



412th Test Wing

DoD West Coast Testing Range Operational Perspective

*The Center of the
Aerospace Testing Universe*

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412 RANS, Edwards AFB, CA
23 Apr 2019



AFMC Mission: Deliver and Support Agile War-Winning Capabilities



Making History Today



For The Warfighter





412 TW Fleet

68 Total Aircraft, with 13 Aircraft Types & 135 Small UASs

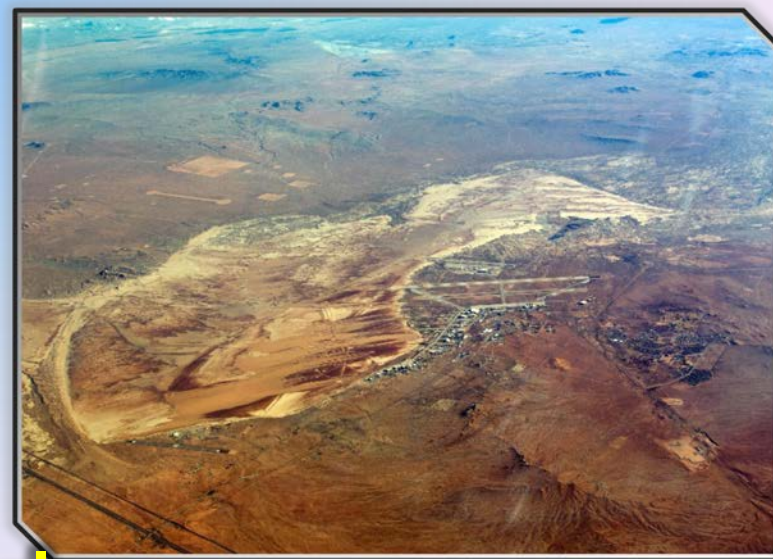


Test Aircraft

- ◆ 8 x F-35A
- ◆ 4 x F-22
- ◆ 10 x F-16
- ◆ 3 x B-52H
- ◆ 1 x B-2A
- ◆ 2 x B-1B
- ◆ 1 x C-17
- ◆ 1 x KC-135
- ◆ 3 x Global Hawk
- ◆ 2 x KC-46

Fleet Support

- ◆ 17 x F-16 (various blocks)
- ◆ 1 x NF-16D Vista
- ◆ 11 x T-38C
- ◆ 4 x C-12



Testing tomorrow's technology...
at Edwards today!



Mission, Tenant Organizations and Operations



Counter sUAS Testing



Orion Capsule



Tenant Organizations



MOA & ATCAA Airspace

Military Operations Areas & Air Traffic
Control Assigned Airspace

JOSHUA APPROACH

Frequencies:

