NAVAL POSTGRADUATE SCHOOL

THE AIRCRAFT FLEET

UV 18-A Twin Otter (2)

Pelican (2)

Sentry BK 30
UAV (5)

SPA-10

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UV-18A Twin Otter 256

- Operated for 15 years
- Research Capacity: 1500 lbs
- Research Power: 5600 W at 28 VDC, 4000W 110VAC 60 hz:
- Science Payload Stationing:
- - Internal Standard Racks
- - Various Pylon Mounted Pods
- - Various Fuselage Mounted Fairings

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UV-18A Twin Otter 255

Army Golden Knights UV-18A Transferred to CIRPAS on Sept 2013

ALL Research Modifications to our current Twin Otter (256) are transferable to the New Twin Otter (255)

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Pelican 783

Modified Cessna 337

Payload Capacity ~700 lbs

- 4 Hard Points on Wings
- Nose Free
- Back of Cabin

Payload Power: 2 kW

Speed: 120 KIAS

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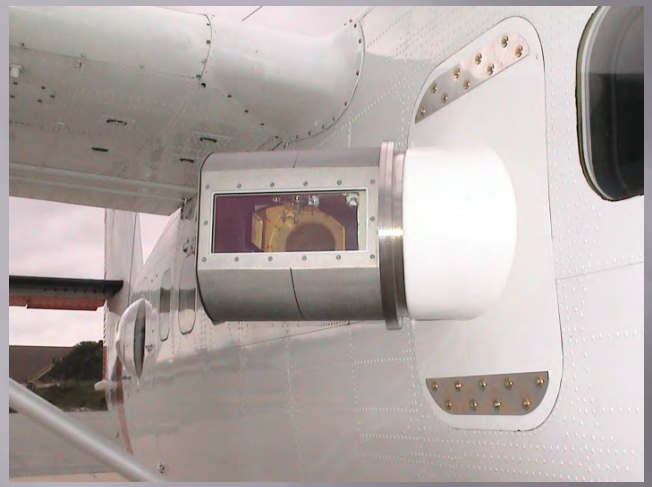
Twin Otter Science Instrumentation



TODWL two axis scanner

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Storm Penetrating A-10

A-10 has 11 hard points on wings and belly where 8000 lbs of instruments may be suspended.
It has a belly bay where 2200 lbs of stuff may be mounted

Engineering test flights are planned in mid-year 2015 (including tests of baseline instruments and communication).
Progressive science flights are planned in latter half of 2015

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Sentry Block 30 UAS

Operational For One Year:

- Med Endurance, Med payload platform.
- Small Footprint, Easily transportable, Ruggedized UAV
- 10,000 ft. Max Altitude
- 6 Hours Endurance

Sensor / Payload Descriptions:

- EO/IR Imaging Payload
- 75 LBS Payload Capacity

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AIRFIELD FACILITIES:

- Marina Facility
  - 3500 ft runway - manned operations only
  - 30,000 sq ft maintenance hangar
  - Instrumentation and Calibration Laboratory
  - Maintenance and Payload integration shops
  - Offices

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AIRFIELD FACILITIES:

- **Camp Roberts Facility**
  - **Friendly airspace for UAV testing and training (R2503).**
  - **Military ground maneuvers (equipment, personnel)**
  - **3500 x 60 ft runway**
  - **2000 sq ft hangar**
  - **Office Space**

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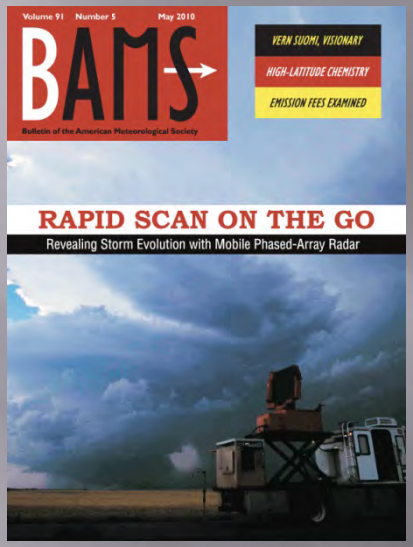
GROUND BASED ASSETS



MWR-05X Mobile Storm Radar

Parameter	Value
Transmitted frequency	X-Band
Transmit power	15.13 kW (peak) 240 W (average)
PRF	10 kHz (max)
Transmitted pulse width	1 μs
Antenna type	Mechanically rotated electronically scanned phased array
Azimuth BW	1.8°
Mechanical Azimuth Scan	360°, 30 RPM
Electronic Azimuth Back-Scanning	6 to 8, depending on elevation angle
Elevation BW	2.0°
Elevation Scan	-18° to 55° relative to the horizon
Range Resolution	150 m

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GROUND BASED ASSETS

TPQ-37 Mobile Radar

S-Band Full Phased Array
Peak power: 120 KWatts
PRF: 3 kHz
Range Resolution: 150 m
Dwell time (integration time): 250 ms
Scan time: 4 beams per second

Most research modifications used for the MWR are transferable to the TPQ-37

Conversion Process Saves Engineering Costs

Research Modifications Require Mostly time and material costs