



## Public Information Brief December 2016

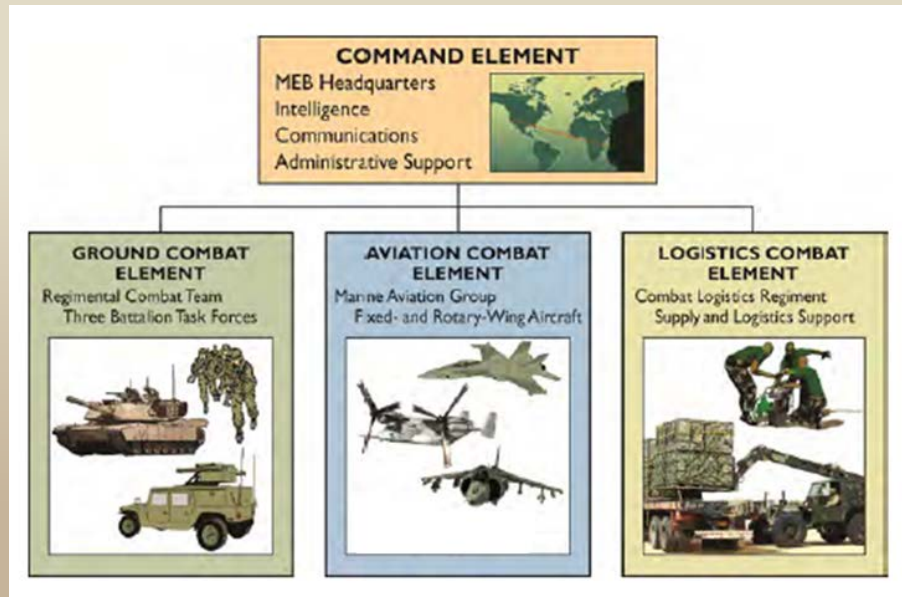
**Proposal for *Temporary* Special Use  
Airspace Establishment and  
Modification  
in Support of  
Large Scale Exercise 2017  
Sustained, Combined-Arms,  
Live-Fire and Maneuver Training**

Marine Air Ground Task Force Training  
Command/  
Marine Corps Air Ground Combat Center  
(MAGTFTC/MCAGCC)  
Twentynine Palms, CA





## Marines Must Train As We Fight



- Special Use Airspace (SUA) is needed to meet MEB sustained, combined-arms, live-fire and maneuver training requirements for, and to protect the public from, the use of:
  - Artillery, mortars, tanks and other ground-based systems;
  - Missiles, bombs and other airborne weapons systems;
  - Maneuver space for aircraft involved in the exercise.

## Operational Requirement

- Marines deploy as a Marine Air Ground Task Force (MAGTF).
- Marines must train as a Marine Expeditionary Brigade (MEB) MAGTF to deploy around the globe.
- A MEB, about 15,000 Marines, includes:
  - Command Element;
  - Ground Combat Element built around a Regimental Combat Team (three battalions);
  - Aviation Combat Element built around a Marine Aviation Group;
  - Logistics Combat Element built around a Combat Logistics Regiment.
- MEB training requires a sustained (48-72 hours), combined-arms, live-fire and maneuver training exercise.
- Congress approved expanding MCAGCC to add sufficient land to support MEB training.
- The Marine Corps submitted SUA proposals to the Federal Aviation administration to secure establishment and modification of Permanent SUA to support MEB training.
- **Pending finalization of its Permanent SUA proposal, the Marine Corps seeks *Temporary* SUA to support its large-scale training exercise in 2017.**



## Types of Airspace Used or Potentially Used at MCAGCC

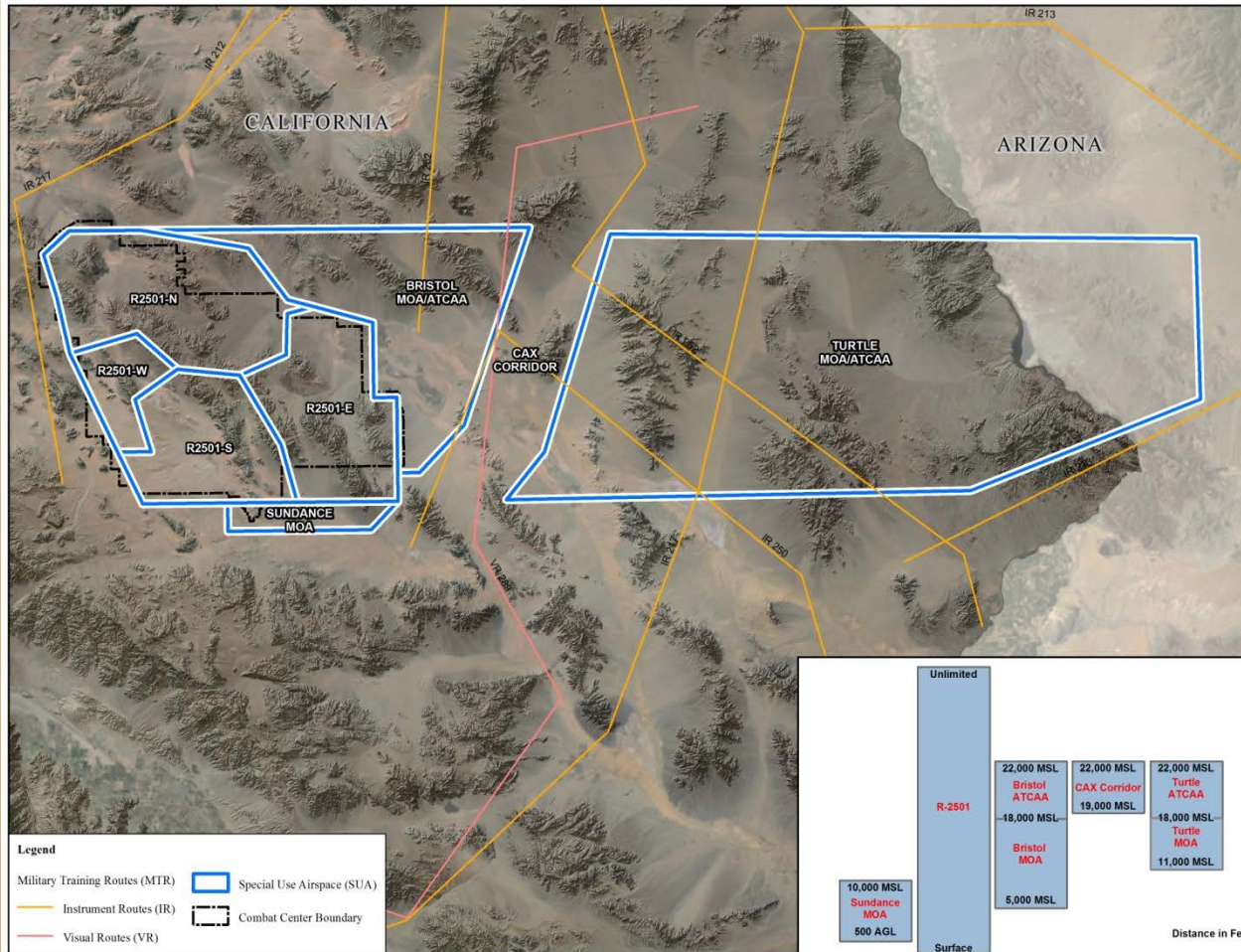
- ***Restricted Area (RA)***: Non-military aircraft are prohibited from entering during military training activities that involve live fire; MCAGCC releases RA for use by all aircraft in the National Airspace System when not needed for military training.
- ***Military Operations Area (MOA)***: A military operations area is airspace designated outside of Class A airspace (18,000 – 60,000 feet) to separate or segregate certain nonhazardous military activities from Instrument Flight Rule (IFR) traffic and to identify for Visual Flight Rule (VFR) traffic where these activities are conducted.
- ***Air Traffic Control Assigned Airspace (ATCAA)***: Similar to a MOA (and usually overlying a MOA) within Class A airspace, non-military aircraft may fly in ATCAA during military training so long as air traffic controllers can maintain IFR separation from military aircraft; only non-hazardous military activities may be undertaken in ATCAA.
- ***Controlled Firing Area (CFA)***: This is airspace designated to contain activities that if not conducted in a controlled environment would be hazardous to nonparticipating aircraft. CFAs provide a means to accommodate, without impact to aviation, certain hazardous activities that can be immediately suspended if a nonparticipating aircraft approaches the area. Such areas may be established, for example, to support training during the period of the processing of an application for RA.