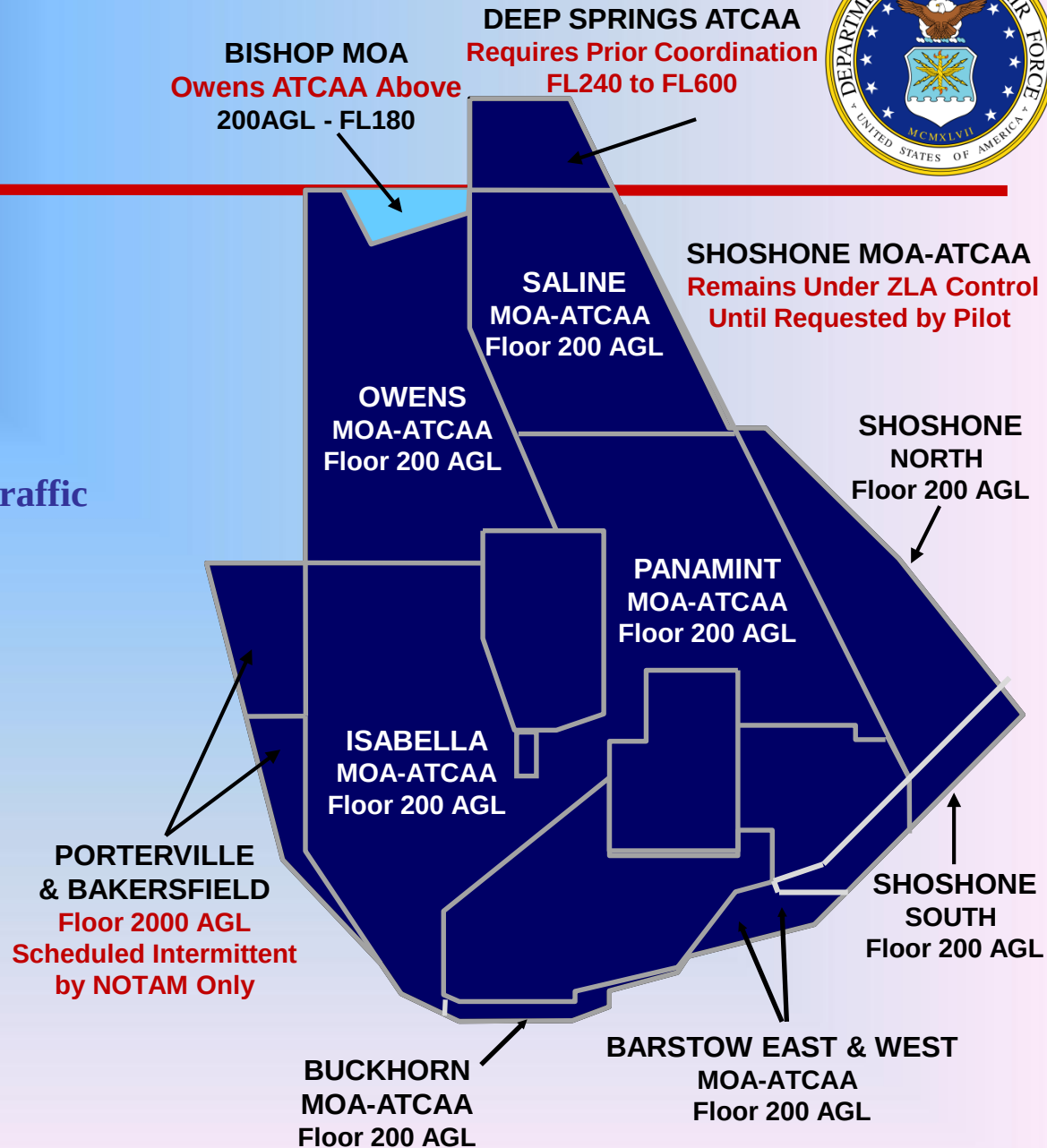
Joshua Primary ATC: 348.7/133.65

Isabella: 335.6/134.05

Owens: 322.3/126.55

Saline: 256.8/123.95

Panamint: 291.6/120.25





Concept of Operations

When the SUA is Activated

- VFR
- See and Avoid
- Non-Exclusive Use
 - Transponder – Mode C
 - Accept Advisory Service
 - Active vs. Inactive Monitoring

