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OPR: R-2508 Central Coordinating Facility (CCF)  
Supersedes: R-2508 User's Handbook, Aug 2021

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Pages: 35

This handbook outlines standard operating procedures for all R-2508 Complex users. All airspace users must be familiar with this handbook and exercise good judgment for situations not covered. Direct recommended changes and questions to the Office of Primary Responsibility (OPR). The waiver authority for this handbook is the R-2508 Complex Control Board (CCB).

**SUMMARY OF REVISIONS**

Paragraph 2.3 and 4.2 have been amended.

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# R-2508 User's Handbook

## CHAPTER 1 Introduction

1.1. **Background.** The R-2508 Complex was established in 1955, under a joint agreement between the Department of Defense (DoD) and the Federal Aviation Administration (FAA), in an effort to improve the safety of flight operations in the area and to de-conflict military, civilian, and commercial air traffic.

1.2. **Organization.** In 1975, the Joint Services and the Secretary of Defense created the Joint Policy and Planning Board (JPPB) to manage the daily operations of the R-2508 Complex. The JPPB is composed of the Commanders of the 412 Test Wing (412 TW), Naval Air Warfare Center Weapons Division (NAWCWD), and the Army National Training Center (NTC). The Complex Control Board (CCB) consists of one senior representative from each Command who is intimately familiar with their organization's mission and policies. The Central Coordinating Facility (CCF) is a permanently staffed joint-DoD office established by the JPPB. The Operations Working Group (OWG) is established under the auspices of the CCB and is co-chaired by the 412 Operations Group Commander (412 OG/CC) and Commander, Naval Test Wing Pacific.

1.3. **Primary Activities.** The primary R-2508 Complex activities include aircrew training and readiness, and research, development, test and evaluation (RDT&E) events.

1.4. **Change Recommendations.** Recommended changes to this document should be forwarded to:

R2508 Central Coordinating facility  
100 East Sparks Drive  
Edwards AFB, CA 93524-8090

Telephone: DSN 527-2508/(661) 277-2508  
Email: [2508CCF@us.af.mil](mailto:2508CCF@us.af.mil)

1.5. **Information Availability.**

- Public website: <http://www.edwards.af.mil/About/R-2508>
- SharePoint: <https://usaf.dps.mil/teams/12162> (Note: SharePoint access requires an AFNet account, CAC, a Cyber Awareness certificate, & DD Form 2875. Contact: DSN 525-4269/(661) 525-4269.

1.6. **Situation Reports (SITREP).** SITREPs are for LOCAL USE ONLY and are a way to report issues, recommend improvements, or report exceptional performance or support. SITREP submissions must occur within **10-days** of the incident if a RADAR/audio review is required. SITREPs do not replace Hazardous Air Traffic Report (HATR), Operational Hazard Report (OHR), Hazard Reports (HAZREPS) or Near Mid-Air Collision Reports (NMAC), etc.

- The SITREP form is on the public website: <http://www.edwards.af.mil/About/R-2508>
- The SITREP form is also on the SharePoint: <https://usaf.dps.mil/teams/12162>
- Submit SITREPS to CCF for processing: [2508CCF@us.af.mil](mailto:2508CCF@us.af.mil)

1.7. **Airspace Description.** R-2508 Complex airspace is depicted in *Figure 1*. Refer to Appendix I for geographic waypoints and a more in-depth description of the airspace.

# R-2508 User's Handbook

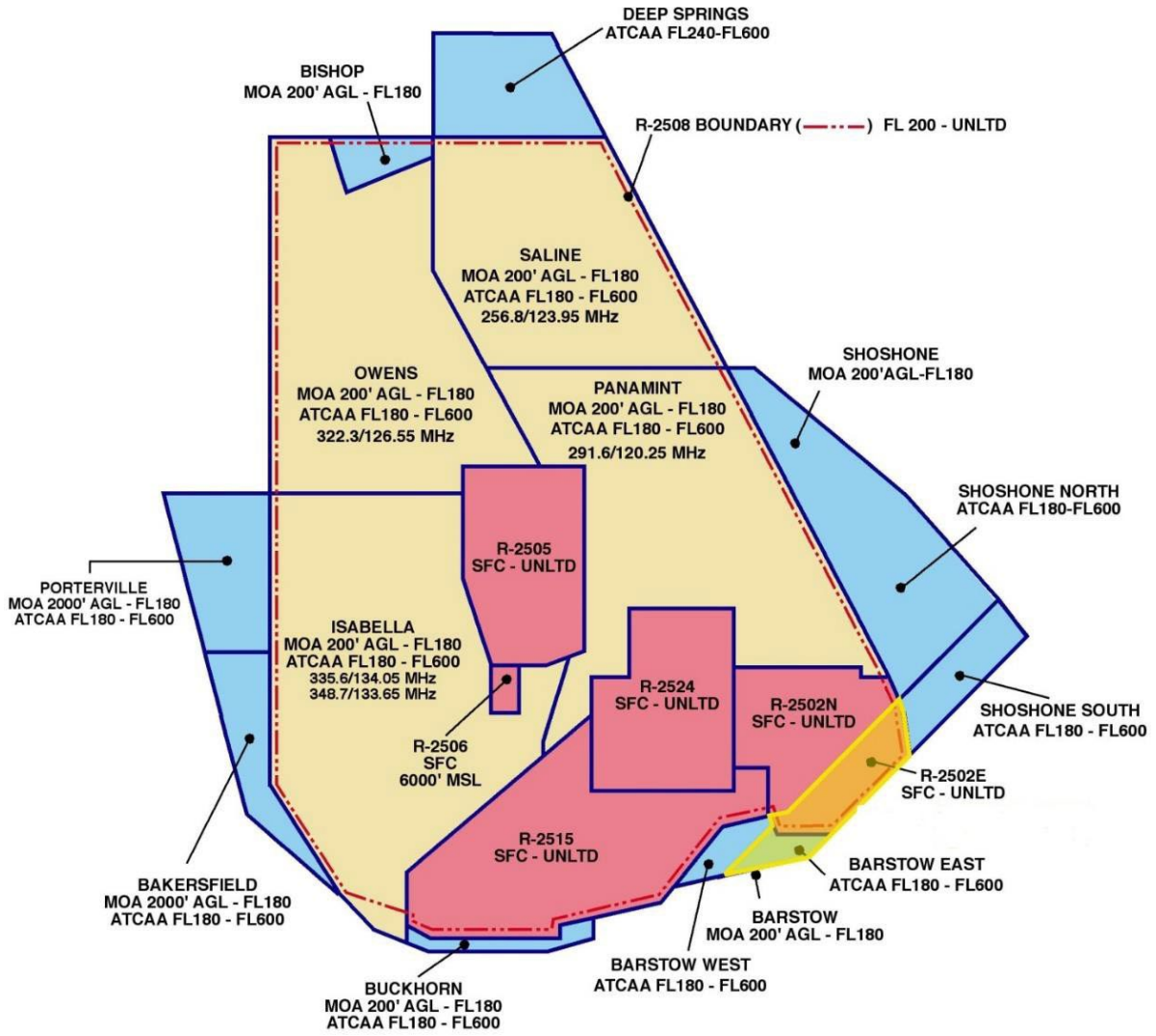


Figure 1. R-2508 Airspace

# R-2508 User's Handbook

## CHAPTER 2 Scheduling

**2.1. Central Coordinating Facility (CCF).** CCF is the scheduling agency for R-2508, MOAs, and ATCAAs. Office hours: M-F, 0600-1800L (excluding Federal Holidays). Email: 2508ccf@us.af.mil. DSN 257-2508/(661) 277-2508. After-hours: 1-866-805-2851.

### 2.2. Scheduling Pre-requisites.

- Unscheduled aircraft will be denied entry into the Complex.
- All Users require the annual R-2508 Users Briefing. The briefing schedule is published with the Daily Brief Sheet. Contact CCF for more information.
- Only JPPB sponsored units, or R-2508 Letter of Agreement (LOA) holders, will be allowed to schedule in the Complex.
- JPPB sponsored units that host transient units are responsible for ensuring compliance with all Complex procedures.

**2.3. Scheduling Procedures.** Submit an Airspace Request Form to CCF via email (forms are available on the public website).

- For weekday, submit no later than (NLT) 1600L 1-work day prior.
- For weekend/holiday, submit NLT 1600L the last work day prior.
- All form data must be complete and accurate.
- Coordinate all cancellations, changes, or time slips with CCF.
- CCF accepts Edwards and Plant 42 Center Scheduling Enterprise (CSE) requests, but will not accept CSE requests for aircraft with departure points other than EDW or PMD.
- IFR aircraft landing NID or EDW, not operating within the Complex, do not need to schedule with CCF.
- For the Airspace Request Form, use airspace abbreviations from Table 1.

BAKERSFIELD MOA/ATCAA	BK	SHOSHONE MOA	SH
BARSTOW MOA	BA	SHOSHONE NORTH ATCAA	SHN
BARSTOW EAST ATCAA	BAE	SHOSHONE SOUTH ATCAA	SHS
BARSTOW WEST ATCAA	BAW	ISABELLA REFUEL AREA	ARISB
BISHOP MOA	BI	SHOSHONE REFUEL AREA	ARSHN
BUCKHORN MOA/ATCAA	BH	COALDALE REFUEL AREA	AROAL
DEEP SPRINGS ATCAA	DS	LINUS REFUEL AREA	ARLNS
ISABELLA MOA/ATCAA	I	PANCHO 3 (EDW/PMD/NID/NLC only)	P3
OWENS MOA/ATCAA	O	SAGE 2	S2
SALINE MOA/ATCAA	S	WAR 2 (Green Flag only)	W2
PANAMINT MOA/ATCAA	T	GOLDEN TRIANGLE	GT
PORTERVILLE MOA/ATCAA	PV	COLLINS 1 (U2 only)	C1
BLACK MOUNTAIN SUPERSONIC			BMSS
HIGH ALTITUDE SUPERSONIC			SS

**Table 1. Scheduling Form Airspace Abbreviations**

### 2.4. Additional Scheduling Considerations.

- Schedule internal restricted areas with the using agency
  - Refer to Chapter 4, Airspace; section 4.1.
- Schedule Military Training Routes (MTRs) with the appropriate scheduling agency.
  - If transitioning R-2508, scheduling must be accomplished with CCF separately.
  - Does not include the Sidewinder route.
- For flights originating from outside the Complex & not landing at an airport inside the Complex:
  - File two (2) legs. One to enter – one to depart the Complex
  - File “R2508” as the destination/departure point.
- Clearances will not be issued when the airspace has been released for joint-use (released for commercial traffic).
- Joshua Control Facility (JCF) is not authorized to schedule or activate airspace.
- Use Complex entry/exit points during flight planning (see Figure 2).  
FAANG/MITEL/KIOTE/SWOOP ROSIE/DAGGS can be filed by name (others by coords or RAD/DME). Note: NID TACAN is unmonitored when China Lake airfield is closed.

### 2.5. Flight Clearances.

- Aircrew must schedule the use of the internal restricted areas IAW the using agencies policies. CCF and JCF are not responsible for knowing or advising if internal restricted areas are active and/or have been scheduled. This responsibility rests solely with the aircrew.
- JCF will provide work area clearance as follows:
  - **SAGE 2:** Isabella, Owens, Saline, and Panamint, FL290 and below.
  - **PANCHO 3:**
    - NID, EDW, NLC, and PMD only.
    - Isabella and Panamint FL500 and below; Owens and Saline, FL290 and below.
  - **WAR 2:**
    - Green Flag Only.
    - Saline and Panamint work areas FL290 and below, Shoshone MOA, and Shoshone North/South ATCAAs FL230 and below.
    - Request North/South ‘real-time’ with JCF on initial check-in (there may be a delay).
  - **COLLINS 1:**
    - U-2 aircraft only.
    - Isabella MOA and ATCAA, 200’ AGL to unlimited; and within Owens, Panamint, and Saline ATCCAs above FL500.
    - Aircrew must schedule internal restricted areas IAW the using agencies policies. *If scheduled by the aircraft*, the aircrew may operate within R-2502 N/E, R-2505, R-2515, and R-2524 above FL500.