# Proposed 29 Palms Training Land Acquisition/Airspace Establishment Project



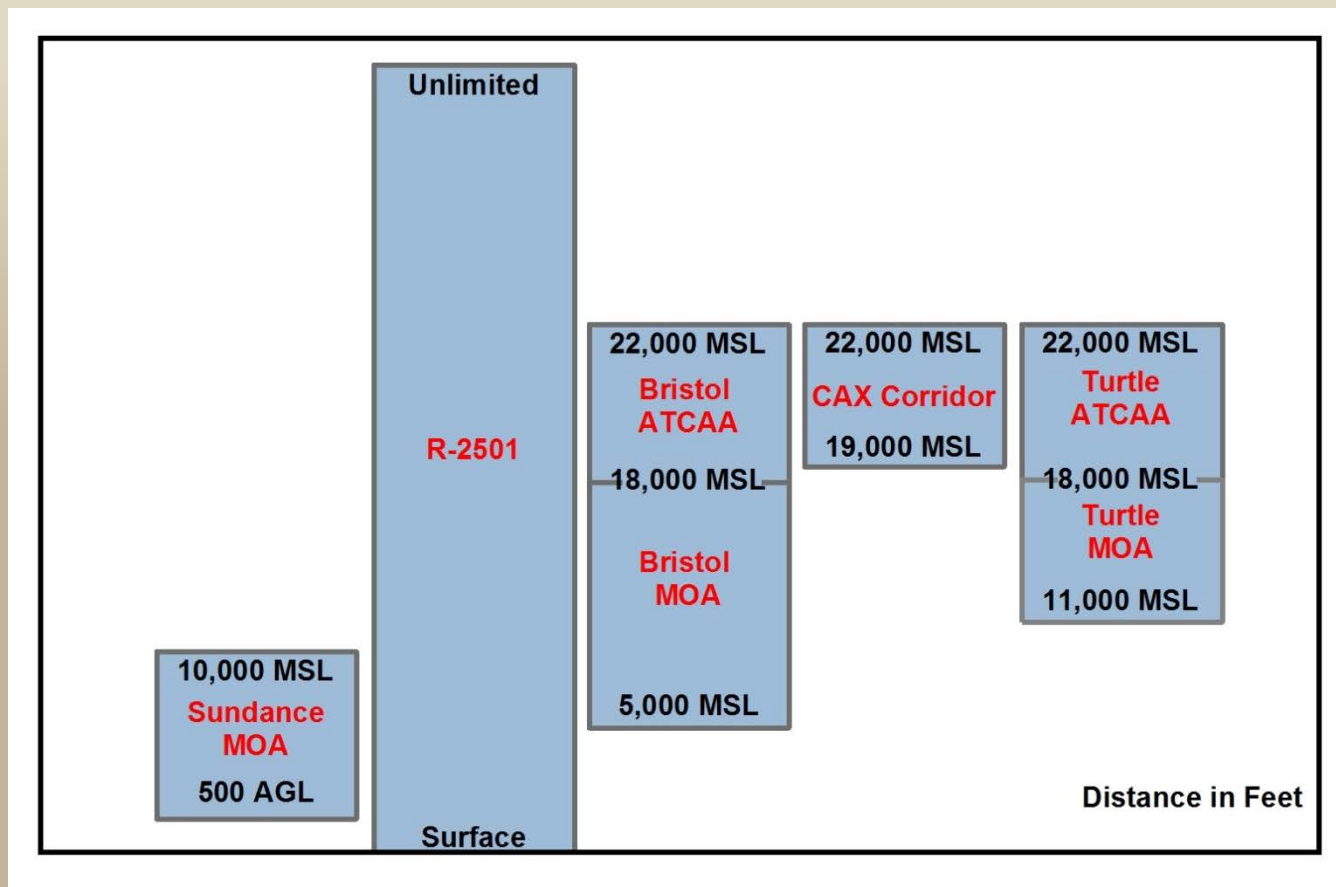
## Special Use and Other Airspace Now in the Vicinity of MCAGCC





## Special Use and Other Airspace Now in Vicinity of MCAGCC

### Surface and Ceiling of Current Airspace Blocks





### *Temporary* SUA Establishment and Modification Highlights

- The proposal for *Temporary* SUA would:
- Add a *Temporary* Restricted Area (RA) contiguous to the northwestern boundary of R-2501 and directly over newly acquired training land.
  - *Temporary* R-XXXX East would go from surface (SFC) to 40,000 feet above sea level, or FL400.
  - *Temporary* R-XXXX West would go from SFC to 8,000 feet above mean sea level (MSL).
  - *Temporary* R-XXXX North would go from SFC to 16,000 feet MSL.
- Add three new *Temporary* Military Operating Areas (MOAs)/Air Traffic Control Assigned Airspace (ATCAAs)
- Would temporarily modify the vertical limits of the current Sundance, Bristol and Turtle MOAs/ATCAAs for LSE-17.