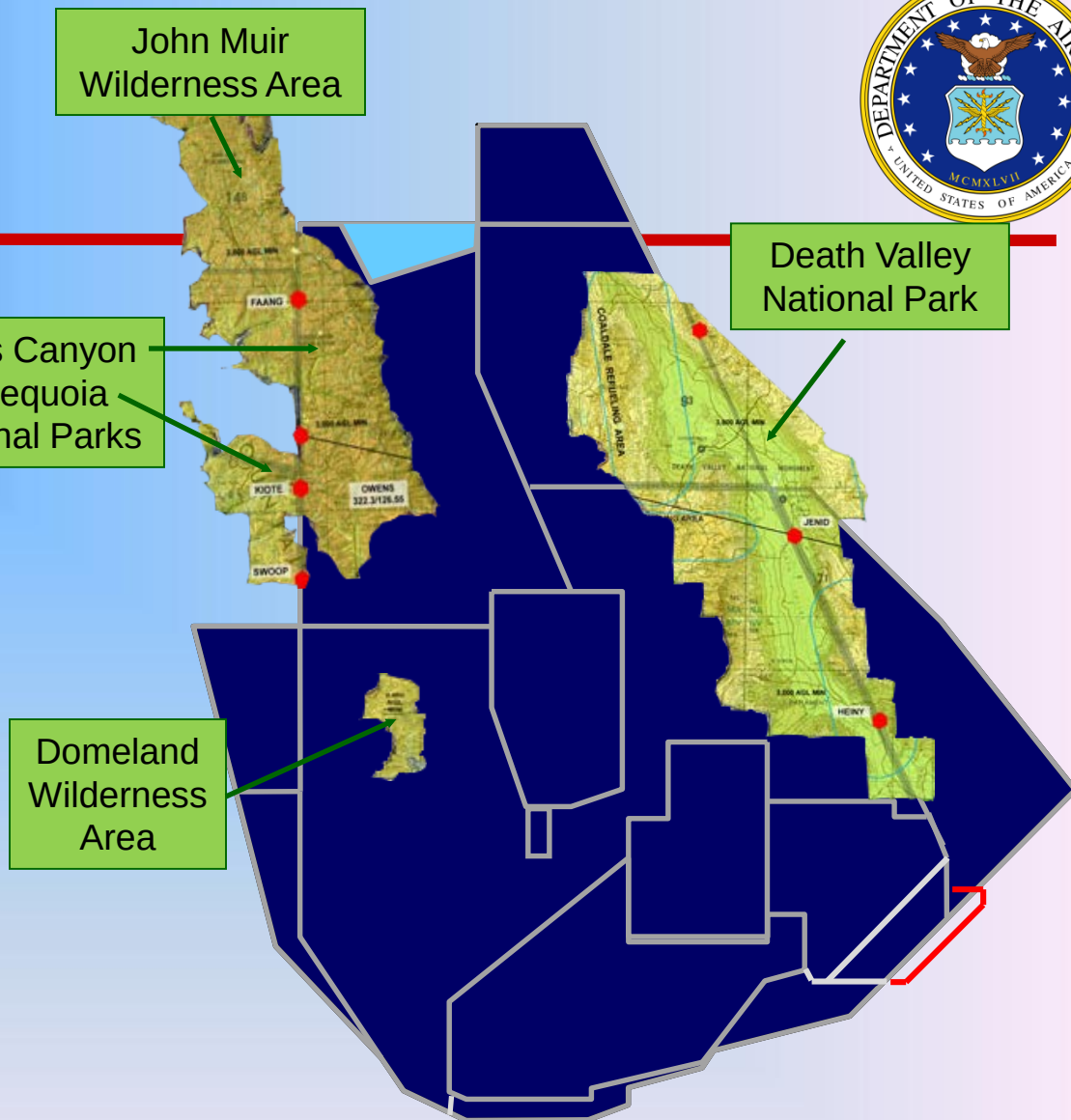




Overflight Restrictions of Parks & Wilderness Areas

Floor of MOA over National
Parks and Wilderness Areas
Published Altitude: **3,000 AGL**