CHAPTER 3  
Course Rules

**3.1 Airspace Management.**

- All R-2508 Complex operations are “non-exclusive use.”
- All flights shall operate under “VFR - See and Avoid” criteria.
- All users must maintain VMC conditions. If unable to maintain VMC, notify JCF and request an IFR clearance. The purpose of the IFR clearance is to position the aircraft in weather that permits VFR flight. If unable to operate VFR, expect to exit the area or return to base.

**3.2 Joshua Control Facility (JCF).** “Joshua Approach” (348.7/133.65) is an FAA facility and the controlling agency for the R-2508 Complex.

- Workload permitting, JCF provides traffic calls, boundary advisories, and mission support services.
- JCF provides separation between IFR aircraft (participants and non-participants.)
- JCF does not provide separation services between participating aircraft.
- Monitoring of mission frequencies depends on JCF radio resources and workload.
  - **Active monitoring** – JCF tunes transceiver to the mission frequency and listens and makes traffic/boundary calls on the mission frequency.
  - **Inactive monitoring** – JCF tunes transceiver to mission frequency, but does NOT listen. Traffic/boundary calls will be made on mission frequency. Other pilot-to-controller communication will be made on an ATC frequency.

**3.3 Pilot Check-in Procedures.**

- Obtain a work area clearance before conducting operations in the Complex.
- Contact JCF prior to Complex entry & exit.
- Notify JCF of intentions, work area, and requested altitude.
- Maintain 2-way radio communications with JCF.
- Intra-flight communication shall be done on a secondary frequency.
- Notify Joshua prior to making rapid altitude or direction of flight changes. Workload permitting, Joshua will provide advisories on known or observed traffic.

**3.4 R-2508 Complex Entry/Exit points.** Refer to Figure 2.

**3.5 Altimeter Setting.** Remain on assigned local altimeter (regardless of altitude).

**3.6 Mode 3A/C.** All aircraft are required to have an operational transponder and MODE 3A/C.

- Remain on assigned beacon code unless otherwise directed.
- Flight leads, for standard formation flights, shall squawk normal. Wingman should squawk standby.
- During flight split-up, notify JCF of call sign, number/type aircraft, and request beacon code assignment. Notify JCF if traffic calls are needed between elements.

**3.7 Transiting Across Work Areas.** Aircraft transiting across work areas shall avoid aircraft actively conducting test or training whenever possible. Transiting aircraft should plan on traveling around, over, or below other active flights by flying near borders, or near the top of the area, or well below established flights at VFR hemispheric altitudes.

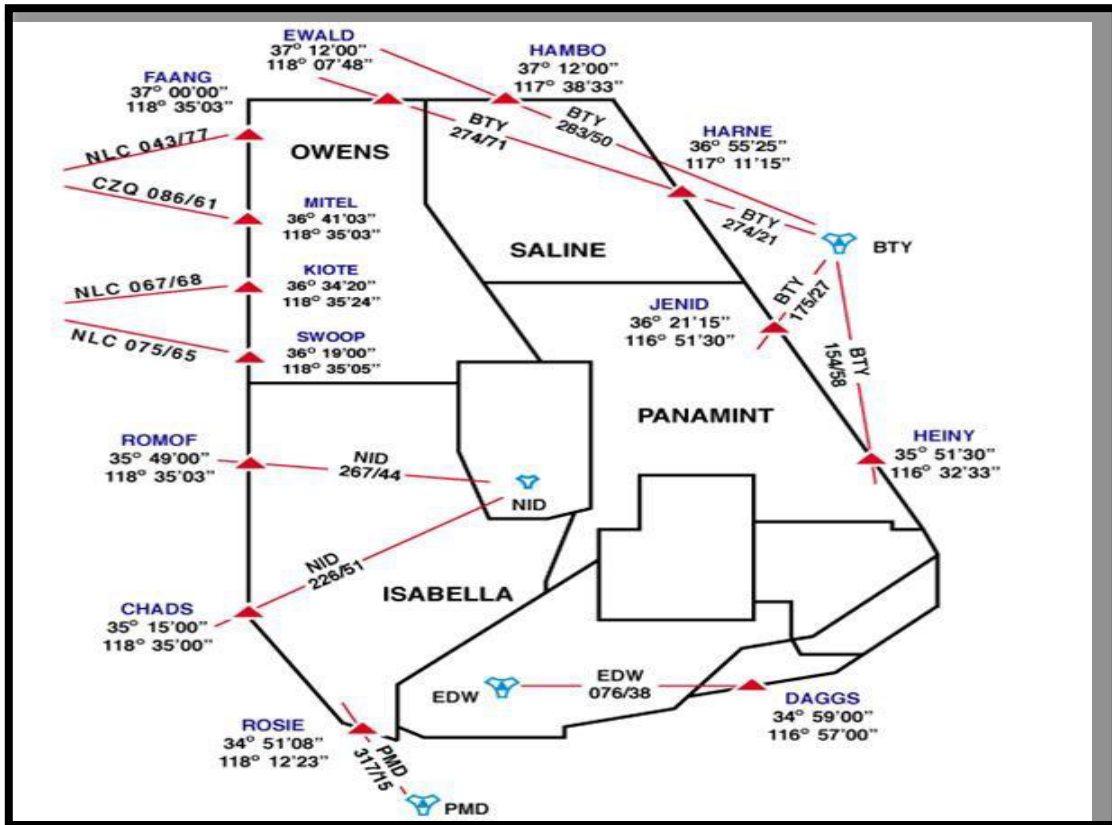


Figure 2. R-2508 Complex Entry & Exit Points

### 3.8 Low-Level Flying.

- Monitor and provide aircraft position using Geo reference points on **315.9** when operating below 1,500' AGL (including MTRs).
- 315.9 is used in a similar manner as UNICOM.
- Check-in with JCF and request change to the low-level frequency. USE CAUTION, as this frequency is not monitored by JCF. LAT/LONGs can be found in Appendix I.

### 3.9 Federal Agency Aircraft Operations.

- Fixed and Rotary Wing aircraft from the Bureau of Land Management, the National Parks and other Federal agencies operate primarily in the western portions of Isabella and Owens, and throughout the Panamint and Death Valley areas, 1500' AGL and below.
- FOREST FIRE SEASON - Beware of fire suppression activities occurring within Temporary Flight Restriction (TFR) areas. In many cases a NOTAM designating a temporary flight restriction area will be in effect for such areas when a fire exists. All aircrews should be extremely alert for such areas whether designated or not and avoid such areas by at least 5 NM.



3.10 GEO Reference Points. Refer to Figure 3.

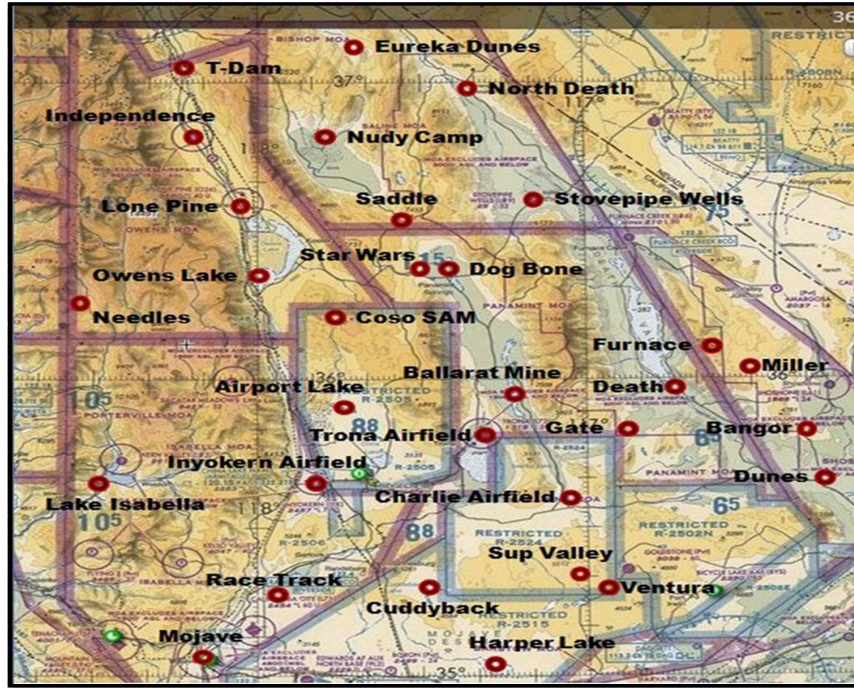


Figure 3. GEO Reference Points

3.11 Noise Sensitive Areas.

- Refer to Figure 4.
- All communities within the Complex are considered “noise sensitive areas” and must be avoided by 3,000’ (unless on a CCB approved test plan).
- Kern River area is particularly sensitive during the summer months.

3.12 National Parks & Wilderness Areas.

- Refer to Figure 4.
- Maintain at or above 3,000’ AGL and 3,000’ laterally (approximately ½ mile) from Death Valley National Park, Domeland, and John Muir Wilderness Areas.
- The Domeland Wilderness Area is located in the Isabella MOA
- Refer to Figure 5 for the Death Valley National Park boundaries. **NOTE:** Death Valley restrictions apply to the 1977 National Monument and Wilderness Area which may not be accurately reflected on sectional charts. The boundary in Figure 5 is the 1977 boundary.

3.13 Sequoia and Kings Canyon National Parks. Refer to Figure 4.

- The Kings Canyon National Park is located in the western portion of the Owens MOA
- Maintain above FL180 unless lower is required. If FL180 or below is required annotate “SEKI” in the remarks section of the Airspace Request Form.
- Do not descend below 3,000’ AGL except in an emergency situation.
- Lateral separation is 3,000’.

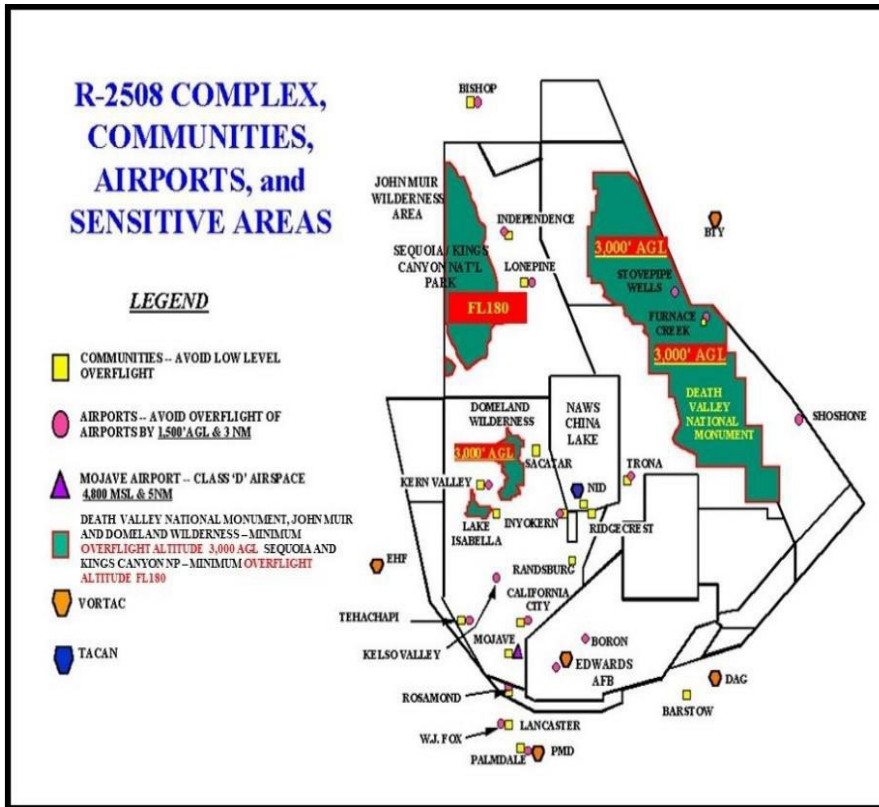


Figure 4. Communities, Airports and Sensitive Areas

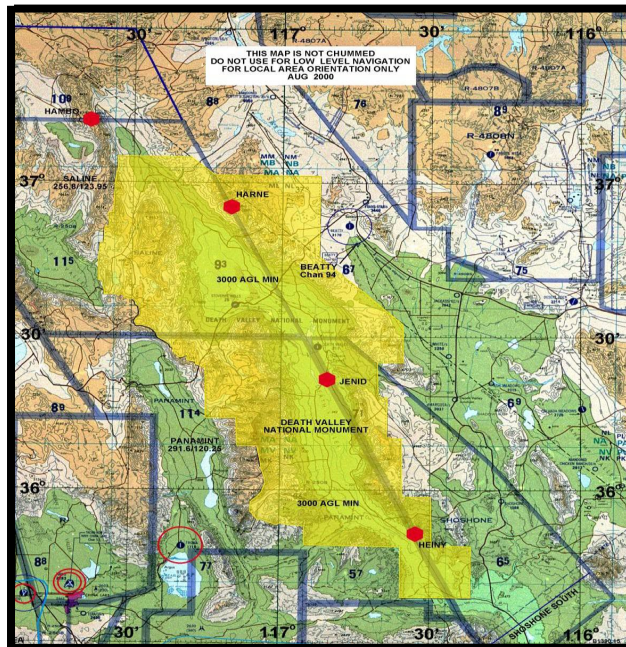


Figure 5. Death Valley National Park

**3.14 NASA Facility at Goldstone.** The Goldstone facility produces High Intensity Radiated Fields (HIRF) during high-power transmissions. The interruption of signal due to aircraft transitioning through the beam is rare and need not be considered.