### Proposals for *Temporary* Airspace Establishment and Modification for LSE-17

The slides following include graphical depictions and details of longitude, latitudes and times of use for each proposed element of *Temporary* SUA to support LSE-17, to include for:

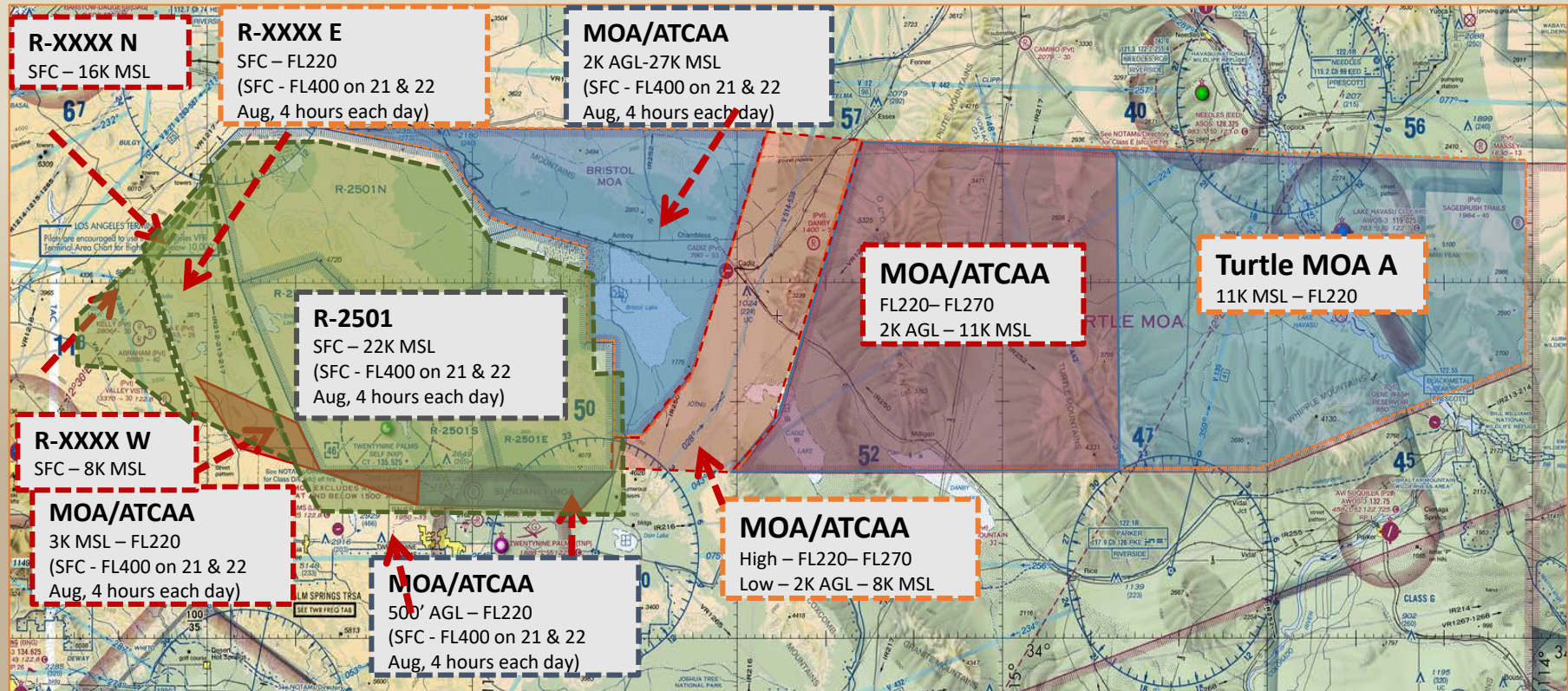
- Proposed *Temporary* Restricted Area
- Proposed *Temporary* Johnson Valley MOA/ATCAA
- Proposed *Temporary* New Sundance MOA/ATCAA
- Proposed *Temporary* New Bristol MOA/ATCAA
- Proposed *Temporary* CAX High/Low MOA/ATCAA
- Proposed *Temporary* New Turtle MOA/ATCAA



# Proposed 29 Palms Training Land Acquisition/Airspace Establishment Project



## Overview of Proposed *Temporary* SUA for LSE-17



The above graphic depicts the proposed *Temporary* SUA dimensions in support of LSE-17. The green represents RA with the other colors representing MOA/ATCAA, the blue being already established MOA/ATCAA and the red being new *Temporary* MOA/ATCAA.

In response to public comments, the proposal increased the floors of Bristol MOA, Turtle MOA and CAX MOA from 1,500 feet AGL to 2,000 feet AGL.

**Note:** R-2501 remains permanently established at surface to unlimited, but for the purposes of LSE-17, only airspace up to FL 400 is planned for activation.



Altitude . Surface to 16K' MSL



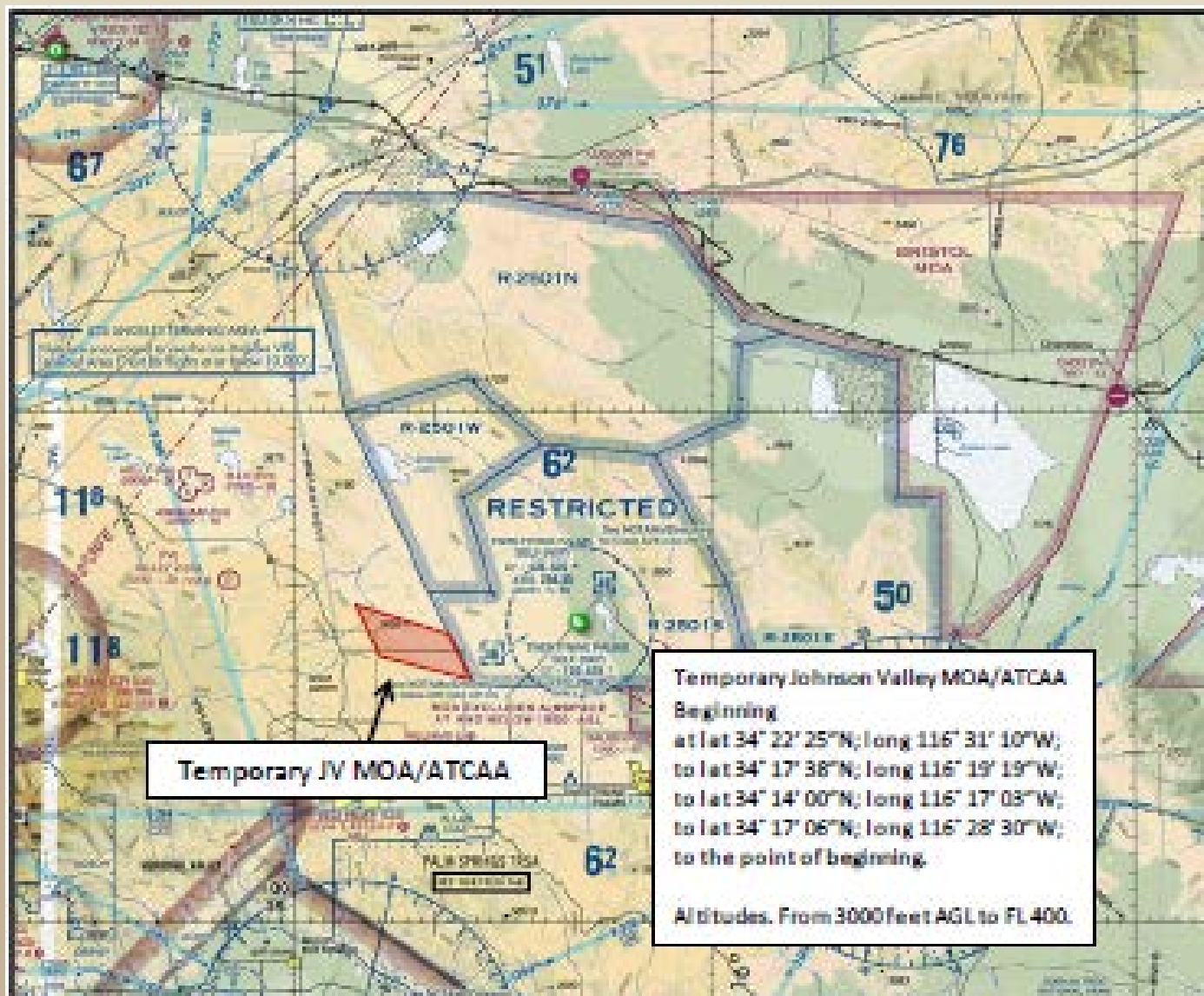
### Proposed Periods of Use for *Temporary* Restricted Airspace