- FLIP AP1 California
- FAA JO 7400.8

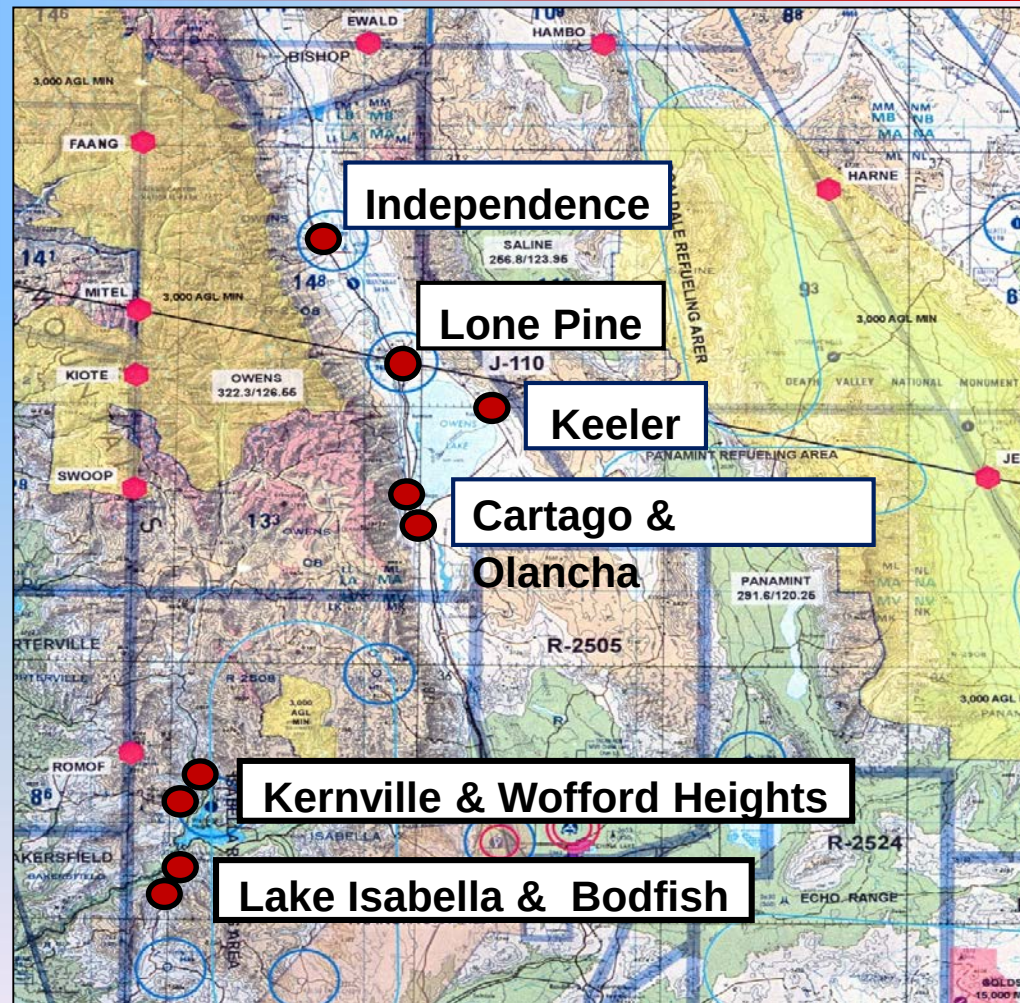


Remain at least 3,000 feet both Laterally and Vertically
from National Parks and Wilderness Areas...
3,000 feet from Canyon Walls and Saddles



Noise Sensitive Areas

All Communities within the R-2508 Complex are considered “noise sensitive areas”. Noise sensitive areas must be avoided by 3000’ AGL. The only exception to the 3000’ restriction is while operating on an approved test plan.





• Temporary Flight Restrictions (TFRs)