Goldstone is sensitive to transmissions at 2200-2300 MHz, 8400-8500 MHz, 25,000-27,000 MHz, and 31800-32300 MHz (bands allocated to Space Research Service). Broadband jamming and aeronautical telemetry in these bands are not allowed within line of sight without prior scheduling through the Western Area Frequency Coordinator. Coordinate spectrum usage with Mojave Coordination Group (MCG) representative. Goldstone does not transmit in or near GPS bands.

Remain above 5,000' MSL (approximately 2,000' AGL) and above 10,000' MSL within 1.5 km (horizontal) from antennas at Mars and Apollo. Flights below these altitudes require pre-approval of Goldstone Frequency and Airspace Coordination (760-255-8218).

**Figure 6. Goldstone Sites**

- The NTC G3 Aviation Section is the coordinating authority for scheduling and coordinating all flight activities (e.g. fixed-wing assets flying in support of NTC rotations) over Goldstone airspace.
- Goldstone produces HIRF that could affect aircraft flying at less than 200 knots. If such slow aircraft need to enter the marked area, coordination with Goldstone Frequency and Airspace Coordination (760) 255-8218 is recommended.
- The probability of entering the beam is very low and the beam is narrow (cylinder diameter of 34m or 70m, depending on the transmitting antenna) and moves very slowly (at the rate of Earth's rotation).
- In general, the transmitters point south.
- Physiologic effects may occur for very slow aircraft, e.g. hovering helicopters in the beam for a long time. While unlikely, such aircraft are advised to stay below the transmitter beam.



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### CHAPTER 4

#### Airspace

**4.1. Internal Restricted Areas.** Refer to Figure 7. Entry into the internal restricted areas require prior approval from the using agency. Scheduling internal restricted areas does not schedule R-2508.

**4.1.1. R-2502N and R-2502E (NTC).** Desert Radio provides services on 281.45/126.2 (FM: 66.10).

Hours / Contact Details:

<b>Desert Radio</b>	24/7	DSN 470-4320/7559
<b>Range Scheduling</b>	M-F, 0800-1600L	DSN 470-3875/4321
<b>Airspace Manager</b>		DSN 470-5852/6156
<b>Facility Manager</b>		DSN 470-6369
Commercial: 760-380-(last 4 above)		

4.1.1.1. NTC Airspace Control Center (“Sundance”) directs CAS activities. Sundance is staffed one hour prior to first takeoff from Nellis AFB until 30-minutes past the last flight’s departure from R-2502N/E. If Sundance is not operational, contact Desert Radio.

4.1.1.2. Submit scheduling request NLT 5 working days prior for standard ranges, and 14-days prior for non-standard ranges. All aircraft operations require coordination with Bicycle Lake Army Field. Prior Permission Required (PPRs) should be obtained from 3 working days before operations. Contact CCF to schedule MOAs for entry/exit.

**4.1.2. R-2505, R-2506, and R-2524 (NAWCWD).** China Control provides advisories on 301.0/128.25.

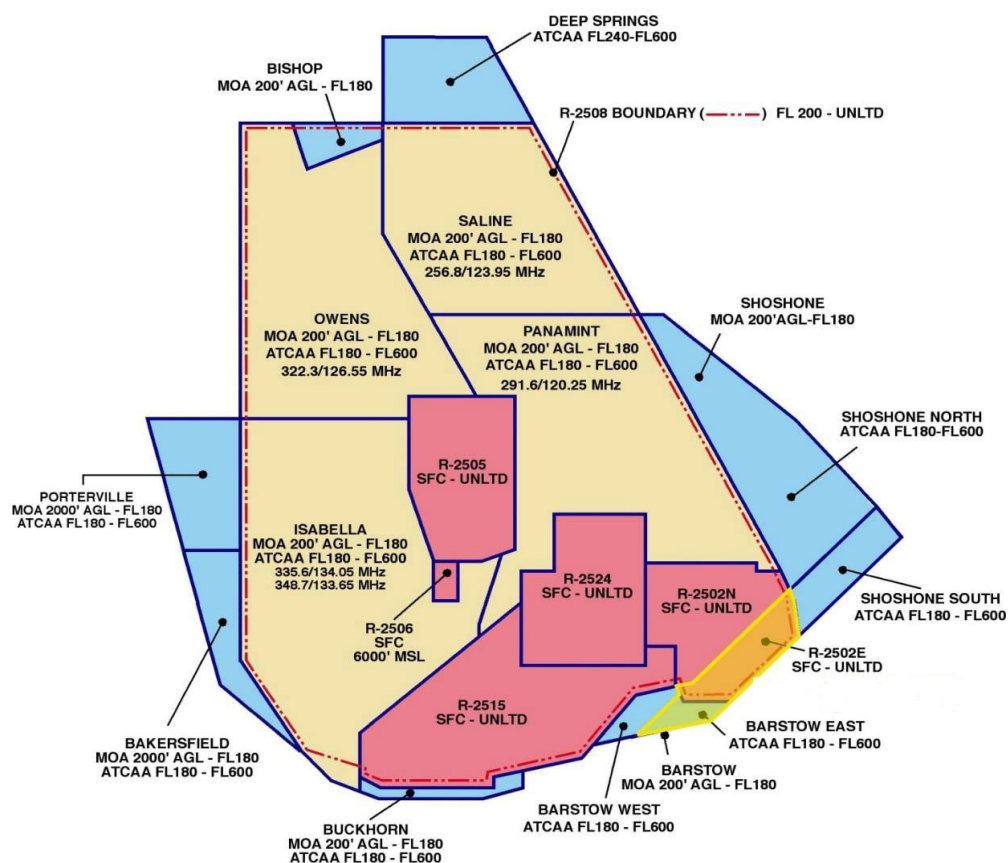
Hours / Contact Details:

<b>Airspace Manager</b>	M-Th (0700-1700L), non-civilian payday Friday (0700-1600L).	DSN 437-5480
<b>Scheduling</b>		DSN 437-6800
<b>China Control</b>		DSN 437-6908/9 FAX DSN 437-6855
Commercial: 760-939-(last 4 above)		

**4.1.3. R-2515 (412 TW).** SPORT provides advisories on 343.7/132.75.

Hours / Contact Details:

<b>SPORT</b>	As Published	DSN 527-6184
<b>R-2515 Webpage</b>	<a href="https://www.edwards.af.mil/About/R-2515-Airspace/">https://www.edwards.af.mil/About/R-2515-Airspace/</a>	
<b>Scheduling (ROC)</b>	M-F, 0630-1800L	DSN 527-4110
<b>Real-Time</b>	M-F, 0630-1800L	DSN 527-3940
<b>Airspace Manager</b>	M-F, 0730-1630L	DSN 527-2515
Commercial: 661-277-(last 4 above)		



**Figure 7. R-2508 Airspace**

4.2. **Military Operating Areas (MOA) and Air Traffic Control Assigned Airspace (ATCAA).** R-2508, MOAs, and ATCAAs combine to form four work areas: Isabella, Owens, Saline, and Panamint. The ATCAAs fill the gap between the top of the MOAs (FL180) and the base of R-2508 (FL200). When R-2508 is not active, the ATCAA may extend upward to FL600. ATCAAs are located above the MOAs (exception: BISHOP MOA), beyond the lateral borders of R-2508, to provide additional work areas up to FL600. **USE CAUTION.** Several Military Training Routes cross all work areas.

- MOAs/ATCAAs are only available to civil/LOA holders when activated for military use.
- Refer to Figure 7.
- For detailed waypoint coordinates, refer to Appendix I.
- Work area frequencies:
  - Isabella 335.6 / 134.05
  - Owens 322.3 / 126.55
  - Saline 256.8 / 123.95
  - Panamint 291.6 / 120.25
- MOA vertical limits exclude below 1,500' AGL within 3 miles of any charted airport. Exception: Mojave Airport's Class D.

- Portions of the MOAs overlay Sequoia/Kings Canyon National Parks, John Muir and Domeland Wilderness Areas, and Death Valley National Park. **NOTE:** Exclusion of MOA airspace above Death Valley National Park and Domeland Wilderness Area applies to the 1977 contours of the former National Monument and Wilderness Area. This difference may not be accurately reflected in Sectional Charts. Refer to the California Desert Protection Act of 1994:

[https://uscode.house.gov/view.xhtml?req=\(title:16%20section:410aaa-82%20edition:prelim\)](https://uscode.house.gov/view.xhtml?req=(title:16%20section:410aaa-82%20edition:prelim)).

4.2.1. **Isabella MOA/ATCAA.** Isabella is typically used for: armed/test aircraft holding, ACM, R-2505 arrivals/departures, refueling operations, and crossing of Military Training Routes (MTRs).

- Use Edwards' altimeter.
- **USE CAUTION.** The SE portion of Isabella (near Saltdale and Koehn's Dry Lake) is a high density traffic area with rapidly maneuvering aircraft at all altitudes (i.e. NID/EDW arrivals/departure, SWLL, ACM, refueling activities, crossing MTRs, amateur rocketry, etc.) (see Figure 8).

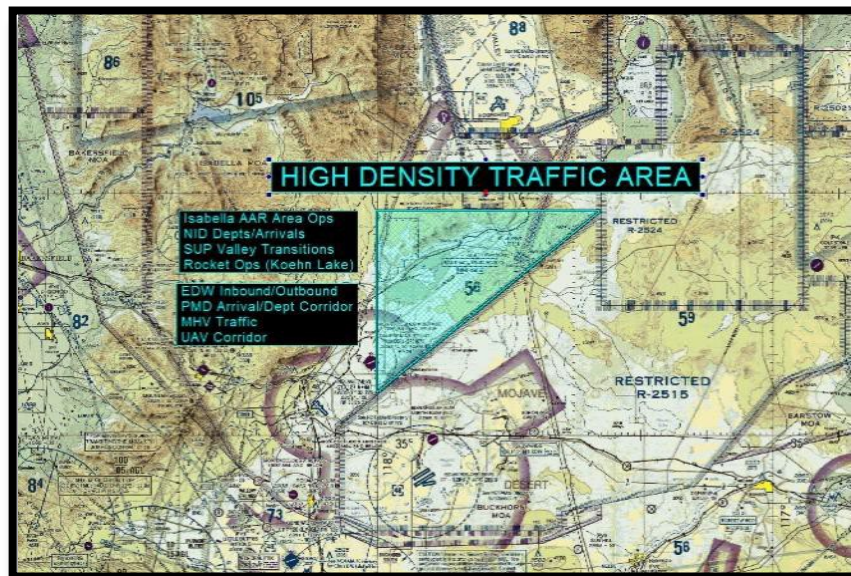


Figure 8. Isabella High Density Traffic Area

4.2.2. **Owens MOA/ATCAA.** This area is typically used by NAS Lemoore, NAWS China Lake, Fresno ANG, and Edwards AFB.

- Owens MOA/ATCAA and Bishop MOA make up the Owens work area.
- Bishop MOA is not included in the Sage 2 or Pancho 3 and must be scheduled separately.
- Use China Lake's local altimeter.
- Do not hold and/or conduct ACM over communities within the Owens Valley.
- **USE CAUTION:**
  - Be aware of the boundary difference between Owens MOA and Bishop MOA to prevent entering Oakland Air Route Traffic Control Center (ARTCC) airspace.
  - Use caution crossing Owens Valley east to west/west to east. Typical operations run north to south/south to north with multiple aircraft at varying altitudes.

