

CLAMS Planning Workshop

Platforms

OV-10A (N524NA)

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C-FAR Measurements



Up-Looking Radiometers
FR Spectral Hemispheric 0.4 - 2.20 μm
Eppley PSP 0.3 - 3.0 μm
Eppley PIR 5- 50 μm

Total Ambient Temperature
Barometric Pressure
Ambient Dewpoint Temperature
GPS Position & Time
Internal Pattern Generation & Navigation

Gyro Attitude and Heading

Video and Audio recording

Down-Looking Radiometers
FR Spectral Hemispheric 0.4 - 2.20 μm
Eppley PSP 0.3 - 3.0 μm
Eppley PIR 5- 50 μm
Narrow FOV FieldSpec FR Scanner [FUTURE]

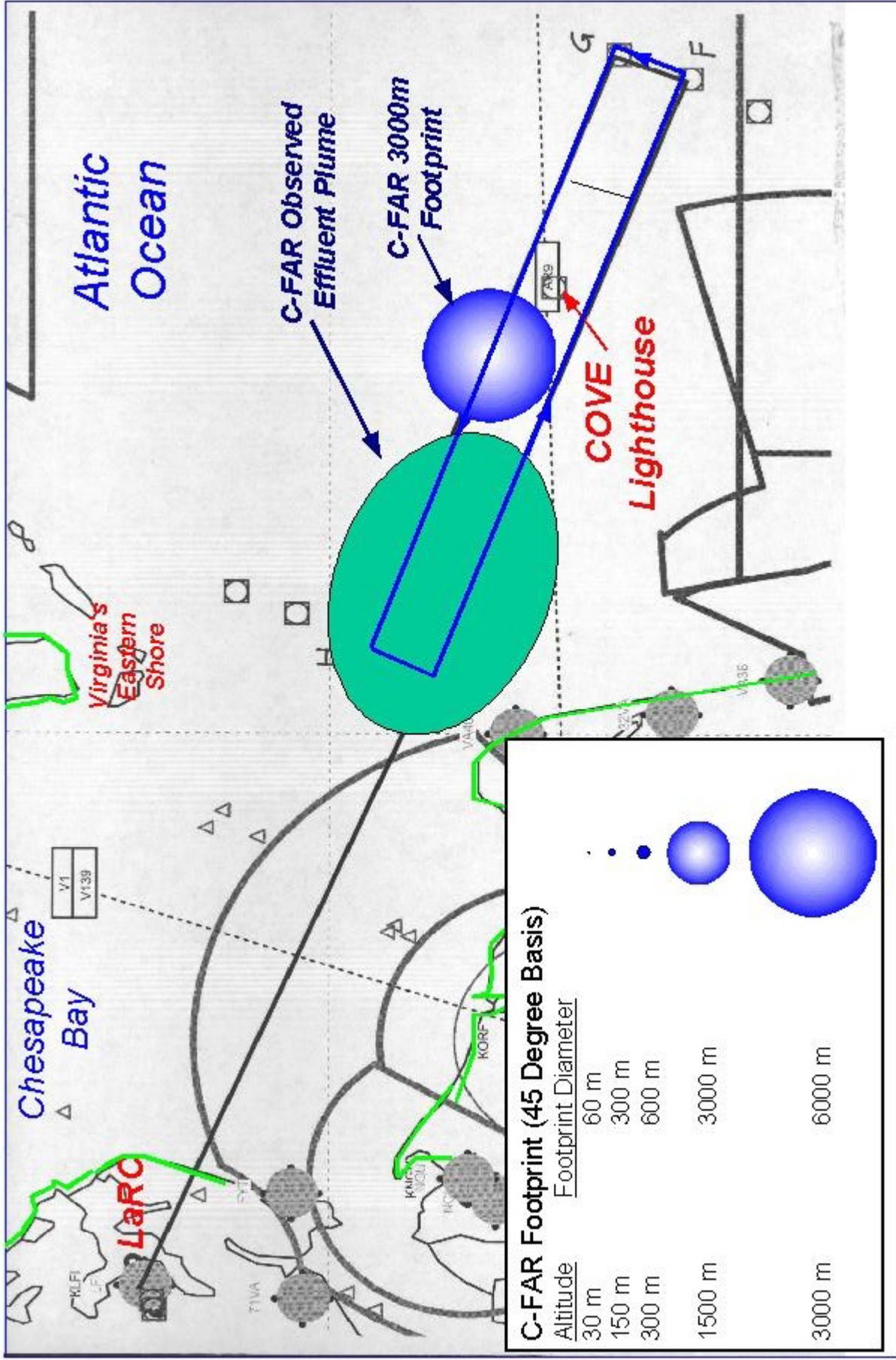
OV-10 OPERATIONAL CONSIDERATIONS

- Present operational restrictions
 - Day VFR (IFR enroute)
 - Altitude: 100 ft AGL to 10,000 ft MSL
 - Operate within 50 nautical miles of shore
- Nominal performance
 - Cruise speed: 155 – 160 knots (indicated airspeed)
 - Duration (including transit time & terminal area ops):
 - 77 deg F (sea level @ takeoff) = 2.6 hours (~ 380 nmi)
 - 86 deg F (sea level @ takeoff) = 1.8 hours (~ 260 nmi)
 - 95 deg F (sea level @ takeoff) = 1 hours (~ 130 nmi)

OV-10 OPERATIONAL CONSIDERATIONS

(concluded)

- Flight frequency
 - 2 to 3 flights per day possible
 - ~ 1 hour from landing to next takeoff (refuel, no data download, min. checks)
 - ~ 1.75 hours landing to next takeoff (refuel, data download)
 - ground & flight crew duty day limits
 - maximum work day = 12 hours (16 w/waiver)
 - minimum rest between days = 10 hours
 - maximum hours per week or consecutive days = 60 hours or 6 days
- Possible schedule constraints
 - pilot availability during EAA Oshkosh Demo July 24-30
- Questions
 - projected # of OV-10 hours needed for CLAMS & projected # of OV-10 hours for pre-CLAMS support ?
(to plan 100 hour phase inspection)
 - what proximity between aircraft is needed to accomplish science objectives ?



C-FAR Footprint (45 Degree Basis)

Altitude	Footprint Diameter
30 m	60 m
150 m	300 m
300 m	600 m
1500 m	3000 m
3000 m	6000 m