- Land Management Activity
- Fire-fighting Support ACFT

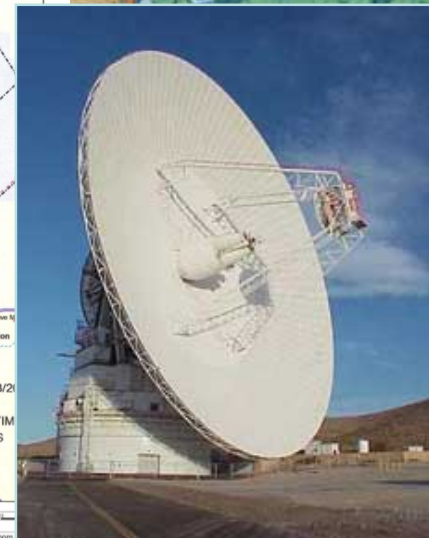
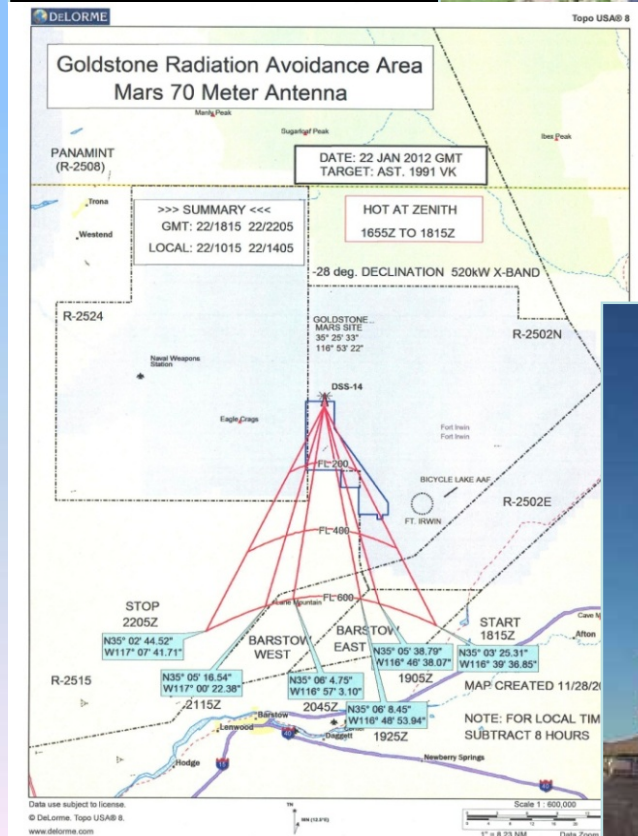
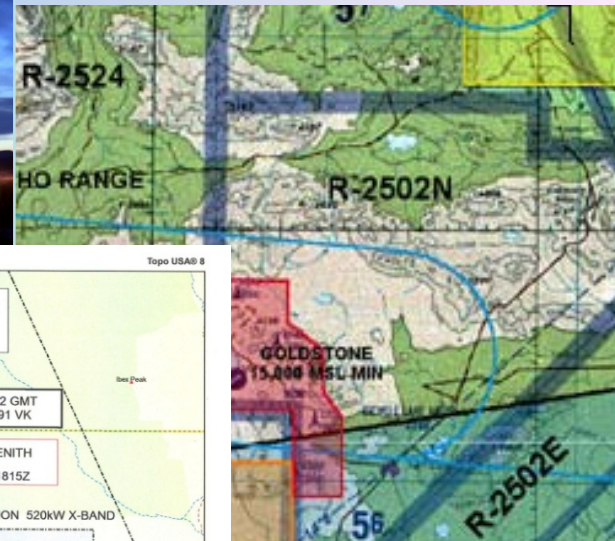
**SMOKE FROM FIRES
STAY AWAY!**
Check NOTAMS Prior to Step
Check R-2508 Daily Brief
Sheet





