

Remote Sensing

Remote Sensing

Introduce technology which can be employed to extend surveillance information available to beyond the visible spectrum

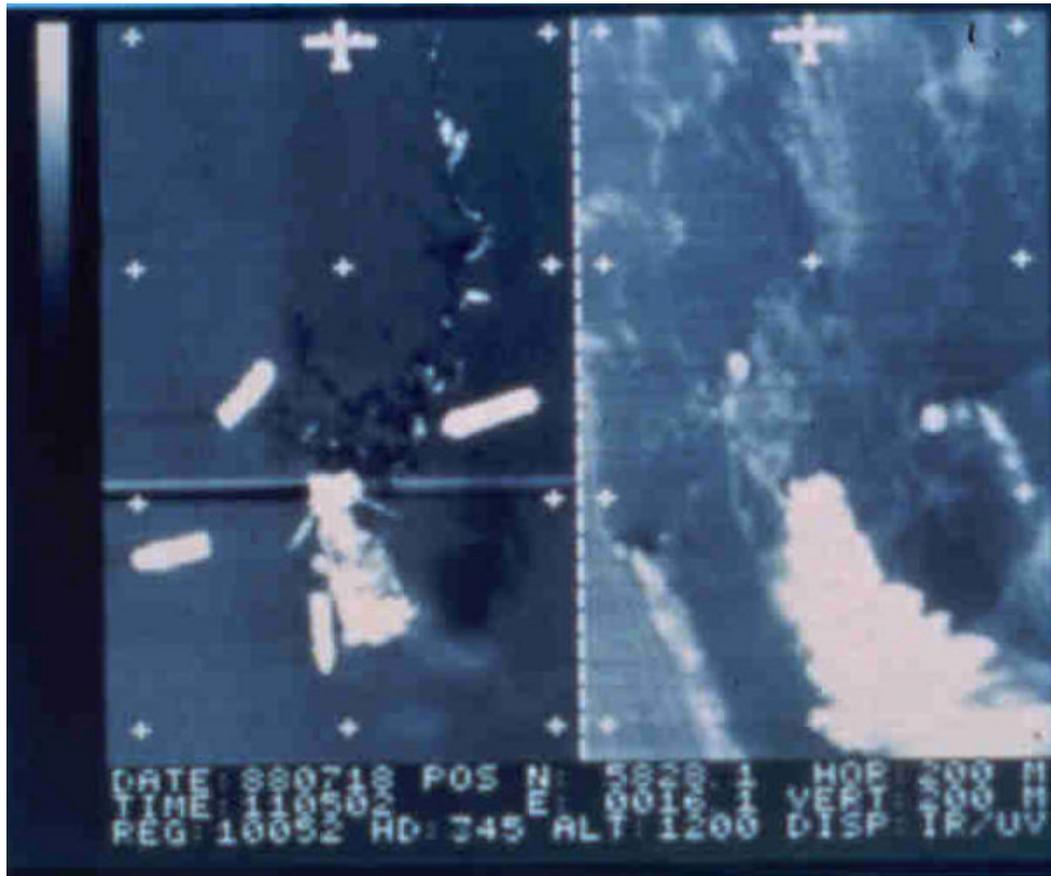


Remote Sensing

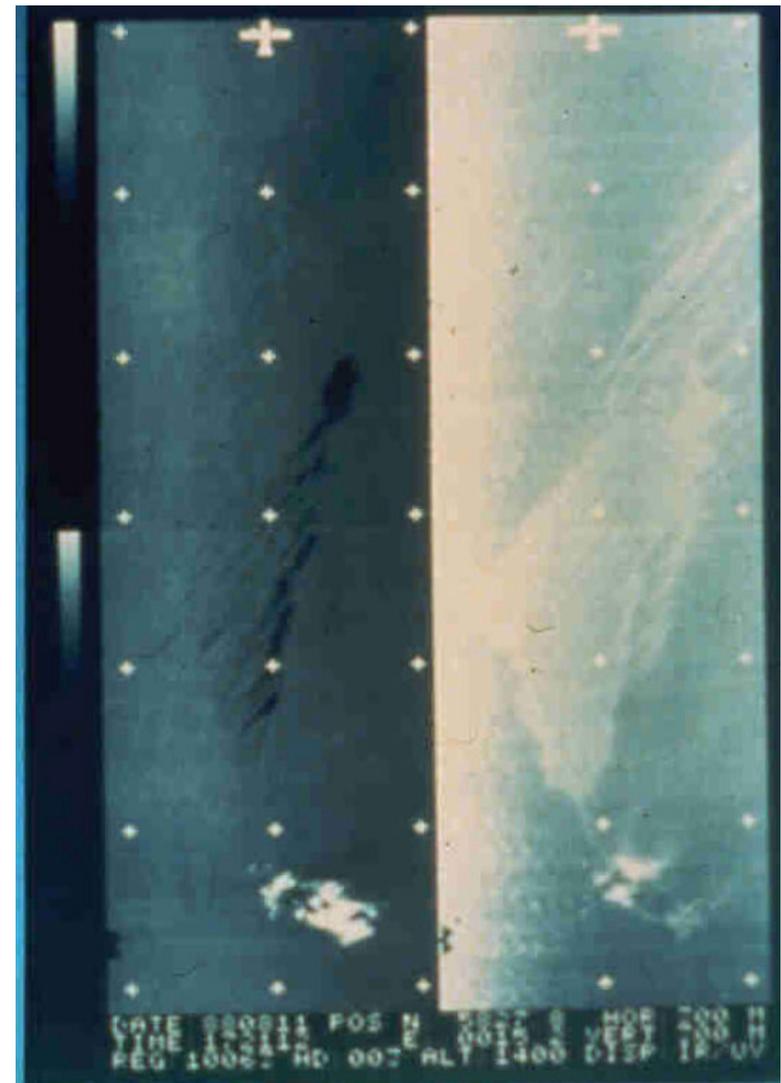
- Side looking airborne radar (SLAR)
 - ✓ all weather and night operation
 - ✓ large area coverage
 - x dependent on wind conditions and no oil thickness
- Ultra violet (UV)
 - ✓ produce video
 - x detect all hydrocarbon - no oil thickness
 - x clear daylight only
- Thermal infra red (TIR)
 - ✓ night operation
 - ✓ produce video
 - ✓ relative oil thickness
 - x cannot penetrate cloud