- The *Temporary* R-XXXX E/W/N would be activated 7 – 26 AUG 2017 by NOTAM when training includes employment of direct fire weapons such as rifles, machine guns, lasers, mortars, artillery, demolitions, unmanned aerial systems (UAS) and/or close air support training conducted by rotary-wing aircraft and fixed-wing aircraft.
- *Temporary* R-XXXX W would be activated up to 8,000 feet MSL for up to 20 days (7 – 26 AUG 2017).
- *Temporary* R-XXXX N would be activated from surface up to 16,000 feet MSL for up to 20 days (7 – 26 AUG 2017).
- *Temporary* R-XXXX E would be activated from:
  - surface up to 16,000 feet MSL for up to 12 days (7 – 18 AUG 2017), as well as
  - surface up to FL220 for up to 16 hours per day for 8 days (19 – 26 AUG 2017); and
  - surface up to FL400 for up to four hours on each of two days (21 and 22 AUG 2017).

# Proposed 29 Palms Training Land Acquisition/Airspace Establishment Project



## Proposed *Temporary* Johnson Valley MOA/ATCAA





## Proposed Periods of Use for *Temporary* Johnson Valley MOA/ATCAA

- The *Temporary* Johnson Valley MOA/ATCAA would be activated by NOTAM in support of fixed-wing, rotary-wing and tilt-rotor aircraft training events from 7 - 26 AUG 2017.
- From 3,000 feet above ground level (AGL) to 16,000 feet MSL for up to 12 hours per day for up to 12 days.
- From 3,000 feet AGL to FL220 for up to 16 hours per day for 8 days.
- On two days (21 and 22 AUG 2017) for four hours each day, would be activated up to FL400.

DATE	TIME	ALT SUA (JV MOA)
07 AUG 17	0600-1800	3K' AGL-16K' MSL
08 AUG 17	0600-1800	3K' AGL-16K' MSL
09 AUG 17	0600-1800	3K' AGL-16K' MSL
10 AUG 17	0600-1800	3K' AGL-16K' MSL
11 AUG 17	0600-1800	3K' AGL-16K' MSL
12 AUG 17	0600-1800	3K' AGL-16K' MSL
13 AUG 17	0600-1800	3K' AGL-16K' MSL
14 AUG 17	0600-1800	3K' AGL-16K' MSL
15 AUG 17	0600-1800	3K' AGL-16K' MSL
16 AUG 17	0600-1800	3K' AGL-16K' MSL
17 AUG 17	0600-1800	3K' AGL-16K' MSL
18 AUG 17	0600-1800	3K' AGL-16K' MSL

DATE	TIME	ALT SUA (JV MOA/ATCAA)
19 AUG 17	0600-2200	3K' AGL-FL220
20 AUG 17	0600-2200	3K' AGL-FL220
21 Aug 17	0600-2200	3K' AGL-FL220 (FL400)*
22 Aug 17	0600-2200	3K' AGL-FL220 (FL400)*
23 AUG 17	0600-2200	3K' AGL-FL220
24 AUG 17	0600-2200	3K' AGL-FL220
25 AUG 17	0600-2200	3K' AGL-FL220
26 AUG 17	1200-2359	3K' AGL-FL220