Special Activity Areas NASA Goldstone Facility

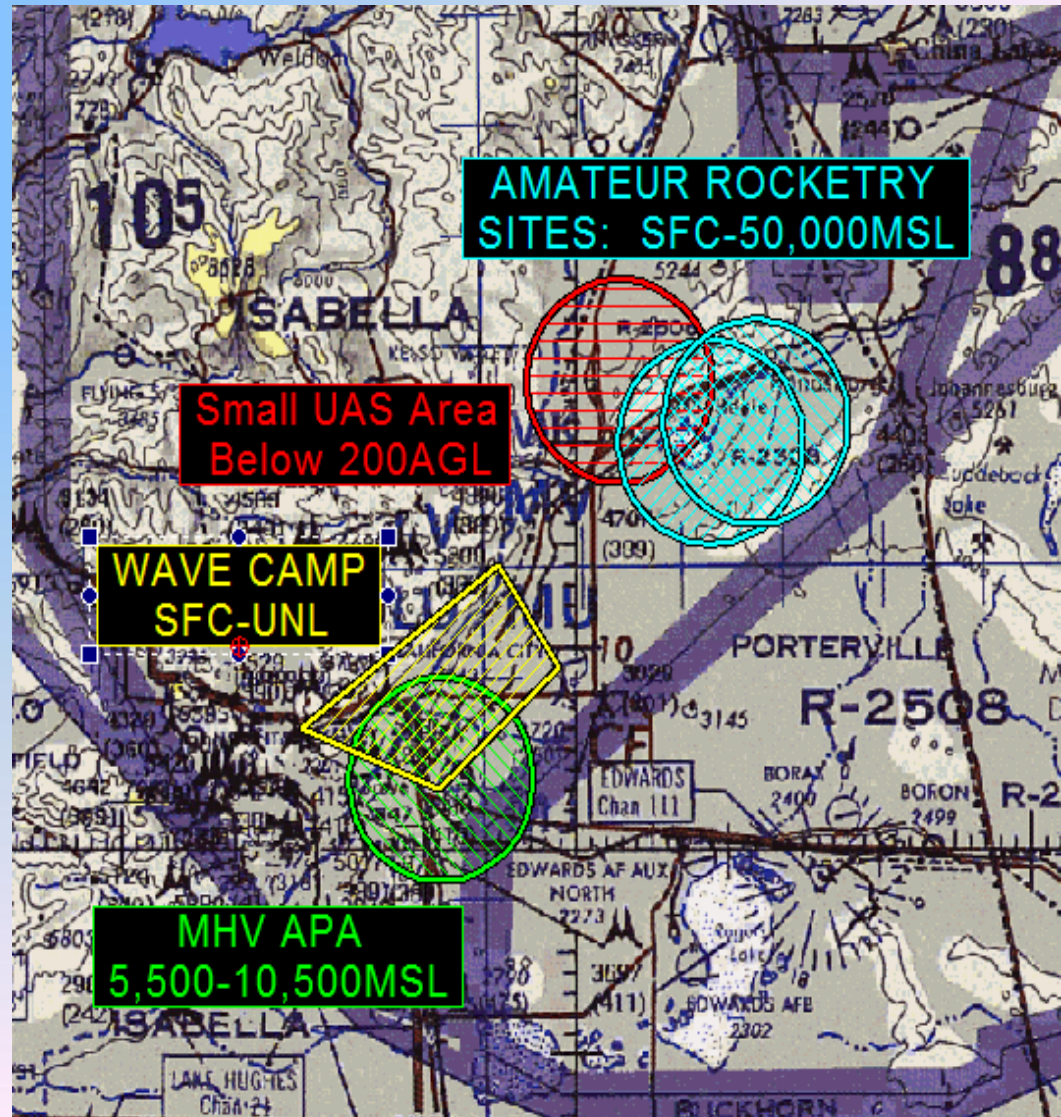
- **Overflight Restriction**
 - 10,000 MSL or Higher as Scheduled
 - Goldstone provides ATC/MRU with radiation map to identify affected area, altitudes, and times when 70 meter dish is radiating
- Joshua, SPORT, China Control and Desert Radio will advise Users of Affected Areas