4.2.3. **Bishop MOA.** Must be scheduled in advance with CCF.

- Aircrew must 'real-time' request use with JCF.
- Typical times of use are M-F, 0600-2200L. Other times by NOTAM.
- Use the Bishop altimeter when in use by Oakland ARTCC. Use the China Lake altimeter when in use by JCF or Los Angeles ARTCC.

4.2.4. **Saline MOA/ATCAA.** This area is typically used by NAS Lemoore, NAWS China Lake, Fresno ANG, and Edwards AFB. Low and high aerial refueling activities (Saline Valley).

- Use China Lake altimeter.
- Do not descend below 3,000' AGL over Death Valley National Park.
- **USE CAUTION.** Pay specific attention to the ridge crossing at **Hunter Mountain** (Figure 9) that divides the Panamint and Saline MOAs. The "saddle" on the ridgeline is a narrow passage between the MOAs and is serviced by VR-1205, which inherently possesses a high potential for a head-on collision. Pilots should fly to the right side when passing through the saddle area in order to prevent head-on collisions with aircraft passing in the opposite direction.

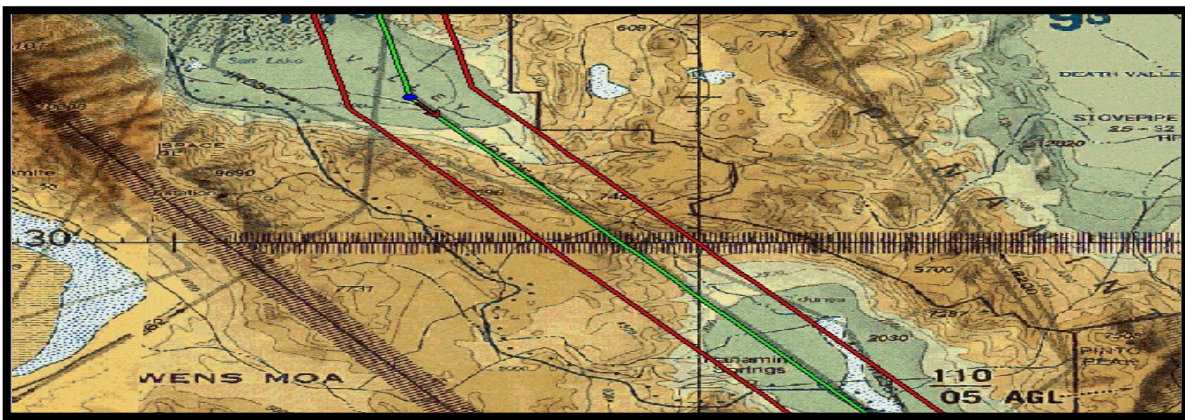


Figure 9. Hunter Mountain Saddle

4.2.5. **Panamint MOA/ATCAA.** This area is typically used in support of R-2502N, R-2502E, and R-2524. Activities also include low-altitude training, large-scale exercises, low and high-altitude refueling, and UAS transitions to/from Cheech AFB at FL190 and FL200.

- **USE CAUTION.** Refer to note in 4.2.4 and Figure 9, regarding Hunter Mountain.
- Use China Lake altimeter.

4.2.6. **Bakersfield MOA/ATCAA.** This area is outside R-2508, but may be activated for military use in conjunction with Isabella.

- Must be scheduled at least 2 *working days* in advance so CCF can coordinate with LA ARTCC.
- Aircrew must still make 'real-time' request to use this area with JCF.
- Use Edwards' altimeter.

4.2.7. **Barstow MOA and East/West ATCAAs.** This area is typically used by Edwards AFB for flight test, aircraft entering/exiting/or awaiting entry into R-2502N/E, VR-1217/VR-1218 activity.



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- M-F, 0600-2200L. Other times by NOTAM.
- Use Edwards' altimeter.
- Aircrew operating in Barstow must ensure that they request Barstow East/West in conjunction with the appropriate lower MOA airspace, as needed.
- Aircrew requiring FL240 and above in Barstow East ATCAA must request it 'real-time' with ATC facility/MRU and can expect a maximum 15-minute delay.
- **USE CAUTION.** The ATCAAs over the Barstow MOA have a different boundary than the airspace underneath. Aircrew must be aware of these differences to prevent spill-outs into the LA ARTCC airspace.

4.2.8. **Buckhorn MOA/ATCAA.** This area is typically used for test missions by Edwards AFB.

- M-F, 0600-2200L. Other times by NOTAM.
- Use Edwards' altimeter.

4.2.9. **Deep Springs ATCAA.**

- Schedule at least 2 *working days* in advance so that CCF can coordinate with Oakland ARTCC.
- Aircrew must also make a 'real-time' request for use of this area with JCF.
- Use China Lake altimeter.

4.2.10. **Porterville MOA/ATCAA.** This area is outside R-2508, but may be scheduled in conjunction with Isabella.

- Must be scheduled at least 2 *working days* in advance so CCF can coordinate with LA ARTCC.
- Aircrew must still 'real-time' request use of this area with JCF.
- NAS Lemoore aircraft use Fresno altimeter. All others use China Lake altimeter.

4.2.11. **Shoshone MOA and North/South ATCAAs.** This area is typically activated for military use for ACM, low-altitude training, large-scale exercises, low-altitude refueling, and several crossing MTRs.

- M-F, 0600-2200L. Other times by NOTAM.
- Use China Lake altimeter.
- Aircrew must make 'real-time' request with JCF.
- Aircrew operating in Shoshone must ensure they also request Shoshone North/South ATCAA in conjunction with the appropriate lower MOA airspace as needed.
- Expect a 15-minute delay in receiving clearance to operate above FL240.
- **USE CAUTION.** The ATCAAs have different boundaries than Shoshone MOA. Aircrew must be aware of these boundary differences to prevent spill-out into LA ARTCC airspace.



4.3 General Aviation Routes.

- Refer to Figure 10.
- General aviation aircraft fly VFR below FL180.

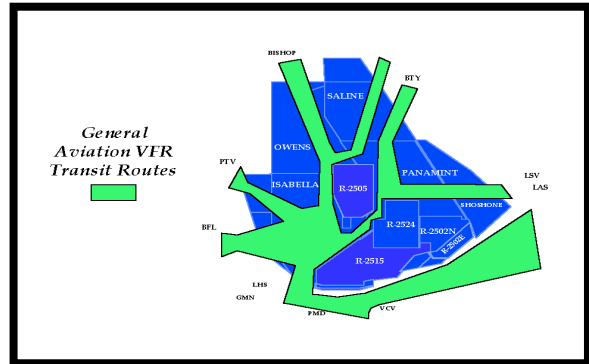


Figure 10. General Aviation Routes

4.4 Golden Triangle.

- Refer to Figure 11.
- 35-27-40N/117-26-03W 35-15-56N/117-26-03W, 35-15-56N/117-43-41W.
- Request this area 'real-time' with China Control (ASC) or SPORT.
- For transition through R-2515 to R-2524 only.
- Aircrew may be asked to remain north of Cuddeback Lake.

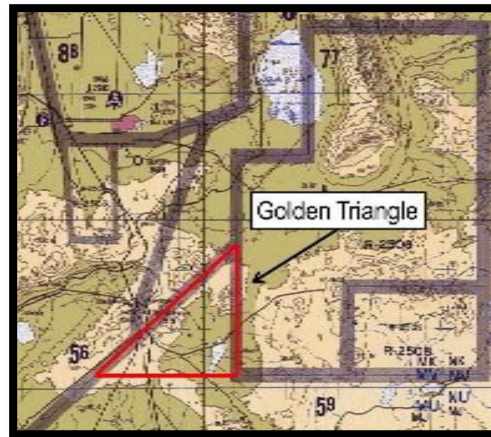


Figure 11. Golden Triangle

4.5 Trona Corridor.

- Refer to Figure 12.
- 35-47-50N/117-16-52W, 35-35-58N/117-16-52W, 35-35-58N/117-26-13W, 35-27-44N/117-26-13W, 35-23-58N/117-31-20W, 35-33-14N/117-40-42W, 35-37-25N/117-40-45W, 35-37-25N/117-36-10W, 35-40-36N/117-25-01W, 35-57-12N/117-25-03W
- Used for launching weapons systems, FL200 and above.
- Unmanned Aerial Systems (UASs) may transition between R-2505 and R-2524, FL190 or FL200.

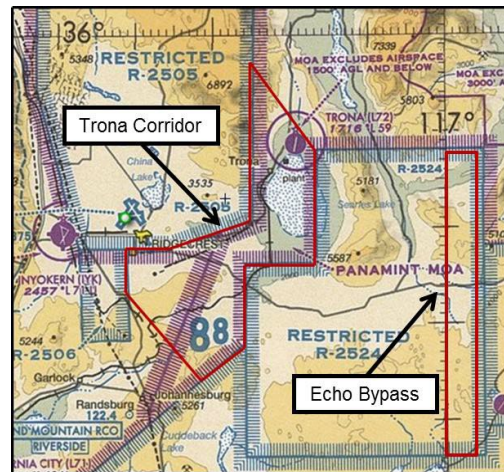


Figure 12. Trona Corridor & Echo Bypass

4.6 Echo Bypass.

- Refer to Figure 12.
- Transition route between R-2515 and Panamint (ASC must approve).

CHAPTER 5  
Flight Operations

5.1. **Targets of Opportunity.** Do not use low observable platforms as targets of opportunity. If any device tracks these platforms, the data is classified and must be safeguarded. Notify Edwards Command Post (DSN 527-3040/COMM: 661-277-3040).

5.2. **Lights-Out Operations.** Requires a LOA with the CCB. Only authorized in Saline and Panamint, FL200BFL350. Aircrew shall leave lights ON while transiting to/from internal restricted area(s). Annotate "LIGHTS OUT" in the remarks section of the airspace request form.

5.3. **Electronic Counter Measures/Chaff.** Pre-coordinate with Base Spectrum Managers. Annotate "ECM/CHAFF" in the remarks section of the airspace request form.

- WAFB, Pt Mugu            DSN 351-7983/COMM: 805-989-7983
- 412 TW                    DSN 527-2390/COMM: 661-277-2390
- NAWCWD                DSN 437-6827/COMM: 760-939-6827
- NTC                        DSN 470-3043/COMM: 760-380-3043

5.4. **Flares.** Not authorized in R-2508 Complex. Flare use inside internal restricted areas must be coordinated with the scheduling agency.

5.5. **Non-eye Safe Laser.** Not authorized in the Complex unless approved by CCB. Expect Sat/Sun, 2200-0600L, or above FL400. User must confirm compliance with Laser Clearance House and Safety Review Board mitigation recommendations.

5.6. **Air Combat Maneuvers (ACM).** Notify JCF when using areas for ACM.

- Avoid ACM over towns – especially Owens Valley (regardless of altitude).
- **USE CAUTION**, when conducting ACM below RADAR coverage and in radio blind spots.

5.7. **Large Force Exercise (LFE) / Large Scale Exercise (LSE) / Large Force Test Event (LFTE).**

- These are considered non-standard events that require prior CCB review and approval.
- Defined as more than 10 fixed-wing aircraft in the Complex simultaneously.
- Submit a concept of operations (CONOP) at least 30-days in advance to CCF. The CONOP should include maps, flight profiles, times, altitudes, restrictions, etc.
- Recommend operating outside of 1000-1500L M-F, to avoid high density traffic times.
- Expect 'non-exclusive use' outside of internal restricted areas.
- Do not place refueling or anchor/orbit points close to boundaries or areas of concentrated activities, e.g. Owens Dry Lake, Saltdale, or Trona Gap.
- Do not conduct unrestricted ACM. For Panamint, conduct ACM north of 36-08N and west of Telescope Peak (36-08N/117-05W).
- Invite the following to planning meetings: JCF, CCF, and any impacted internal restricted area airspace office, scheduling office, and controlling agency (i.e SPORT, China Lake (ASC), etc.).
- **30-calendar days from event.** Provide JCF and CCF the following (via email):
  - Point-of-Contact.
  - Dates and times.