Figure 2

\* Airspace activated to FL400 for up to four hours on this day

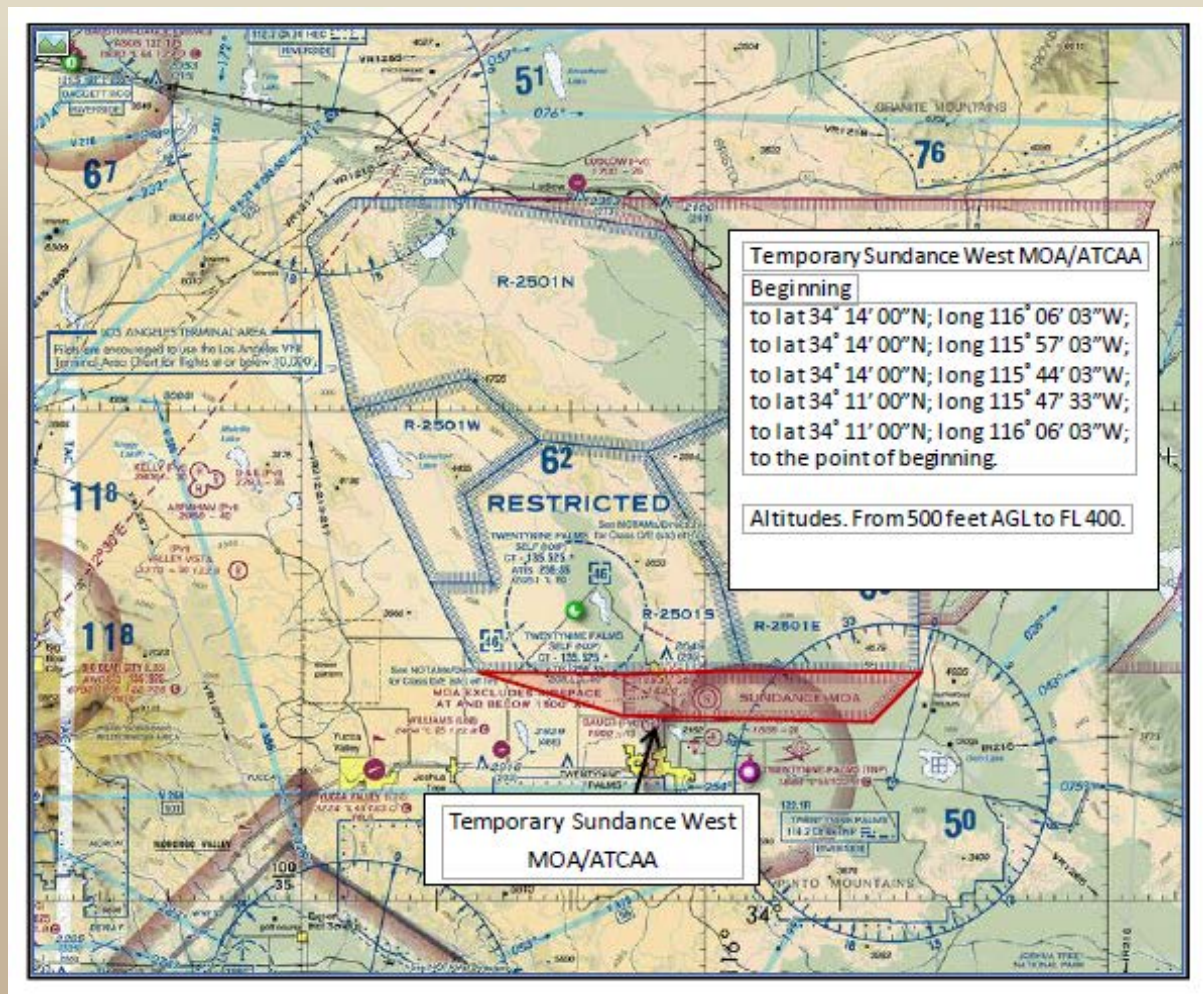


# Proposed 29 Palms Training Land Acquisition/Airspace Establishment Project



## Proposed *Temporary* New Sundance MOA/ATCAA West

Modified laterally and vertically from current configuration.





## Proposed Periods of Use for *Temporary* Sundance MOA/ATCAA

- The *Temporary* Sundance West MOA/ATCAA would be activated by NOTAM in support of fixed wing, rotary wing and tilt-rotor aircraft training events from 7 - 26 AUG 2017.
- Would include day and night operations.
- From 500 feet AGL to FL220 for up to 12 hours per day for up to 13 days, and up to 16 hours per day for 7 days.
- On two days (21 and 22 AUG 2017) for four hours each day, would be activated up to FL400.

DATE	TIME	ALT SUA (Sundance West MOA)
07 AUG 17	0600-1800	500' AGL-FL220
08 AUG 17	0600-1800	500' AGL-FL220
09 AUG 17	0600-1800	500' AGL-FL220
10 AUG 17	0600-1800	500' AGL-FL220
11 AUG 17	0600-1800	500' AGL-FL220
12 AUG 17	0600-1800	500' AGL-FL220
13 AUG 17	0600-1800	500' AGL-FL220
14 AUG 17	0600-1800	500' AGL-FL220
15 AUG 17	0600-1800	500' AGL-FL220

16 AUG 17	0600-1800	500' AGL-FL220
17 AUG 17	0600-1800	500' AGL-FL220
18 AUG 17	0600-1800	500' AGL-FL220
19 AUG 17	0600-2200	500' AGL-FL220
20 AUG 17	0600-2200	500' AGL-FL220
21 AUG 17	0600-2200	500' AGL-FL220 (FL400)*
22 AUG 17	0600-2200	500' AGL-FL220 (FL400)*
23 AUG 17	0600-2200	500' AGL-FL220
24 AUG 17	0600-2200	500' AGL-FL220
25 AUG 17	0600-2200	500' AGL-FL220
26 AUG 17	1200-2359	500' AGL-FL220

Figure 1

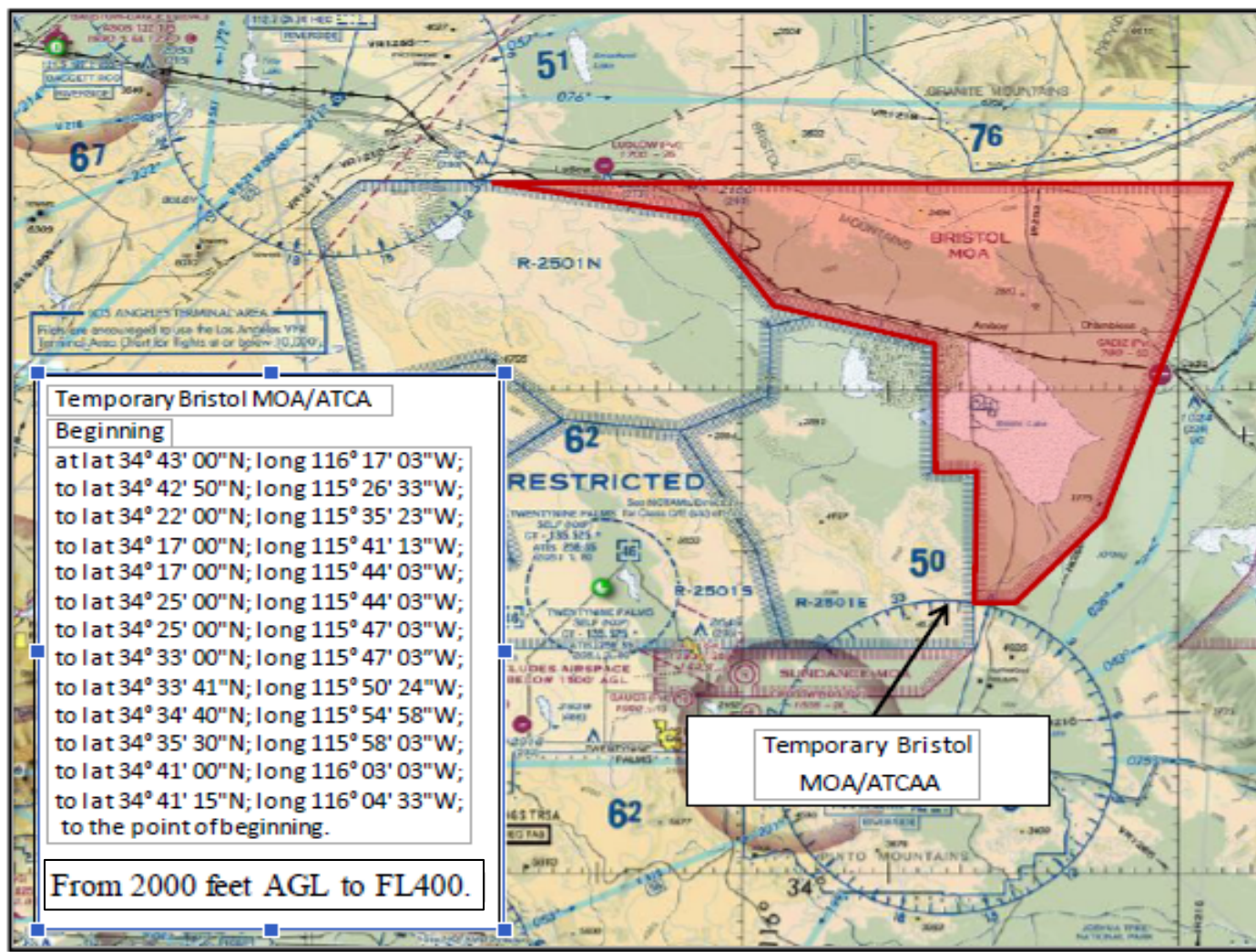
\* Airspace activated to FL400 for up to four hours on this day