Infra Red - Ultra Violet

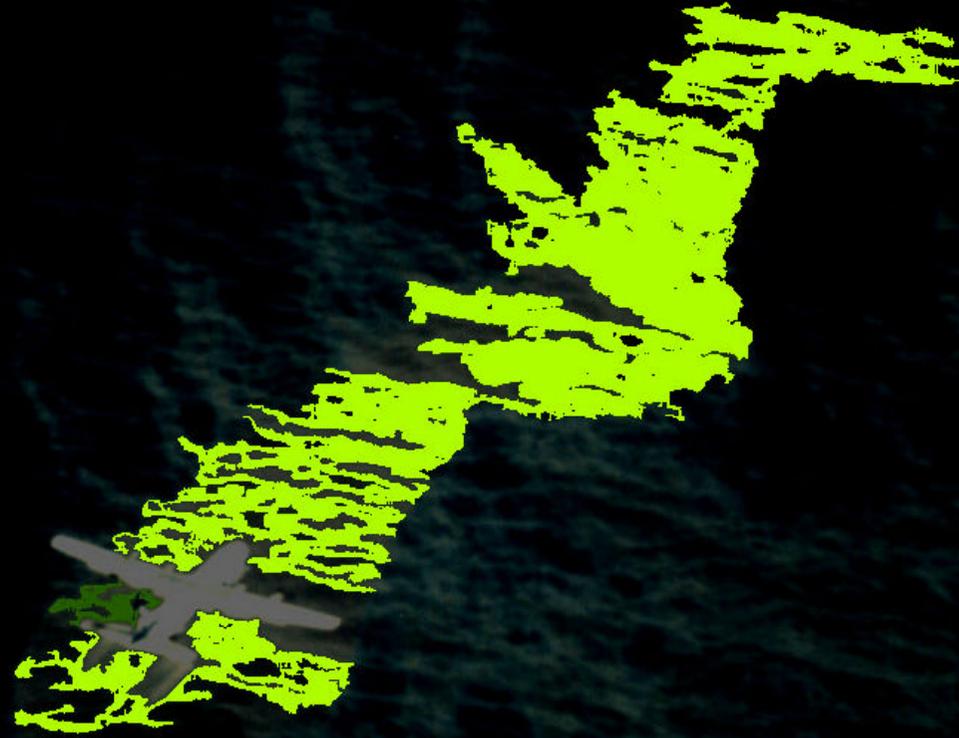


IR - UV





Visual



Enhanced Infra Red

Examples of Remote-Sensing Assets

1. Spill on water Remote Sensing System

- infra-red (IR)
- ultra-violet (UV)
- visual spectrum cameras
- used in the Hercules aircraft

2. Hand-held infra-red system

- deployed in any small aircraft or helicopter

- Both units have:

- sound and video recording
- freeze frame
- GPS position overprint



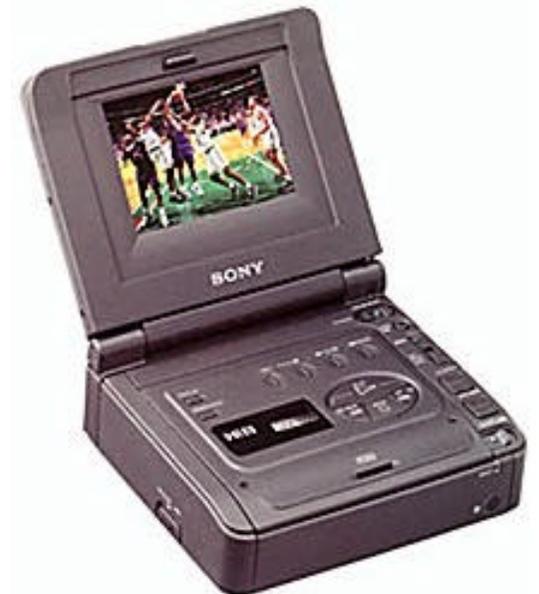
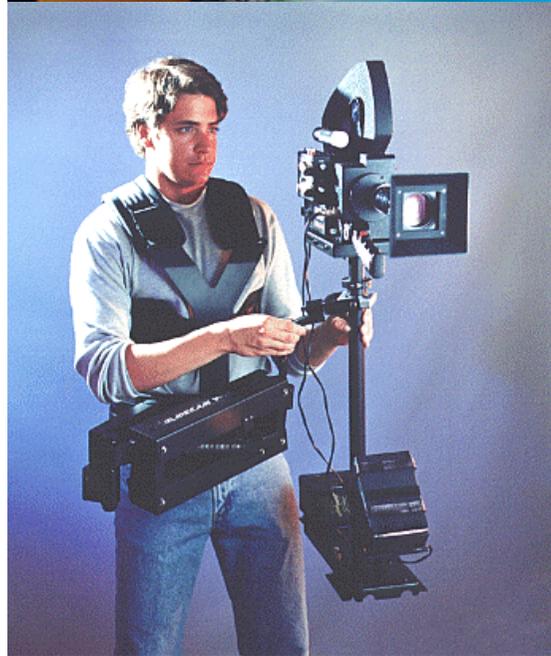
Spill on water Remote Sensing System (SRSS)

- Console to manage imagery, record to video or capture to laptop
- Separate camera pod fits in upper cargo door
- Voice communication with flightdeck



Hand-held Infrared System

- Raytheon Explorer-IR camera
- Sony Hi-8 editing deck
- GPS



Satellite Imagery

- No control over the timing of satellite passes and recording wavelengths
- Relatively long periods for data acquisition and transfer limits the operational value
- Discriminating oil from other phenomenon can be very difficult
- Research continues