SPECIAL ACTIVITY AREAS

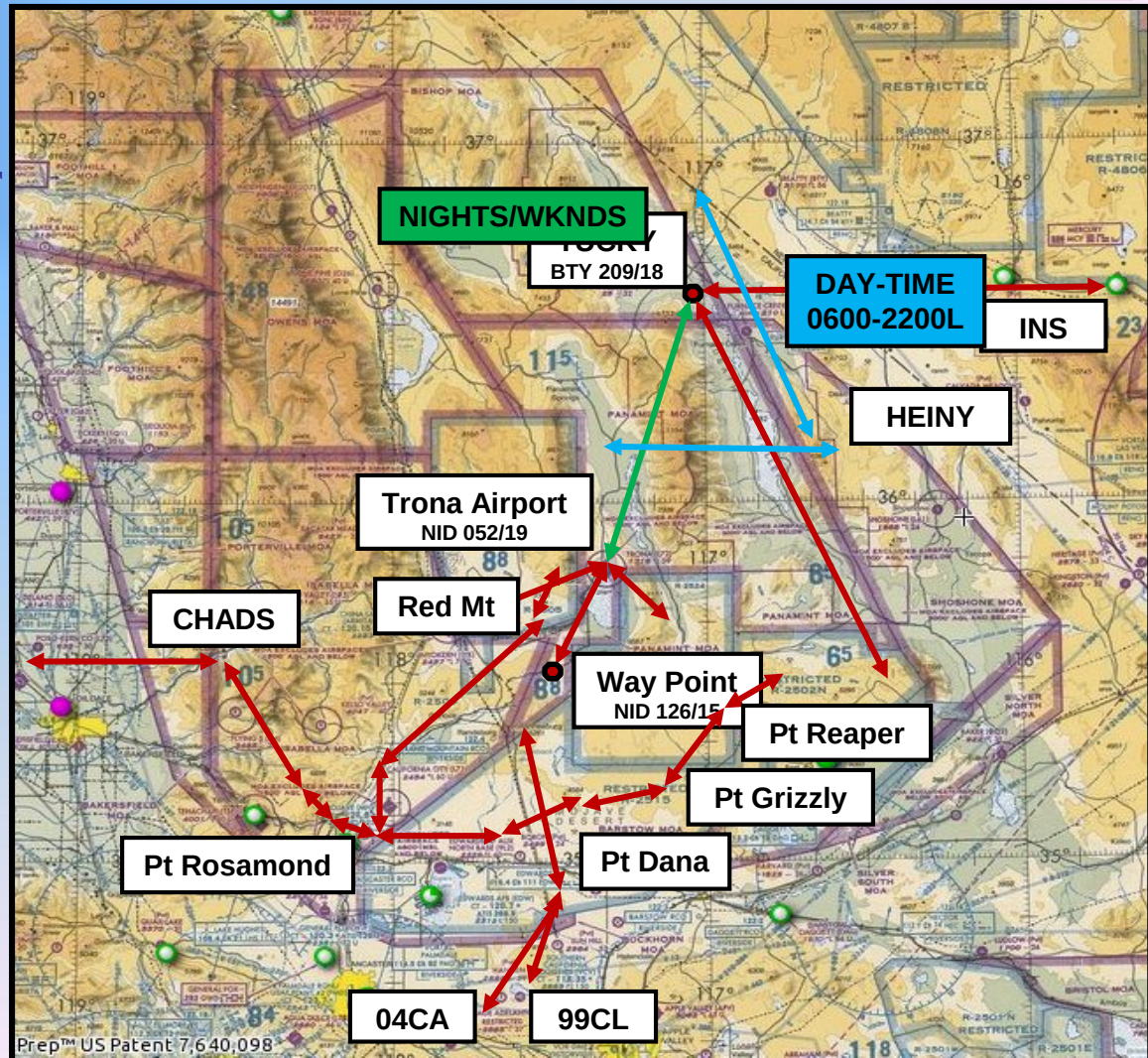
- **Small UAS Work Area**
 - Below 200' AGL
 - Underlies IR211 and VR1262
- **Koehn Dry Lake: Launch Site**
 - Launch Altitudes up to 50,000 MSL
 - sUAS 200AGL M-F / 400AGL WKND
- **Wave Camp Area: Concentrated Glider Activity - All altitudes**
 - Transponder Equipped above FL180
- **MHV Aerobatic Practice Area**
 - 5,500 to 10,500 MSL
 - W/I lateral confines MHV Class D
 - Activated real-time by JOSHUA





UAS/RPA Transition Routes

- All Transitions flown at FL190 or FL200 Correct Alt/Direction of Flt
- **GREEN RTE:** Authorized only after normal flying complete Mon-Fri, weekends, or FL400 and above.
- **BLUE RTE:** For use during normal Flt Ops Mon-Fri
- **R-2505 – R-2524 Transitions:**
 - Authorized directly across Trona Corridor (no loitering)
 - Min Alt: FL180
 - Mode 3 & ATC com required





QUESTIONS?



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