# Proposed 29 Palms Training Land Acquisition/Airspace Establishment Project



## Proposed *Temporary* New Bristol MOA/ATCAA Modified vertically from current Bristol MOA/ATCAA





## Proposed Periods of Use for *Temporary* New Bristol MOA/ATCAA

- The *Temporary* New Bristol MOA/ATCAA would be activated by NOTAM in support of fixed-wing, rotary-wing and tilt-rotor aircraft training events from 7 - 26 AUG 2017.
- Would include day and night operations.
- From 5,000 feet MSL to FL220 for up to 12 hours per day for up to 12 days.
- From 2,000 feet AGL to FL270 for up to 16 hours per day for 8 days.
- On two days (21 and 22 AUG 2017) for four hours each day, would be activated up to FL400.

DATE	TIME	ALT SUA (Bristol MOA)
07 AUG 17	0600-1800	5K' MSL-FL220
08 AUG 17	0600-1800	5K' MSL-FL220
09 AUG 17	0600-1800	5K' MSL-FL220
10 AUG 17	0600-1800	5K' MSL-FL220
11 AUG 17	0600-1800	5K' MSL-FL220
12 AUG 17	0600-1800	5K' MSL-FL220
13 AUG 17	0600-1800	5K' MSL-FL220
14 AUG 17	0600-1800	5K' MSL-FL220
15 AUG 17	0600-1800	5K' MSL-FL220
16 AUG 17	0600-1800	5K' MSL-FL220
17 AUG 17	0600-1800	5K' MSL-FL220
18 AUG 17	0600-1800	5K' MSL-FL220

Figure 1

DATE	TIME	ALT SUA (Bristol MOA/ATCAA)
19 AUG 17	0600-2200	2000' AGL-FL270
20 AUG 17	0600-2200	2000' AGL-FL270
21 AUG 17	0600-2200	2000' AGL-FL270 (FL400)*
22 AUG 17	0600-2200	2000' AGL-FL270 (FL400)*
23 AUG 17	0600-2200	2000' AGL-FL270
24 AUG 17	0600-2200	2000' AGL-FL270
25 AUG 17	0600-2200	2000' AGL-FL270
26 AUG 17	1200-2359	2000' AGL-FL270

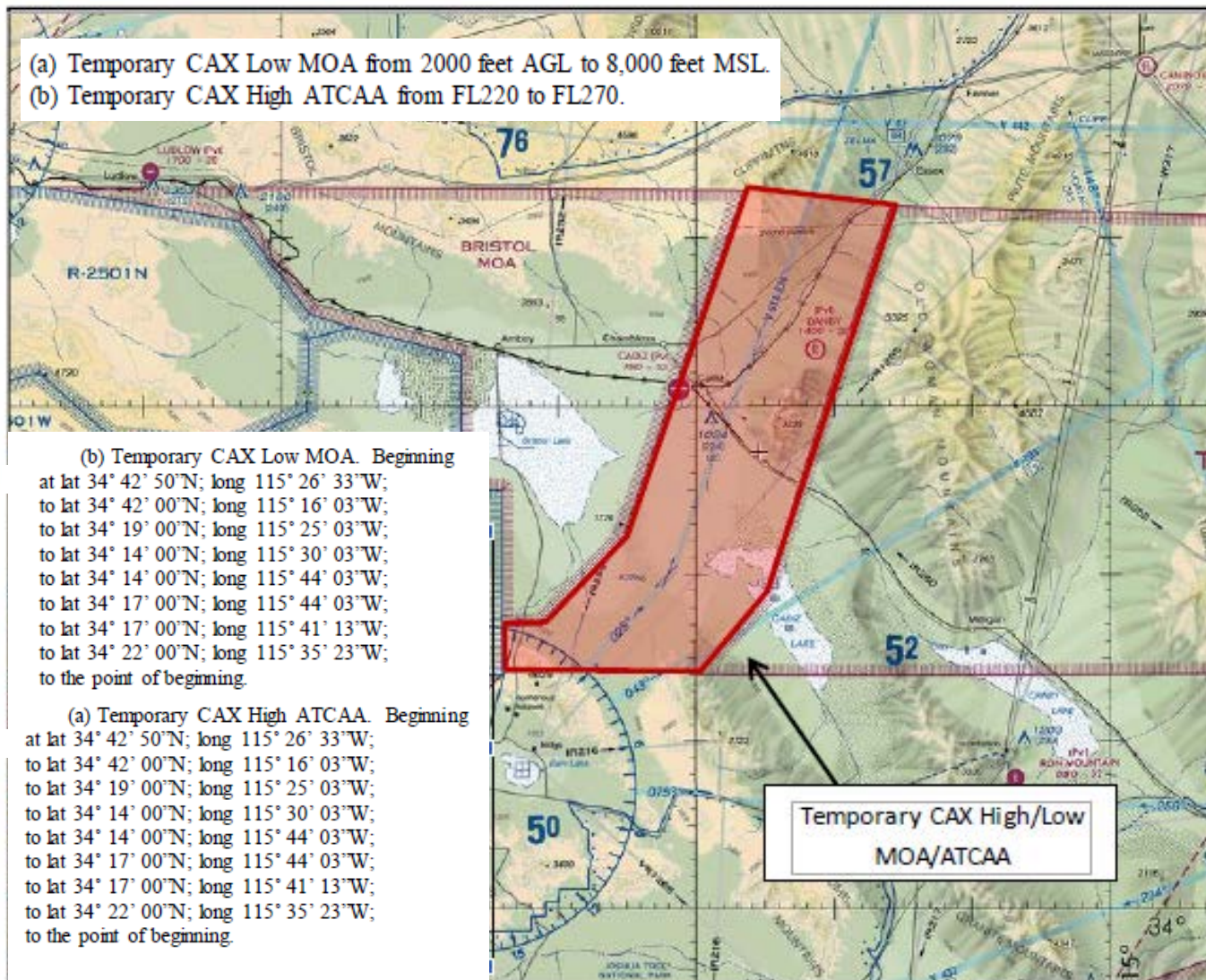
Figure 2

\* Airspace activated to FL400 for up to four hours on this day.



## Proposed Temporary CAX High/Low MOA/ATCAA

- (a) Temporary CAX Low MOA from 2000 feet AGL to 8,000 feet MSL.  
(b) Temporary CAX High ATCAA from FL220 to FL270.