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- Signed Letter of Agreement (request template from CCF) for users that may require it.
- Daily Brief Sheet data (i.e. number/type aircraft, tanker plan, map, altitudes, point of contact details, etc.)
- AWACs/E-2 location, altitude, frequency, communication plan.
- Basic scenario (ingress/egress, tanking, chaff, etc.).
- Check-in/check-out procedures with JCF facility.
- Safety mitigation plan (i.e. COVID, weather, SAR, etc.).
- Status of coordination with the following (as applicable):
  - Western Service Area AFREP: 206-231-2500.
  - Western Service Area NAVREP: 206-231-2502/03/04.
  - Western Service Area Army Rep: 206-231-2505/06.
  - LA ARTCC MILREP: 661-265-8249.
  - Oakland ARTCC MILREP: 510-745-3334.
- **5-working days from event.**
  - Provide CCF the following (via email):
    - Airspace Request Forms.
    - Squawk Codes.
    - Finalized communication plan.
  - Point of contact shall ensure non-tanker participants have received an annual airspace briefing.
- **3-working days from event.**
  - **Changes, other than minor, will not be accepted after 1600L.**
- **1-working day from event.**
  - Event point of contact shall ensure tankers received an airspace briefing from CCF.

### 5.8. Tow Operations. Only authorized during VMC conditions.

- Category C (1 SM from tow aircraft):
  - Chase aircraft is required.
  - Night operations not authorized.
  - CCB approval is required.
  - Submit CONOP to CCF as soon as Safety Review Board (SRB) or Executive Review Board (ERB) has been accomplished.
  - Must be finalized and scheduled NLT 5 working days prior.
- Category B (500' – 1 SM from tow aircraft):
  - Chase aircraft is required.
  - Night operations not authorized.
  - Submit visual map of route to CCF.
- Category A (within 500' from tow aircraft):
  - Annotate in the remarks section of the airspace request form.
  - Submit visual map of route to CCF.
- Avoid populated areas while conducting tow operations.
- Pilot shall notify JCF/MRU when conducting tow operations.
- Notify JCF/MRU immediately if towed object is inadvertently released.

5.9. **Refueling.** Refer to Figure 13.

- **USE CAUTION.** The R-2508 Complex is VFR – see and avoid. Refueling activities are not provided ‘protected airspace’ or ‘exclusive use airspace.’
- Non-participants should avoid refueling activities by 2,000’ vertically and/or 5 miles laterally to the maximum extent possible.
- **Discrete Tanker Beacon Codes.** Active refueling tankers will be assigned the below beacon codes to provide enhanced situational awareness to other Complex users.
  - MODE 3:
    - Departing Edwards: 0051-0057 (assigned by SPORT)
    - All others: 5253-5257 (assigned by JCF)
- There are four unpublished refueling areas:
  - Isabella (ARISB)
  - Coaldale (AROAL)
  - Shoshone (ARSHN)
  - Linus (ARLNS)

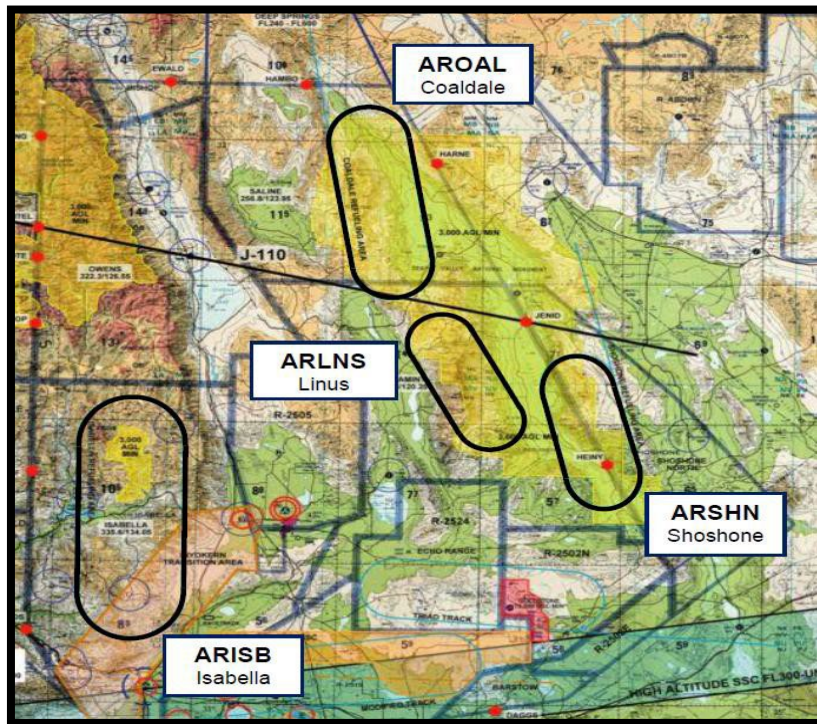


Figure 13. Refueling Areas

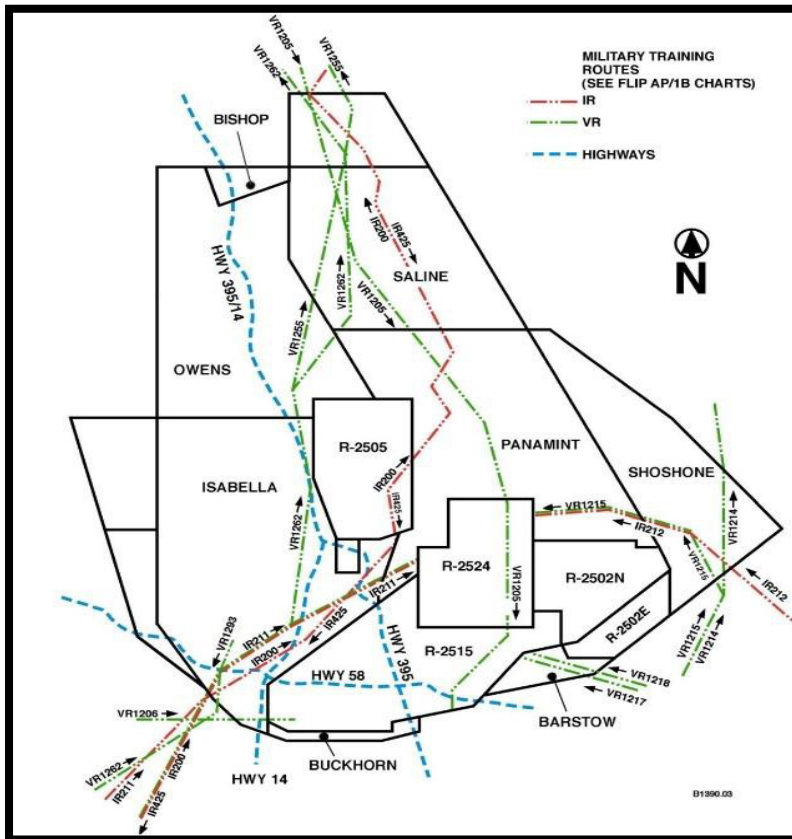
- **Isabella (ARISB)** (35-13N/118-04-30W).
  - Entry: PMD 345/35. Outbound: 345R, left turns.
  - Standard altitudes: FL210B230, FL240B260, and FL270B290.
  - **USE CAUTION.** High speed cross traffic FL200 and below.

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- **Coaldale (AROAL) (37-00N/117-33W).**
  - Entry: OAL 155/60. Outbound: OAL 155R, left turns.
  - **USE CAUTION.** No radar coverage below 10,000' MSL.
  - Receivers remain above 3,000' AGL to avoid the park.
- **Shoshone (ARSHN) (35-50N/116-26W).**
  - Entry: BTY 150R, left turns. Outbound: BTY 150/60.
  - **USE CAUTION.** No radar coverage below 10,000' MSL.
  - Receivers remain above 3,000' AGL to avoid the park.
  
- **Linus (ARLNS) (N35-57.53/ W117-02.81, N36-02.15/W116-51.46, N36-19.88/W117-03.45, N36-15.35/W117-14.59).**
  - For use during Green Flag only.
  - Entry: N35-57.53/W117-02.81. Left turns.
  - Schedule via Nellis AFB (682-8570/FAX 682-4274).
  - Receivers remain above 3,000' AGL to avoid the park.

### 5.10. Military Training Routes (MTR).

- Refer to Figure 14.
- Refer to FLIP AP/1B for scheduling and special instructions.



**Figure 14. Military training Routes**



5.11. Sidewinder Low Level (SWLL). Refer to Figure 15. **Unpublished and for LOCAL USE ONLY.**

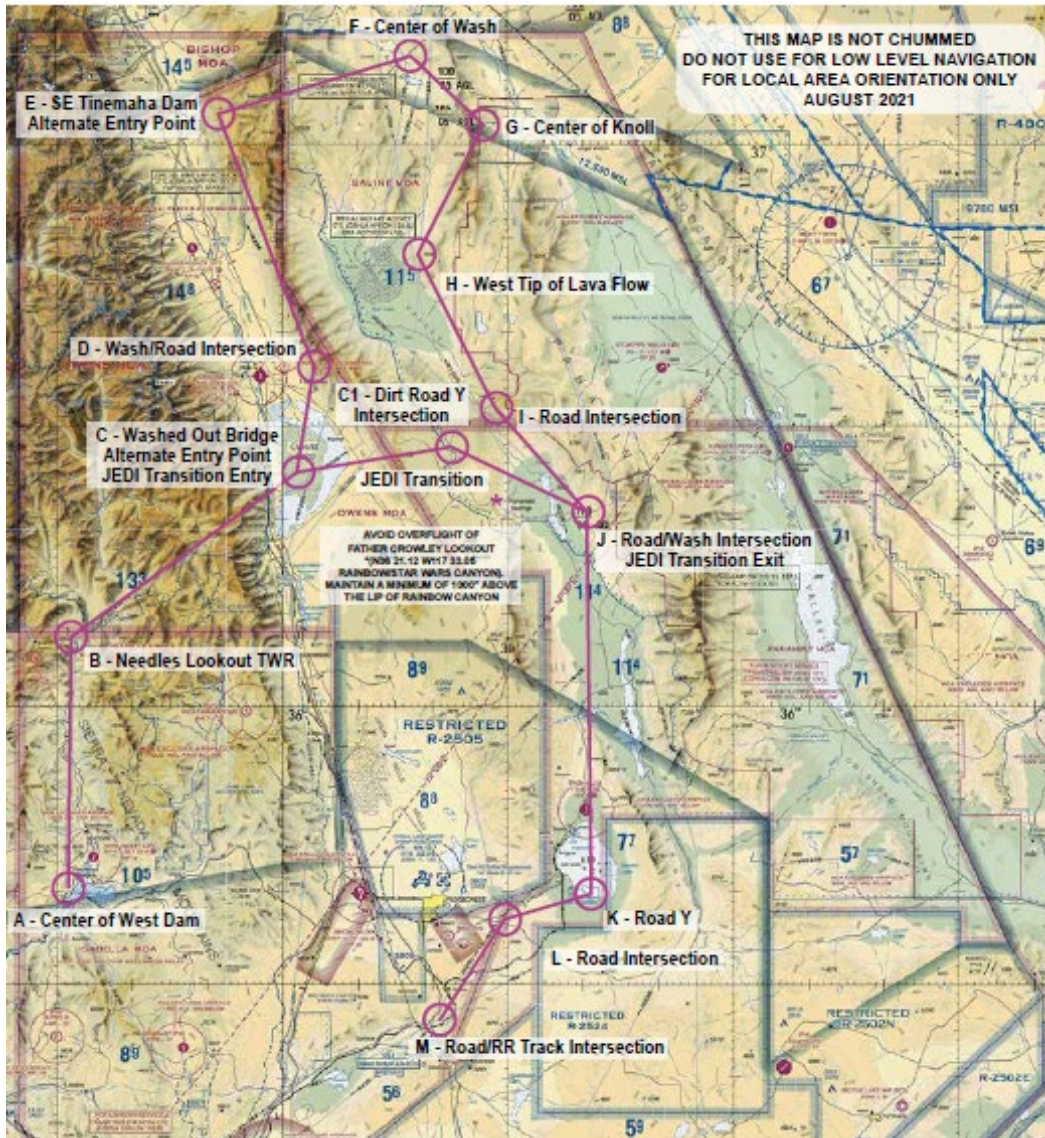


Figure 15. Sidewinder Low Level

## SIDEWINDER LOW LEVEL (Rev 4)

01 July 2021

**CAUTION:** These are R-2508 procedural controls for local use only. Points will be flown sequentially (i.e. A, B, C...M or C, J, K...M, etc). **OPPOSITE DIRECTION IS PROHIBITED.**

**Note:** The SIDEWINDER and JEDI Transition are not published MTRs.

### ROUTE DESCRIPTION:

#### PT Lat/Long Pt Description/Elevation

A N 35 38.75 Ctr of West Dam/2575 W118 28.94  
B N 36 06.60 Needles Lookout Twr/8107 W118 29.12  
C N 36 24.74 Washed Out Bridge/3615 W118 00.57  
C1 N 36 25.70 Dirt Road Y Int/5206  
W 117 38.45 (Jedi Only)  
D N 36 35.61 Wash/Road Int/3635  
W117 58.53  
E N 37 02.88 SE Tinemaha Dam/3894 W118 12.79  
F N 37 09.18 Center of Wash/2956 W117 46.19  
G N 37 02.17 Center of Knoll/4738 W117 37.09  
H N 36 47.95 West Tip Lava Flow/1352 W117 45.69  
I N 36 30.84 Road Int/6109  
W117 34.05  
J N 36 20.69 Road/Wash Int/2093  
W117 21.08  
K N 35 39.34 Road Y/1624  
W117 21.62  
L N 35 36.61 Road Int/2480  
W117 31.56  
M N 35 25.40 Road/RR Int/2785  
W117 40.32

**ALTITUDE:** ALTITUDE: NLT 200' AGL to 3000' AGL (points A to B); NLT 200' AGL (points B to K); NLT 500' AGL (points K to M). Climb as required to avoid noise sensitive areas and airports (note 8).

