













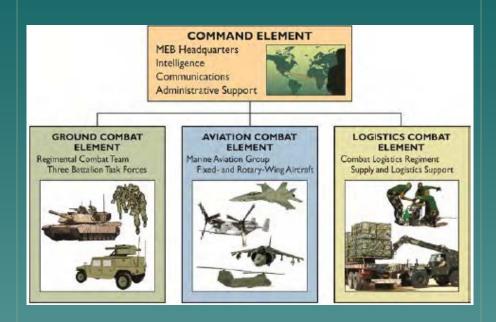
Public Information Brief November 2014

Proposal for Special Use Airspace
Establishment and Modification
in Support of
Marine Expeditionary Brigade
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 is needed to meet MEB sustained, combined-arms, live-fire and maneuver training requirements for use of:
 - Artillery, mortars, tanks and other groundbased systems;
 - Missiles, bombs and other airborne weapons systems.

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 FAA will now consider the Marine Corps' Special Use Airspace proposal.



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 was completed and a Record of Decision 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 Environmental Impact Statement (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 represents 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 Record of Decision (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.



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.

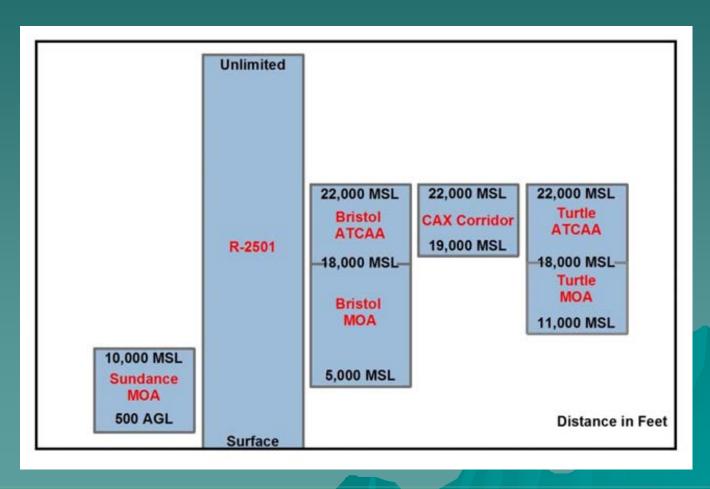


Special Use and Other Airspace Now in the Vicinity of MCAGCC





Special Use and Other Airspace now in vicinity of MCAGCC Surface and Ceiling of Current Airspace Blocks





29 Palms Proposed and Proposed New Special Use Airspace Details of Each on Slides that Follow

- Surface to FL400
- 40 days
 /year
 supporting
 two x 20-day
 Exercise
- Two x 3-day FINEXs, Two x 17-day Exercise Work Ups
- Proposals delivered to the FAA Regional HQ



- R-XXXX A/B/C/D
- R-XXXX A & D: SFC-FL 400
- R-XXXX B & C: SFC-8000ft
- Johnson Valley MOA/ATCAA: 3000ft – FL 400
- New Sundance MOA/ATCAA: 1500ft - FL 400
- New Bristol MOA/ATCAA:
 1500ft FL 400
- New CAX Corridor MOA/ATCAA:
 - CAX LOW 1500ft 8000ft
 - CAX HIGH FL180 -FL400
- New Turtle MOA/ATCAA
- New Turtle A MOA/ATCAA: 11,000ft FL 220
- New Turtle B MOA/ATCAA: FL 220 FL 400
- New Turtle C MOA/ATCAA: 1500ft 11,000ft



Airspace Establishment and Modification Highlights Under the Proposal

- Would add a *Proposed Restricted Area* (RA) over Johnson Valley and a *Johnson Valley MOA/ATCAA* to the west of the current *R2501 RA*.
 - In the newly proposed Restricted Area, the floor of the airspace would only go down to 1,500 feet above ground level anywhere it is not above the installation; for the areas above the installation the surface would go to the ground.
- Would add *Proposed CAX Corridor High/Low MOA/ATCAA* between currently authorized *Bristol MOA/ATCAA* and *Turtle MOA/ATCAA*.
- Would expand Sundance MOA/ATCAA to the south, east and west and modify it vertically.
- Would modify the vertical limits of the Bristol, and Turtle MOAs/ATCAAs.
- The airspace proposal was developed to address stakeholder comments during the National Environmental Policy Act (NEPA) process.



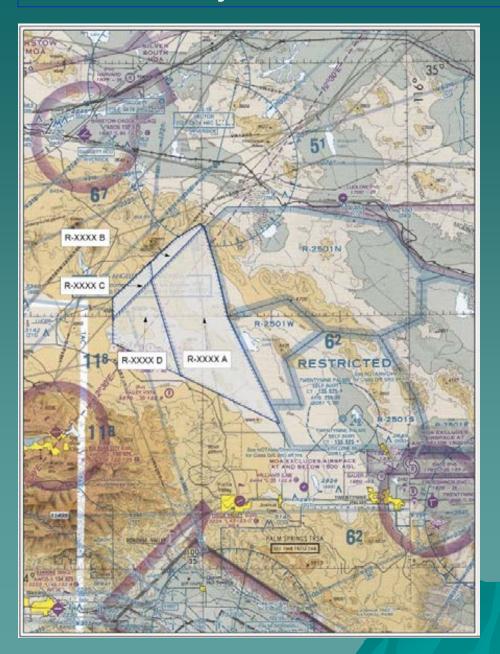
Proposals for Airspace Establishment and Modification Follow on the Next Pages