## Proposed Periods of Use for *Temporary* CAX High/Low MOA/ATCAA

- The *Temporary* CAX High/Low MOA/ATCAA would be activated by NOTAM in support of fixed-wing, rotary-wing and tilt-rotor aircraft training events from 19 - 26 August 2017.
- The *Temporary* CAX High ATCAA will be utilized in support of fixed-wing aircraft training events from FL220 to FL270 for up to 16 hours per day for 8 days. (See, Figure 1)
- The *Temporary* CAX Low MOA will be utilized in support of rotary/fixed wing aircraft training events from 2,000 feet AGL up to 8,000 feet MSL for up to 16 hours per day for 8 days. (See, Figure 2)

DATE	TIME	ALT SUA (CAX ATCAA)
19 AUG 17	0600-2200	FL220- FL270
20 AUG 17	0600-2200	FL220-FL270
21 AUG 17	0600-2200	FL220-FL270
22 AUG 17	0600-2200	FL220-FL270
23 AUG 17	0600-2200	FL220-FL270
24 AUG 17	0600-2200	FL220-FL270
25 AUG 17	0600-2200	FL220-FL270
26 AUG 17	1200-2359	FL220-FL270

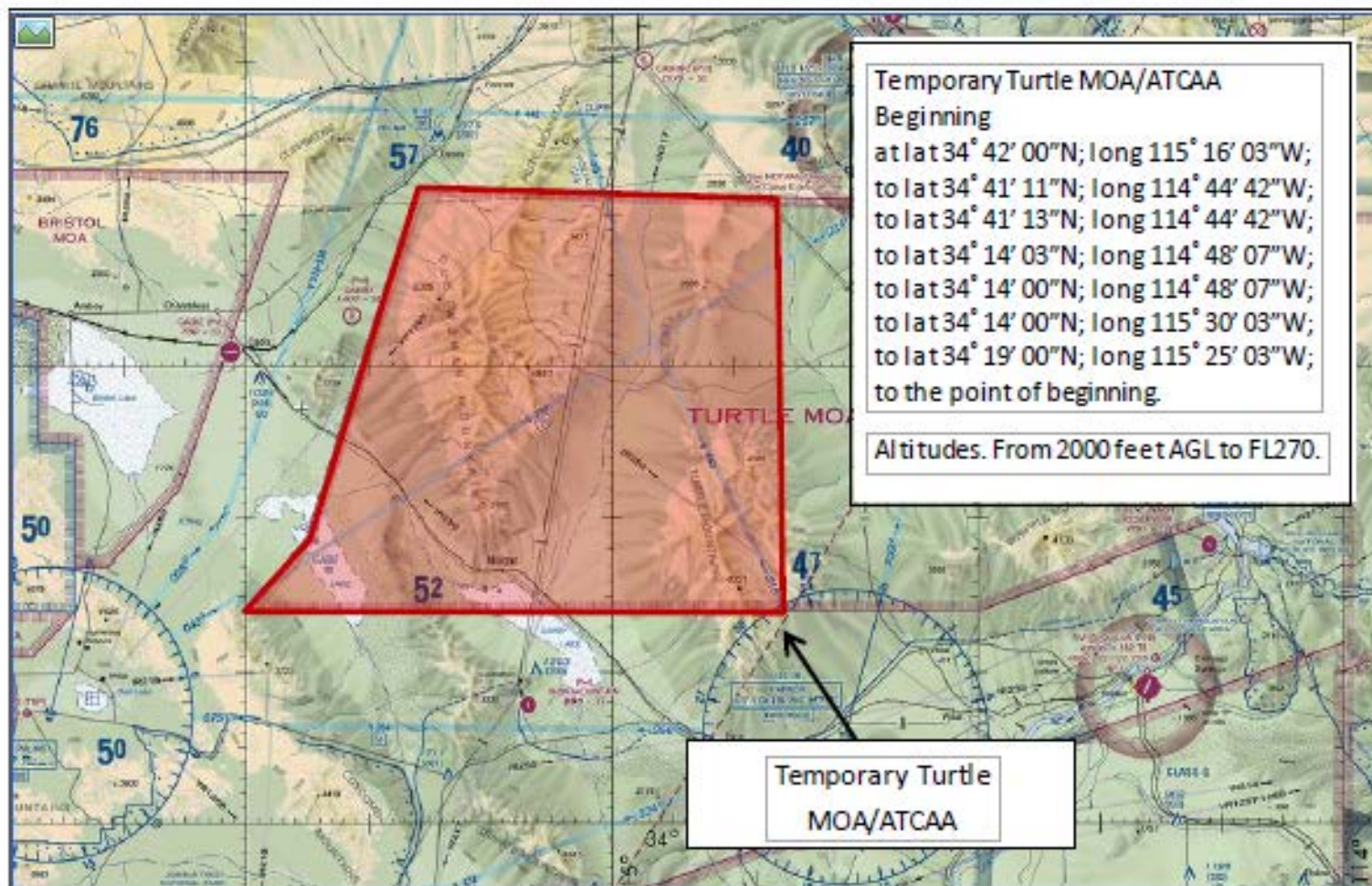
Figure 1

DATE	TIME	ALT SUA (CAX MOA)
19 AUG 17	0600-2200	2000' AGL -8K' MSL
20 AUG 17	0600-2200	2000' AGL -8K' MSL
21 AUG 17	0600-2200	2000' AGL -8K' MSL
22 AUG 17	0600-2200	2000' AGL -8K' MSL
23 AUG 17	0600-2200	2000' AGL -8K' MSL
24 AUG 17	0600-2200	2000' AGL -8K' MSL
25 AUG 17	0600-2200	2000' AGL -8K' MSL
26 AUG 17	1200-2359	2000' AGL -8K' MSL

Figure 2



## Proposed *Temporary* New Turtle High/Low MOA/ATCAA Modified Vertically from current Turtle MOA/ATCAA





## Proposed Periods of Use for *Temporary* New Turtle High/Low MOA/ATCAA

- The *Temporary* New Turtle High/Low MOA/ATCAAs would be activated by NOTAM in support of fixed-wing, tilt-rotor aircraft and rotary-wing training events from 19-26 August 2017. The proposed Temporary Turtle High/Low MOA/ATCAA use will include day and night operations.
- The *Temporary* New Turtle High ATCAA would be activated from FL220 up to FL270 for up to 16 hours per day for 8 days. (See, Figure 1)
- The *Temporary* New Turtle Low MOA would be activated from 2,000 feet AGL up to but not including 11,000 feet MSL for up to 16 hours per day for 8 days. (See, Figure 2)

DATE	TIME	ALT SUA (Turtle High ATCAA)
19 AUG 17	0600-2200	FL220-FL270
20 AUG 17	0600-2200	FL220-FL270
21 AUG 17	0600-2200	FL220-FL270
22 AUG 17	0600-2200	FL220-FL270
23 AUG 17	0600-2200	FL220-FL270
24 AUG 17	0600-2200	FL220-FL270
25 AUG 17	0600-2200	FL220-FL270
26 AUG 17	1200-2359	FL220-FL270