**ROUTE WIDTH** – 2 NM either side of centerline.

#### Special Operating Procedures:

(1) Entry Procedure: Prior to entry notify Joshua of intentions and planned Entry/Exit point. Above 3000 AGL and prior to route entry make intentions call on Low Level Common (315.9). Give way to any traffic already established on the route prior to entry.

(2) A to B remain above 3000 AGL until 3 NM North of Kern Valley Airport to avoid Lake Isabella and surrounding communities.

(3) Alternate Entry: This is a procedural control and traffic may enter at any point. Preferred alternate entry points are C and E.

(4) Alternate Exit: This is a procedural control and traffic may exit at any point. Preferred alternate exit points are H and K.

(5) All aircraft operating on the Sidewinder/Jedi Transition will utilize the R-2508 low altitude common frequency 315.9. When entering low level environment transmit in the blind call sign, number and type of aircraft, and intentions. Monitor 315.9 until exiting low altitude regime. Repeat calls entering new areas, or crossing ridge lines.

(6) Slower aircraft (i.e. C-12, T-34) may be on the route at the same time. Use caution for airspeed variations that may exist between aircraft. Aircraft being overtaken has the right of way.

(7) To mitigate the risk of opposite direction traffic, offset right of centerline when transiting saddles between valleys. Rising terrain may mask advisory calls.

(8) Avoid all noise sensitive areas by 3000' AGL or 3000' laterally. Avoid all airports along route by 1500' AGL or 3 NM.

(9) Point B to C, avoid the extremely noise sensitive areas of Olancho and Cartago.

(10) Point C to D, and C1 to J avoid the extremely noise sensitive areas of Keeler and Lone Pine. Caution: intensive hang glider activity in the vicinity of Dolomite and northeast shore of Owens lake.

(11) Caution: high migratory bird activity between F and H during daylight hours.

(12) **CAUTION:** Possible merging traffic from aircraft on Jedi Transition (approaching from west via Point C1). Sidewinder users offset east of Point J for de-confliction. Sidewinder users make mandatory radio call approaching Point J "Call sign, Sidewinder, approaching Point Juliet". Make calls on 315.9

(13) Point J to K. 198' multi unlit towers N35°53.797 W117°17.558. Avoid Trona Airport by 1500' AGL or 3 NM.

(14) Point K to M. Watch for traffic northbound to China Lake initial at 4000' MSL.

(15) Point L to M, route transits underneath instrument procedure at NID (arc and final approach). Use caution if exiting route prior to point M.

(16) Conflicts: A to L: IR-236; B to D: VR-1255; E to I: VR-1205-1255-1262; I to L: VR-1262, IR-200; K to M: IR-200-211.

**JEDI TRANSITION:** At Point C proceed east to Point C1 and to Point J. **Avoid Overflight of Father Crowley Lookout (N36 21.12 W117 33.05 – Rainbow/Star Wars Canyon). Maintain a minimum of 1000' above the lip of Rainbow Canyon.** **CAUTION:** Possible merging Sidewinder traffic from the north via Point I. Jedi users offset west of Point J for de-confliction. Jedi users make mandatory radio call approaching Point J "Call sign, Jedi Transition, approaching Point Juliet". Make calls on 315.9.

### 5.12. Remotely Piloted Aircraft (RPA) / Unmanned Aerial Systems (UAS)

- RPA/UAS operations must occur at or above FL400 (no chase required).
- RPA/UAS operations below FL400 require a chase aircraft.
- Transitions (Fig. 16) must be conducted at FL190 or FL200 and do not require a chase.
- R-2505 and R-2524 transitions must be scheduled at or above FL190 and do not require a chase.
- GREEN RTE: Authorized after flying is complete Mon-Fri, weekends, or FL400 and above.
- BLUE RTE: For use Mon-Fri

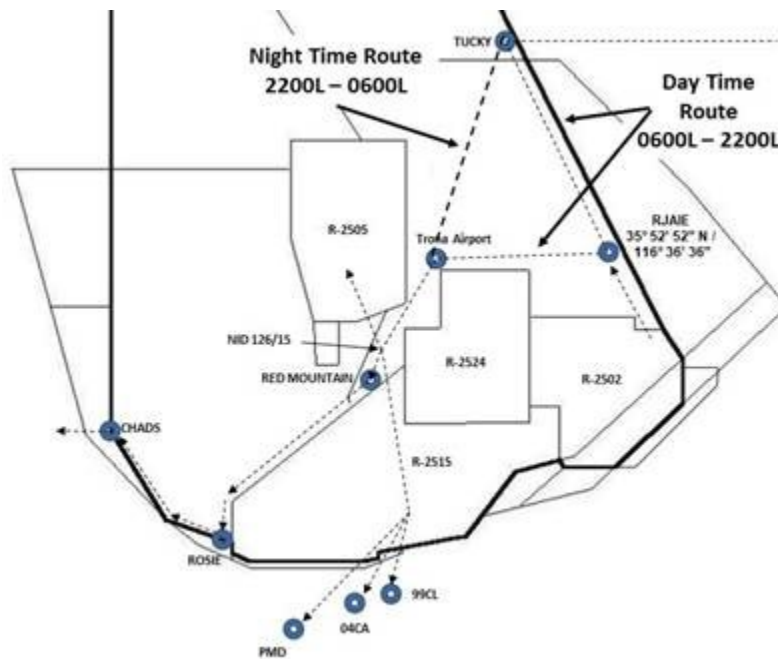


Figure 16. RPA / UAS Transitions

### 5.13. Airborne Radar Unit (ARU) / Airborne Warning and Control Systems (AWACS).

- Initiate radar correlation check with JCF.
- Do not provide ATC services to mission aircraft.
- Do not change MODE 3 codes while inside the Complex.
- Notify JCF of:
  - Frequency for direct communication with mission aircraft.
  - An emergency or an aircraft that requires special handling.
  - 5-minute advance notice of mission completion.
  - Call sign of the first element that has completed mission.
  - Position of last element that will exit the Complex.
  - Advise when mission is complete.
  - Advise mission aircraft to remain in assigned airspace and contact JCF.
  - JCF will not provide advisories between mission aircraft.
- JCF will:
  - Coordinate with ARTCC for inbound/outbound aircraft.
  - Issue a work area clearance & beacon code to mission aircraft.
  - Forward ACID/CODE to the AWACs/ARU.



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- Inactively monitor AWACs/ARU mission/tactical frequency.
- Provide traffic advisories and alerts on non-mission aircraft.
- Provide boundary advisories on mission/tactical frequency.
- Issue departure clearances and perform ARTCC coordination.

### 5.14. Supersonic Operations. Refer to Figure 17.

- Authorized in High-Altitude and Black Mount Supersonic corridors when scheduled.
- To schedule, up until day prior to execution, contact 412 OSS/OSOS (DSN 527-4110/661-277-4110).
- For same day scheduling or changes, contact 412 OSS/OSOS (DSN: 527-3940/661-277-3940).
- All other areas required CCB approval.

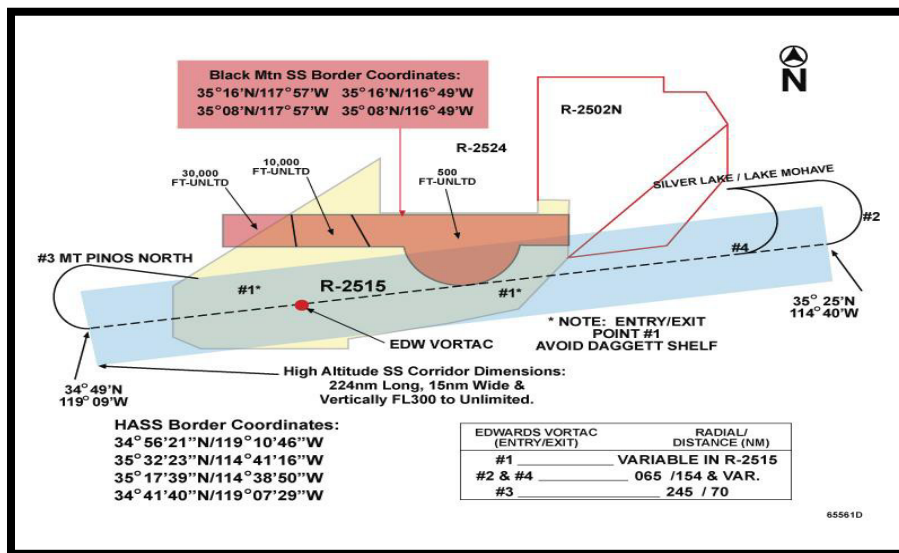


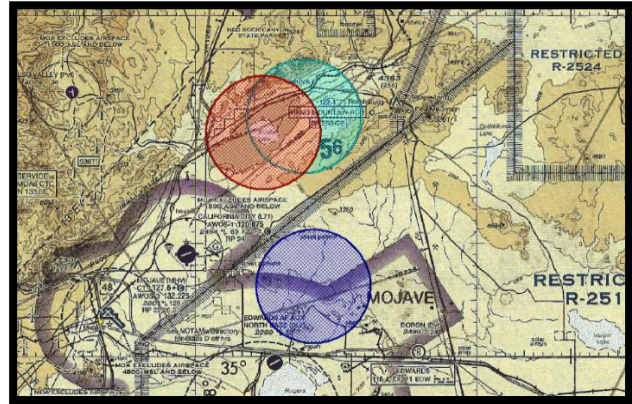
Figure 17. Supersonic Corridors

5.15. **Civil Activities.** Numerous types of civil flight activities occur within R-2508. Updates will be posted on the Daily Brief Sheet.

5.16. **Parachute Activity.** Occasionally occurs at California City Airport, surface to 17,999' MSL. When

notified, CCF will post on the Daily Brief Sheet.

**5.17. Amateur Rocket Activity.** Refer to Figure 18. Surface to highest altitude will listed on their COA. Activity may also involve sUAS filming in the same area.



**Figure 18. Amateur Rocket Activity**

**5.18. Scheduling Complex Special Activities/Special Handling:** are desired activities that cannot be accommodated by current R-2508 doctrine. For example operational requests like non-standard lasing.

- Special Activities that require “special handing” are recommended to submit concept of operations proposal (CON OPS including maps, flight profiles, times, operating altitudes, flight restrictions, etc.). Lead time is required to allow all necessary coordination/changes to be approved prior to the scheduled operation.
- Advanced notice is required to allow other complex users to be briefed on the operations (times, routes, altitudes, activities, etc.) and de-conflict the proposed operation from other activities within the R-2508 Complex. A statement will also be included on the R-2508 Daily Brief Sheet capturing the special activity operations.

