHORE LOCATING AND RECORDING SYSTEM

ORSOLAR-air is an airborne encapsulated compound imager cradled in stabilized gimbal payloads dedicated to provide visual information about existing oil spill incidents. ORSOLAR-air conceives oil spots through their solar UV reflections and emitted thermal differences, and can define floating slicks and sheens of oil spill incidents. ORSOLAR-air incorporates a selection of high-end sensors with complementary capabilities, supplying data about oil spill boundaries, location & hints about their thickness. ORSOLAR-air is a major player in handling cases of spill by transmitting valuable information from nearby and distant hard to get areas. The reliable on-time information provided by ORSOLAR facilitates speedy response actions. ORSOLAR-air can detect sheens as thin as 0.1µm and show clearly their boundaries with water. Ofil's ORSOLAR-air is a premium choice for detecting marine oil spills and offshore pipelines' leaks. Findings are also valuable during cleaning actions and are used to evaluate dispersant operations and efficiency. Recorded data is valuable for long term analysis and to formulate guidelines. ORSOLAR-air is configured for gyro stabilized gimbal payloads of sizes and mounts that match most aircraft. Developed by Ofil, the worldwide expert in detecting and imaging ultraviolet.

- >> Real time information
- >> Information about location, size & spread of spill
- >> Detecting thin & thick layers of oil
- >> Assessing clean-up efficiency
- >> Fit for Fixed & Rotor wing aircraft
- >> HD video recording of findings
- >> Compound solution with optional sensors
- >> UV + IR + TV + Laser + Photo

REAL TIME

Airborne sensors are necessary for detailed oil spill analysis. Ofil's ORSOLOAR-air is dedicated to remote sensing providing real-time information necessary to detect marine oil spills, and effectively responding early and rapidly to this kind of an incident.

ESSENTIAL INFORMATION

ORSOLAR-air's high sensitivity sensors enable detection of oil spills from afar and nearby during high speed flight of 150 knots at 1000ft. The compound system includes a combination of sensors that assist in modeling the spread of an oil spill and assist in handling cleanup operations.

REFLECTED SOLAR RADIATION

ORSOLAR-air uses passive UV & IR sensors that capture the solar radiation reflected by the sea surface and thermal differences. Oil has stronger reflectivity than water in the UV region, and a lower emissivity than water in the thermal IR region. Thin oil layers of 0.1 micron can be detected by ORSOLAR-air.

DOCUMENTATION

ORSOLAR-air supports data management systems by recording and storing findings. The information obtained can be integrated into existing data management systems and used to evaluate, analyze and formulate guidelines.

COMPOUND SOLUTION

Multiple sensors can provide the essential information necessary for effective oil spill management. ORSOLAR-air provides information about the location and spread of spills over large and small areas and indirect hints of their thickness distribution. Visible sensors are used to zoom-in for detection and documentation of the damages involved.

MODULAR SUPERIOR PERFORMANCE

ORSOLAR-air with its outstanding performance is customizable per specific customers' needs and can include various gimbal combinations of inspection technologies for various aircraft types.

TECHNICAL SPECIFICATIONS

CAN BE ACCOMMODATED TO CUSTOMERS' REQUIREMENTS

UV IMAGER	
Resolution	768x576 pixels
Spectral Range	340-370nm
Field of View H x V	30°
IR THERMAL CAMERA	
Lens	30mm
Detector Array Size	1024x768 pixels
Thermal Sensitivity	Better than 50mK @ 30°C
Spectral Range	7.5-14µm
Digital Zoom	Yes
Thermal Resolution	50mK
VIDEO CAMERA	
Image Sensor	1/3" type CMOS
Picture Quality	2.38 Megapixels (PAL, NTSC)
Spectral Range	400-650nm
Resolution	1920x1080 pixels
Lens	30x Optical
Digital Zoom	12x (360x with optical zoom)
Min. Illumination	0.35 Lux (F1.6, ICR off); 0.095 Lux (F1.6, ICR on)
Viewing angle	63.7° (wide end) to 2.3° (tele end)
PHOTO (FRAME CAMERA)	
Resolution	36 Mpixels
Speed	6fps
Sensor	DX-Format CMOS Sensor
Lense	AF DC-Nikkor 50mm
Features	GPS input for image tagging, Video Out (Showing last stored picture) USBII interface for camera setup , Camera Control Pro Software
LASER RANGE FINDER	
Wavelength	1550nm
Range Peformance	up to 1900m (Nato target)
Accuracy	1m
Repetition Rate	1Hz