Figure 1

DATE	TIME	ALT SUA (Turtle Low MOA)
19 AUG 17	0600-2200	2000' AGL-11,000' MSL
20 AUG 17	0600-2200	2000' AGL-11,000' MSL
21 AUG 17	0600-2200	2000' AGL-11,000' MSL
22 AUG 17	0600-2200	2000' AGL-11,000' MSL
23 AUG 17	0600-2200	2000' AGL-11,000' MSL
24 AUG 17	0600-2200	2000' AGL-11,000' MSL
25 AUG 17	0600-2200	2000' AGL-11,000' MSL
26 AUG 17	1200-2359	2000' AGL-11,000' MSL

Figure 2





## Key Airspace Stakeholders

- Federal Aviation Administration (FAA)
- California Department of Transportation, Division of Aeronautics
- US Fish and Wildlife Service
- National Park Service
- Bureau of Land Management
- Pilots and Pilot Organizations
- e.g., Aircraft Owners and Pilots Assoc., California Pilots Assoc.
- Commercial Airlines
- Airports
- Environmental Groups
- Aviation Non-Governmental Organizations (e.g., Air Transport Assoc., California Aviation Assoc., National Air Transportation Assoc.)

## Project to Date

- Project formally initiated with public land segregation notice and initiation of EIS Scoping, September and October 2008; multiple public comment periods
- ROD published February 2013
- Congress and President enact land withdrawal and acquisition, December 2013
- Training in the expansion area commenced in 2016 without supporting airspace

## Project Path Forward

- Complete FAA airspace review and rule making processes for *Temporary* Special Use Airspace, 2017
- Undertake LSE-17 Training with *Temporary* Special Use Airspace, 2017
- Complete FAA airspace review and rule making processes for Permanent Special Use Airspace, 2017-2018 to support MEB training
- Commence MEB training with Permanent Special Use Airspace, 2018



## Next Steps in the Airspace Review Process

- The Marine Corps submitted the Temporary Special Use Airspace proposal for LSE-17 to FAA Western Service Area via the Naval Representative in October 2016
- FAA is commencing processes for rule making (for Restricted Airspace) and non-rule making (for MOA/ATCAA). Key FAA steps include:
  - Commences aeronautical and environmental review
  - Circulates non-rulemaking proposal for 45 day public comment period
  - Coordination between HQ and Western Service Area on review of environmental and aeronautical comments from stakeholders on rule making and non-rule making proposals
  - Publishes any notice of proposed rule making in the federal register with 45 days for public comment
- Once FAA finalizes its non-rule making determination, it will publish the determination in the National Flight Data Digest
- Once FAA finalizes its rule making determination, it will publish the determination in the Federal Register

# Proposed 29 Palms Training Land Acquisition/Airspace Establishment Project



## Conclusion

- The Marine Corps has studied reasonable Special Use Airspace (SUA) alternatives in the area near the Marine Corps Air Ground Combat Center, Twentynine Palms, CA as part of our effort to meet sustained, combined-arms, live-fire and maneuver MEB training requirements.
- The Marine Corps seeks only that airspace needed to meet our training requirements, and pledges to release it for use by all aircraft in the National Airspace System (NAS) when not needed for military training.
- Stakeholders will have opportunities to comment on the Marine Corps SUA proposals and proposed actions by the FAA. The Marine Corps will work through this process to support an FAA action that meets our training requirements while accommodating the needs of others who must utilize the NAS.
- We look forward to working with you in the years ahead as the Combat Center continues its important mission for the nation.



# Questions / Discussion



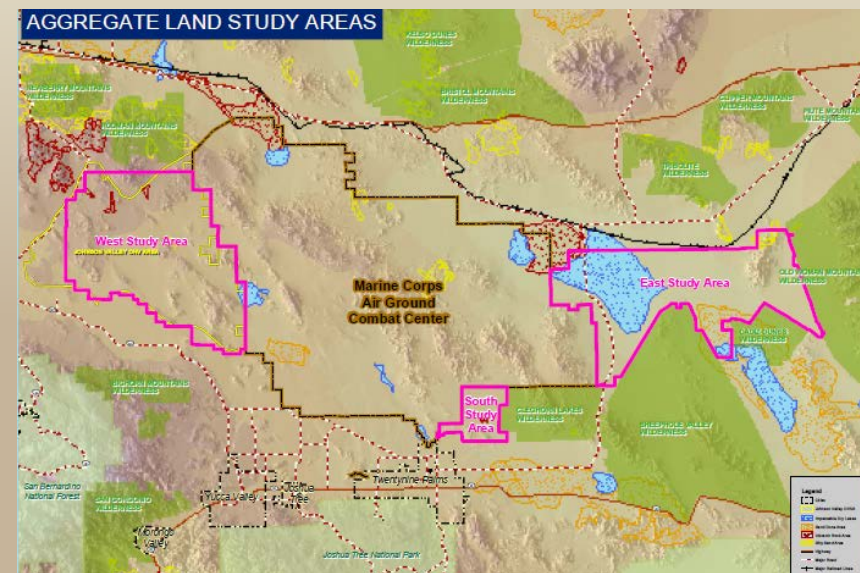


# Back-up Slides

## Project Inception

- Marine Corps Training and Education Command (TECOM) formulated MEB training requirement from lessons learned from combat.
- *Marine Corps Reference Publication 3-OC* and a *Land Use Requirements Study* showed need for more training range area.
- Center for Naval Analyses nationwide study of training options recommended MCAGCC, Twentynine Palms, CA.
- Marine Requirements Oversight Council (MROC) validated training requirement and approved study for land acquisition and airspace establishment or modification at MCAGCC.
- After significant public involvement, an Environmental Impact Statement (EIS) was completed and a Record of Decision (ROD) issued to support land acquisition at MCAGCC and the establishment/modification of Special Use Airspace to support MEB training.

Alternatives to the west, south and east of MCAGCC were studied in preparation of an EIS. Alternatives for establishment or modification of Special Use Airspace over the land study areas were also studied.



With Congress approving a final land acquisition demarcation, the establishment of airspace to support training represented the next phase of the project.



### A Range of Reasonable Alternatives Were Evaluated in the EIS

- Six land acquisition alternatives for meeting MEB training requirements were studied in the EIS.
- The ROD selected Alternative 6, which had been developed in response to public comments to conserve recreation areas in the region.
- Congress approved, with some modification, the land acquisition and public land withdrawal plan selected in the ROD.

### Supporting Airspace Alternatives Also Developed and Evaluated

- Alternatives to establish and modify Special Use Airspace were developed to support the training in any newly acquired lands.
  - One airspace alternative would have supported land acquisition Alternatives 1, 4, 5 and 6.
  - Separate airspace alternatives were developed to support land acquisition Alternatives 2 and 3.
- The Marine Corps has worked throughout the process to tailor its airspace proposal to respond to stakeholder comments throughout the EIS process.