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### Appendix I Airspace & Geographic Waypoints

NAME	LAT (N) / LONG (W)	
<b>ISABELLA</b>		
MOA JO 7400.10	Beginning at lat. 36°08'00"N., long. 118°35'03"W to lat. 36°08'00"N., long. 117°53'03"W thence south and east along the boundary of R-2505 to lat. 35°39'15"N., long. 117°29'26"W to lat. 35°21'00"N., long. 117°38'33"W to lat. 35°19'20"N., long. 117°38'33"W thence along the western boundary of R-2515 to lat. 34°49'40"N., long. 118°05'48"W to lat. 34°48'00"N., long. 118°05'48"W to lat. 34°51'00"N., long. 118°14'03"W to lat. 34°56'00"N., long. 118°21'03"W to lat. 35°15'00"N., long. 118°35'03"W, to the point of beginning.	
ATCAA CCB/JCF/ZLA/ZOA LOA	Beginning at 36 08 00 North 118 35 03 West thence direct 36 08 00 North 117 53 03 West thence south and east along the boundary of R-2505 to 35 39 15 North 117 29 26 West thence direct 35 21 00 North 117 38 33 West thence direct 35 19 20 North 117 38 33 West thence along the western boundary of R-2515 to 34 49 40 North 118 05 48 West thence direct 34 48 00 North 118 05 48 West thence direct 34 51 00 North 118 14 03 West thence direct 34 56 00 North 118 21 03 West thence direct 35 15 00 North 118 35 03 West, thence direct to point of beginning.	
Lake Isabella	35-39-00	118-23-00
Needles	36-07-00	118-29-00
Inyokern Airfield	35-38-00	117-50-00
Mojave	35-03-00	118-08-00
<b>OWENS</b>		
MOA JO 7400.10	Beginning at lat. 37°12'00"N., long. 118°35'03"W to lat. 37°12'00"N., long. 118°26'03"W to lat. 37°02'00"N., long. 118°20'03"W to lat. 37°09'00"N., long. 118°00'03"W to lat. 36°46'00"N., long. 118°00'03"W to lat. 36°14'00"N., long. 117°36'03"W thence along the northern and western boundaries of R-2505 to lat. 36°08'00"N., long. 117°53'03"W to lat. 36°08'00"N., long. 118°35'03"W, to the point of beginning.	
ATCAA CCB/JCF/ZLA/ZOA LOA	Beginning at 37 12 00 North 118 35 03 West thence direct 37 12 00 North 118 26 03 West thence direct 37 02 00 North 118 20 03 West thence direct 37 09 00 North 118 00 03 West thence direct 36 46 00 North 118 00 03 West	

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	thence direct 36 14 00 North 117 36 03 West thence along the northern and western boundaries of R-2505 to thence direct 36 08 00 North 117 53 03 West thence direct 36 08 00 North 118 35 03 West, thence direct to point of beginning.	
Tinemaha "T- Dam"	37-03-41.50	118-13-10.80
Independence	36-48-54.79	118-12-15.41
Lone Pine	36-35-25.35	118-02-47.25
Owens Dry Lake Bed	36-21-32.90	118-57-46.90
<b>SALINE</b>		
MOA JO 7400.10	Beginning at lat. 37°12'00"N., long. 118°00'03"W to lat. 37°12'00"N., long. 117°20'03"W to lat. 36°30'00"N., long. 116°55'03"W to lat. 36°30'00"N., long. 117°48'03"W to lat. 36°46'00"N., long. 118°00'03"W to the point of beginning. Excluding that airspace 3000 feet AGL and below south and east of a line beginning at lat. 37°01'19"N., long. 117°13'39"W to lat. 37°01'19"N., long. 117°13'50"W at lat. 37°05'01"N., long. 117°18'54"W at lat. 37°05'05"N., long. 117°33'47"W at lat. 36°58'57"N., long. 117°33'47"W at lat. 36°58'56"N., long. 117°34'05"W at lat. 36°53'55"N., long. 117°34'11"W at lat. 36°53'51"N., long. 117°35'16"W at lat. 36°51'10"N., long. 117°35'16"W at lat. 36°51'08"N., long. 117°36'20"W at lat. 36°47'58"N., long. 117°36'18"W at lat. 36°47'51"N., long. 117°37'07"W at lat. 36°40'21"N., long. 117°37'08"W at lat. 36°40'21"N., long. 117°36'03"W at lat. 36°37'45"N., long. 117°36'05"W at lat. 36°37'45"N., long. 117°31'44"W at lat. 36°36'52"N., long. 117°31'44"W at lat. 36°36'56"N., long. 117°30'53"W at lat. 36°36'38"N., long. 117°30'36"W at lat. 36°36'31"N., long. 117°29'54"W at lat. 36°35'54"N., long. 117°29'43"W at lat. 36°35'27"N., long. 117°28'59"W at lat. 36°35'29"N., long. 117°28'41"W at lat. 36°34'21"N., long. 117°28'32"W at lat. 36°33'29"N., long. 117°28'45"W at lat. 36°32'39"N., long. 117°30'16"W at lat. 36°31'56"N., long. 117°30'08"W at lat. 36°31'29"N., long. 117°28'20"W at lat. 36°30'16"N., long. 117°25'34"W at lat. 36°30'00"N., long. 117°25'35"W.	
ATCAA CCB/JCF/ZLA/ZOA LOA	Beginning at 37 12 00 North 118 00 03 West thence direct 37 12 00 North 117 20 03 West	

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	thence direct 36 30 00 North 116 55 03 West thence direct 36 30 00 North 117 48 03 West thence direct 36 46 00 North 118 00 03 West, thence direct to point of beginning.	
Eureka Dunes	37-05-58	117-40-22
Nudy Camp	36-47-17.80	117-46-25.20
Saddle	36-32-02.40	117-33-43.60
<b>PANAMINT</b>		
MOA JO 7400.10	Beginning at lat. 36°30'00"N., long. 117°48'03"W to lat. 36°30'00"N., long. 116°55'03"W to lat. 35°34'30"N., long. 116°23'33"W thence along the northern boundary of R-2502N, the eastern, northern, and western boundaries of R-2524, and the northwestern boundary of R-2515 to lat. 35°19'20"N., long. 117°38'33"W to lat. 35°21'00"N., long. 117°38'33"W to lat. 35°39'15"N., long. 117°29'26"W thence along the eastern and northern boundaries of R-2505 to lat. 36°14'00"N., long. 117°36'03"W to the point of beginning. Excluding that airspace (1) 3000 feet AGL and below north and east of a line beginning at lat. 36°30'00"N., long. 117°25'35"W to lat. 36°29'46"N., long. 117°25'36"W to lat. 36°27'14"N., long. 117°22'01"W to lat. 36°25'41"N., long. 117°20'58"W to lat. 36°25'34"N., long. 117°20'29"W to lat. 36°26'16"N., long. 117°19'11"W to lat. 36°25'00"N., long. 117°18'36"W to lat. 36°25'10"N., long. 117°17'57"W to lat. 36°24'15"N., long. 117°17'23"W to lat. 36°23'48"N., long. 117°15'36"W to lat. 36°15'57"N., long. 117°15'33"W to lat. 36°13'55"N., long. 117°09'09"W to lat. 36°08'44"N., long. 117°09'04"W to lat. 36°08'40"N., long. 117°04'39"W to lat. 36°06'58"N., long. 117°03'47"W to lat. 36°05'54"N., long. 117°04'33"W to lat. 36°05'28"N., long. 117°03'54"W to lat. 36°01'42"N., long. 117°02'34"W to lat. 35°58'53"N., long. 117°04'31"W to lat. 35°58'37"N., long. 117°05'17"W to lat. 35°57'13"N., long. 117°06'45"W to lat. 35°55'23"N., long. 117°06'35"W to lat. 35°54'11"N., long. 117°05'24"W to lat. 35°53'10"N., long. 117°01'39"W to lat. 35°52'54"N., long. 116°55'21"W to lat. 35°47'44"N., long. 116°55'22"W to lat. 35°47'44"N., long. 116°36'05"W to lat. 35°39'03"N., long. 116°36'01"W	

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	to lat. 35°39'03"N., long. 116°26'06"W (2) 1500 feet AGL and below within a 3NM radius of the Trona airport.	
ATCAA CCB/JCF/ZLA/ZOA LOA	Beginning at 36 30 00 North 117 48 03 West thence direct 36 30 00 North 116 55 03 West thence direct 35 34 30 North 116 23 33 West thence along the northern boundary of R-2502N, the eastern, northern, and western boundary of R-2524, and the northwestern boundary of R-2515 to 35 19 20 North 117 38 33 West thence direct 35 21 00 North 117 38 33 West thence direct 35 39 15 North 117 29 26 West thence along the eastern and northern boundary of R-2505 to 36 14 00 North 117 36 03 West thence direct to point of beginning.	
Starwars Canyon	36-21-48.80	117-30-32.30
Dogbone	36-23-13.80	117-24-18.10
Ballarat Mines	35-56-43.30	117-12-02.05
Trona Airfield	35-48-44.20	117-19-37.70
<b>SHOSHONE</b>		
MOA JO 7400.10	Beginning at lat. 36°30'00"N., long. 116°55'03"W to lat. 36°30'00"N., long. 116°47'03"W to lat. 36°06'00"N., long. 116°18'03"W to lat. 35°39'00"N., long. 115°53'03"W to lat. 35°18'45"N., long. 116°18'48"W to lat. 35°28'35"N., long. 116°18'48"W to lat. 35°34'30"N., long. 116°23'33"W to the point of beginning. Excluding that airspace (1) 3000 feet AGL and below north and west of a line from beginning at lat. 35°39'03"N., long. 116°26'06"W to lat. 35°39'03"N., long. 116°21'48"W to lat. 35°48'14"N., long. 116°21'49"W to lat. 35°48'11"N., long. 116°29'41"W to lat. 35°52'17"N., long. 116°29'43"W to lat. 35°52'18"N., long. 116°29'22"W to lat. 35°58'22"N., long. 116°29'26"W to lat. 35°58'23"N., long. 116°35'47"W to lat. 36°10'08"N., long. 116°35'47"W to lat. 36°10'11"N., long. 116°38'58"W to lat. 36°17'57"N., long. 116°39'01"W to lat. 36°17'58"N., long. 116°40'33"W to lat. 36°18'30"N., long. 116°41'05"W to lat. 36°24'54"N., long. 116°41'04"W to lat. 36°24'54"N., long. 116°40'51"W (2) 1500 feet AGL and below within a 3NM radius of the Shoshone airport.	
North ATCAA CCB/JCF/ZLA/ZOA LOA	Beginning at 36 30 00 North 116 55 03 West thence direct 36 30 00 North 116 47 03 West thence direct 36 06 00 North 116 18 03 West	



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	<p>thence direct 35 44 15 North 115 57 48 West  thence direct 35 28 35 North 116 18 48 West  thence direct 35 34 30 North 116 23 33 West  thence direct to point of beginning.</p>
<p>South ATCAA  CCB/JCF/ZLA/ZOA LOA</p>	<p>Beginning at 35 44 15 North 115 57 45 West  thence direct 35 39 00 North 115 53 00 West  thence direct 35 18 45 North 116 18 46 West  thence direct 35 28 35 North 116 18 46 West  thence direct to point of beginning.</p>
<p><b>DEATH VALLEY</b></p>	
<p><b><i>NOTE: Exclusion of MOA airspace above Death Valley National Park and Domeland Wilderness Area applies to the 1977 contours of the former National Monument and Wilderness Area. This difference in affected airspace may not be accurately reflected in Sectional Charts. Refer to Figures 2-10 &amp; 2-11, the California Desert Protection Act of 1994</i></b>  (<a href="https://uscode.house.gov/view.xhtml?req=(title:16%20section:410aaa-82%20edition:prelim) or contact CCF for more information.">https://uscode.house.gov/view.xhtml?req=(title:16%20section:410aaa-82%20edition:prelim) or contact CCF for more information.</a>)</p>	
<p>Boundary of Death  Valley National Park  (Monument  Boundaries) within  <b>Saline</b>  R-2508 Handbook</p>	<p>Beginning at 36°30'00"N/117°25'35"W  thence direct 37°01'19"N/117°13'50"W  thence direct 37°05'01"N/117°18'54"W  thence direct 37°05'05"N/117°33'47"W  thence direct 36°58'57"N/117°33'47"W  thence direct 36°58'56"N/117°34'05"W  thence direct 36°53'55"N/117°34'11"W  thence direct 36°53'51"N/117°35'16"W  thence direct 36°51'10"N/117°35'16"W  thence direct 36°51'08"N/117°36'20"W  thence direct 36°47'58"N/117°36'18"W  thence direct 36°47'51"N/117°37'07"W  thence direct 36°40'21"N/117°37'08"W  thence direct 36°40'21"N/117°36'03"W  thence direct 36°37'45"N/117°36'05"W  thence direct 36°37'45"N/117°31'44"W  thence direct 36°36'52"N/117°31'44"W  thence direct 36°36'56"N/117°30'53"W  thence direct 36°36'38"N/117°30'26"W  thence direct 36°36'31"N/117°29'54"W  thence direct 36°35'54"N/117°29'43"W  thence direct 36°35'27"N/117°28'59"W  thence direct 36°35'29"N/117°28'41"W  thence direct 36°34'21"N/117°28'32"W  thence direct 36°33'29"N/117°28'45"W  thence direct 36°32'39"N/117°30'16"W  thence direct 36°31'56"N/117°30'08"W  thence direct 36°31'29"N/117°28'20"W  thence direct 36°30'16"N/117°25'34"W  thence direct 36°30'00"N/117°25'35"W</p>
<p>Boundary of Death  Valley National Park  (Monument</p>	<p>Beginning at 36°30'00"N/117°25'35"W  thence direct 36°29'46"N/117°25'36"W  thence direct 36°27'14"N/117°22'01"W</p>

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<p>Boundaries) within <b>Panamint</b> R-2508 Handbook</p>	<p>thence direct 36°25'41"N/117°22'01"W thence direct 36°25'34"N/117°20'58"W thence direct 36°26'16"N/117°19'11"W thence direct 36°25'00"N/117°18'36"W thence direct 36°25'10"N/117°17'57"W thence direct 36°24'15"N/117°17'23"W thence direct 36°23'48"N/117°15'36"W thence direct 36°13'57"N/117°15'33"W thence direct 36°13'55"N/117°09'09"W thence direct 36°08'44"N/117°09'04"W thence direct 36°08'40"N/117°09'04"W thence direct 36°06'58"N/117°03'47"W thence direct 36°05'54"N/117°04'33"W thence direct 36°05'28"N/117°03'54"W thence direct 36°01'42"N/117°02'34"W thence direct 35°58'53"N/117°04'31"W thence direct 35°58'37"N/117°05'17"W thence direct 35°57'13"N/117°06'45"W thence direct 35°55'23"N/117°06'35"W thence direct 35°54'11"N/117°05'24"W thence direct 35°53'10"N/117°01'39"W thence direct 35°52'54"N/116°55'21"W thence direct 35°47'44"N/116°55'22"W thence direct 35°47'44"N/116°36'05"W thence direct 35°39'03"N/116°36'01"W thence direct 35°39'03"N/116°26'06"W</p>	
<p>Boundary of Death Valley National Park (Monument Boundaries) within <b>Shoshone</b> R-2508 Handbook</p>	<p>Beginning at 35°39'03"N/116°26'06"W thence direct 35°39'03"N/116°21'48"W thence direct 35°48'14"N/116°21'49"W thence direct 35°48'11"N/116°29'41"W thence direct 35°52'17"N/116°29'43"W thence direct 35°58'22"N/116°26'22"W thence direct 35°58'23"N/116°35'47"W thence direct 36°10'08"N/116°35'47"W thence direct 36°10'11"N/116°38'58"W thence direct 36°17'57"N/116°39'01"W thence direct 36°17'58"N/116°40'33"W thence direct 36°18'30"N/116°41'05"W thence direct 36°24'54"N/116°41'04"W thence direct 36°24'54"N/116°40'51"W</p>	
<p>Death</p>	<p>36-58-00</p>	<p>117-21-00</p>
<p>Stove Pipe</p>	<p>36-36-23</p>	<p>117-08-47</p>
<p><b>BISHOP</b></p>		
<p>MOA JO 7400.10</p>	<p>Beginning at lat. 37°12'00"N., long. 118°26'03"W to lat. 37°12'00"N., long. 118°00'03"W to lat. 37°09'00"N., long. 118°00'03"W to lat. 37°02'00"N., long. 118°20'03"W to the point of beginning.</p>	
<p><b>PORTERVILLE</b></p>		



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MOA JO 7400.10	Beginning at lat. 36°08'00"N., long. 119°00'03"W to lat. 36°08'00"N., long. 118°35'03"W to lat. 35°40'00"N., long. 118°35'03"W to lat. 35°40'00"N., long. 118°51'03"W, to the point of beginning.
ATCAA CCB/JCF/ZLA/ZOA LOA	Beginning at 36 08 00 North 119 00 03 West thence direct 36 08 00 North 118 35 03 West thence direct 35 40 00 North 118 35 03 West thence direct 35 40 00 North 118 51 03 West, thence direct to point of beginning.
<b>BAKERSFIELD</b>	
MOA JO 7400.10	Beginning at lat. 35°40'00"N., long. 118°51'03"W to lat. 35°40'00"N., long. 118°35'03"W to lat. 35°15'00"N., long. 118°35'03"W to lat. 34°56'00"N., long. 118°21'03"W to lat. 35°14'00"N., long. 118°42'03"W, to the point of beginning.
ATCAA CCB/JCF/ZLA/ZOA LOA	Beginning at 35 40 00 North 118 51 03 West thence direct 35 40 00 North 118 35 03 West thence direct 35 15 00 North 118 35 03 West thence direct 34 56 00 North 118 21 03 West thence direct 35 14 00 North 118 42 03 West, thence direct to point of beginning.
<b>BUCKHORN</b>	
MOA JO 7400.10	Beginning at lat. 34°49'40"N., long. 118°05'48"W thence along southern boundary of R-2515 to lat. 34°51'17"N., long. 117°26'03"W to lat. 34°49'30"N., long. 117°26'03"W to lat. 34°46'30"N., long. 117°35'03"W to lat. 34°46'00"N., long. 118°00'03"W to lat. 34°48'00"N., long. 118°05'48"W, to the point of beginning.
ATCAA CCB/JCF/ZLA/ZOA LOA	Beginning at 34 49 40 North 118 05 48 West thence along the southern boundary of R-2515 to 34 5117 North 117 26 03 West thence direct 34 49 30 North 117 26 03 West thence direct 34 46 30 North 117 35 03 West thence direct 34 46 00 North 118 00 03 West thence direct 34 48 00 North 118 05 48 West, thence direct to point of beginning.
<b>BARSTOW</b>	
MOA JO 7400.10	Beginning at lat. 35°07'00"N., long. 116°34'03"W to lat. 35°01'20"N., long. 116°41'03"W to lat. 34°56'20"N., long. 117°09'03"W thence along the eastern border of R-2515 and the southern boundary of R-2502E to the point of beginning.
East ATCAA CCB/JCF/ZLA/ZOA LOA	Beginning at 35 07 00 North 116 47 48 West thence direct 35 07 00 North 116 34 03 West thence direct 35 01 20 North 116 41 03 West thence direct 34 58 19 North 116 58 02 West thence direct to point of beginning.
West ATCAA	Beginning at 35 06 30 North 116 58 43 West

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CCB/JCF/ZLA/ZOA LOA	thence direct 35 08 50 North 116 48 43 West thence direct 35 07 00 North 116 47 48 West thence direct 34 58 19 North 116 58 02 West thence direct 34 56 20 North 117 09 03 West thence direct to point of beginning.	
<b>DEEP SPRINGS</b>		
ATCAA CCB/JCF/ZLA/ZOA LOA	Beginning at 37 12 00 North 118 00 03 West thence direct 37 30 00 North 118 00 03 West thence direct 37 30 00 North 117 30 03 West thence direct 37 12 00 North 117 20 03 West thence direct to point of beginning.	
<b>R-2502 N/E</b>		
East JO 7400.10	Beginning at lat. 35°28'35"N., long. 116°18'48"W to lat. 35°18'45"N., long. 116°18'48"W to lat. 35°07'00"N., long. 116°34'03"W to lat. 35°07'00"N., long. 116°47'48"W to lat. 35°08'50"N., long. 116°48'43"W to lat. 35°10'25"N., long. 116°42'18"W, to the point of beginning.	
North JO 7400.10	Beginning at lat. 35°37'45"N., long. 116°29'43"W to lat. 35°34'30"N., long. 116°29'43"W to lat. 35°34'30"N., long. 116°23'33"W to lat. 35°28'35"N., long. 116°18'48"W to lat. 35°10'25"N., long. 116°42'18"W to lat. 35°08'50"N., long. 116°48'43"W to lat. 35°10'00"N., long. 116°49'03"W to lat. 35°19'00"N., long. 116°49'03"W to lat. 35°19'00"N., long. 116°55'23"W to lat. 35°37'45"N., long. 116°55'23"W, to the point of beginning.	
<b>R-2505</b>		
JO 7400.10	R-2505 China Lake, CA Boundaries. Beginning at lat. 36°14'00"N., long. 117°53'03"W to lat. 36°14'00"N., long. 117°25'03"W to lat. 35°40'30"N., long. 117°25'03"W to lat. 35°37'30"N., long. 117°35'33"W to lat. 35°37'30"N., long. 117°47'33"W to lat. 35°54'00"N., long. 117°53'03"W, to the point of beginning.	
Coso Sam	36-12-24.37	117-21-00
Airport Dry Lake	35-54-06.66	117-42-57.01
<b>R-2506</b>		
JO 7400.10	Beginning at lat. 35°37'30"N., long. 117°41'23"W to lat. 35°28'00"N., long. 117°40'53"W to lat. 35°28'00"N., long. 117°47'03"W to lat. 35°37'30"N., long. 117°47'33"W to the point of beginning.	
<b>R-2508</b>		
JO 7400.10	Beginning at lat. 37°12'00"N., long. 117°20'03"W to lat. 35°34'00"N., long. 116°23'03"W to lat. 35°28'35"N., long. 116°18'48"W to lat. 35°18'45"N., long. 116°18'48"W	

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	<p>to lat. 35°07'00"N., long. 116°34'03"W  to lat. 35°07'00"N., long. 116°47'48"W  to lat. 35°08'50"N., long. 116°48'43"W  to lat. 35°06'30"N., long. 116°58'43"W  to lat. 34°53'30"N., long. 117°11'53"W  to lat. 34°50'20"N., long. 117°32'03"W  to lat. 34°48'30"N., long. 117°32'03"W  to lat. 34°48'00"N., long. 117°35'03"W  to lat. 34°48'00"N., long. 118°01'03"W  to lat. 34°49'40"N., long. 118°05'48"W  to lat. 34°51'30"N., long. 118°05'48"W  to lat. 34°56'00"N., long. 118°21'03"W  to lat. 35°15'00"N., long. 118°35'03"W  to lat. 37°12'00"N., long. 118°35'03"W, to the point of beginning.</p>
<b>R-2515</b>	
JO 7400.10	<p>R-2515 Muroc Lake, CA Boundaries.  Beginning at lat. 35°19'00"N., long. 116°49'03"W  to lat. 35°10'00"N., long. 116°49'03"W  to lat. 35°08'50"N., long. 116°48'43"W  to lat. 35°06'30"N., long. 116°58'43"W  to lat. 34°53'30"N., long. 117°11'53"W  to lat. 34°50'20"N., long. 117°32'03"W  to lat. 34°48'30"N., long. 117°32'03"W  to lat. 34°48'00"N., long. 117°35'03"W  to lat. 34°48'00"N., long. 118°01'03"W  to lat. 34°49'40"N., long. 118°05'48"W  to lat. 35°01'00"N., long. 118°05'48"W  to lat. 35°27'40"N., long. 117°26'03"W  to lat. 35°15'56"N., long. 117°26'03"W  to lat. 35°15'56"N., long. 116°55'23"W  to lat. 35°19'00"N., long. 116°55'23"W, to the point of beginning.</p>
<b>R-2524</b>	
JO 7400.10	<p>R-2524 Trona, CA Boundaries.  Beginning at lat. 35°47'46"N., long. 116°55'23"W  to lat. 35°15'56"N., long. 116°55'23"W  to lat. 35°15'56"N., long. 117°26'03"W  to lat. 35°36'00"N., long. 117°26'03"W  to lat. 35°36'00"N., long. 117°16'55"W  to lat. 35°47'46"N., long. 117°16'55"W, to the point of beginning.</p>