(Graphic depiction, Longitude/Latitude)

Time of Use Details Follow Restricted Airspace Graphic; Time of Use Details for MOA/ATCAA Are at the End of the Brief

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





Proposed Restricted Airspace

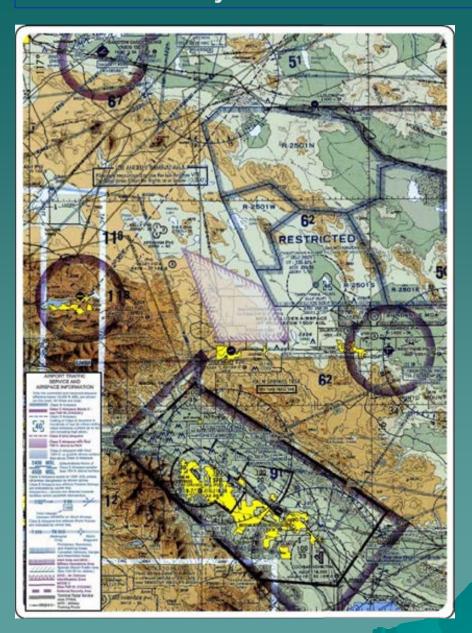
```
Boundaries (perimeter) - Beginning
at lat 34° 17′ 26"N; long 116° 19′ 03"W
to lat 34° 30′ 00"N; long 116° 26′ 23"W
to lat 34° 35′ 12"N; long 116° 27′ 50"W
to lat 34° 40′ 30"N; long 116° 29′ 43"W
to lat 34° 40′ 47"N; long 116° 30′ 18"W
to lat 34° 36′ 15"N; long 116° 37′ 33"W
to lat 34° 32′ 09"N; long 116° 42′ 51"W
to lat 34° 29′ 44"N; long 116° 42′ 51"W
to lat 34° 26′ 57"N; long 116° 42′ 51"W
to lat 34° 23′ 08"N; long 116° 33′ 06"W
to the point of beginning.
R-XXXX A - Beginning
at lat 34° 17′ 26"N; long 116° 19′ 03"W
to lat 34° 30′ 00"N; long 116° 26′ 23"W
to lat 34° 35′ 12"N; long 116° 27′ 50"W
to lat 34° 40′ 30"N; long 116° 29′ 43"W
to lat 34° 34′ 20"N; long 116° 37′ 14"W
to lat 34° 23′ 08"N; long 116° 33′ 06"W
to the point of beginning.
Surface to FL 400.
R-XXXX B - Beginning
at lat 34° 40′ 47"N; long 116° 30′ 18"W
to lat 34° 36′ 15"N; long 116° 37′ 33"W
to lat 34° 34′ 20"N; long 116° 37′ 14"W
to lat 34° 40′ 30"N; long 116° 29′ 43"W
to the point of beginning.
Surface to 8,000 feet MSL.
R-XXXX C - Beginning
at lat 34° 36′ 15"N; long 116° 37′ 33"W
to lat 34° 32′ 09"N; long 116° 42′ 51"W
to lat 34° 29′ 44″N; long 116° 42′ 51″W
to lat 34° 34′ 20"N; long 116° 37′ 14"W
to the point of beginning.
Surface to 8,000 feet MSL.
R-XXXX D - Beginning
at lat 34° 34′ 20"N; long 116° 37′ 14"W
to lat 34° 29′ 44"N; long 116° 42′ 51"W
to lat 34° 26′ 57"N; long 116° 42′ 51"W
to lat 34° 23′ 08"N; long 116° 33′ 06"W
to the point of beginning.
Surface to FL 400.
```



Periods of Use for Proposed Restricted Airspace

- The Proposed RA would intermittently be activated through NOTAM for use of direct fire and indirect fire weapons (e.g., rifles, lasers, mortars, artillery, demolitions), Unmanned Aerial Systems and/or close air support by rotary wing and fixed wing aircraft from surface to FL 400. Of this activity, 15% would be at night.
- R-XXXX A would be activated from surface to FL 180 for up to 12 hours per day for up to 28 days per year, and from surface to FL 270 for up to 24 hours per day for 6 days per year.
- R-XXXX B would be activated from surface to 8,000 feet MSL for up to 12 hours per day for up to 28 days per year, and up to 24 hours per day for 6 days per year.
- R-XXX A/D would be activated from surface to FL 400 and R-XXX B/C would be activated from surface to 8,000 feet MSL for up to 12 hours per day for 6 days per year (not to exceed 40 hours per year).





Proposed Johnson Valley MOA/ATCAA

```
Boundaries. Beginning at lat 34 23' 08"N; long 116 33' 06"W; to lat 34 17' 26"N; long 116 19' 03"W; to lat 34 09' 30"N; long 116 14' 15"W; to lat 34 09' 30"N; long 116 26' 51"W; to the point of beginning.

Altitudes. From 3000 feet AGL to FL 400.
```



Periods of Use for Proposed Johnson Valley MOA/ATCAA

- The Proposed Johnson Valley MOA/ATCAA would be activated by NOTAM in support of fixed wing, rotary wing and tilt-rotor aircraft training events at various altitudes from 3000 feet AGL up to and including FL 400.
- The Proposed Johnson Valley MOA/ATCAA would be activated as follows:
 - from 3000 feet AGL to FL 180 for up to 12 hours per day for up to 28 days per year;
 - from 3000 feet to FL 270 for up to 24 hours per day for 6 days per year; and,
 - from 3000 feet AGL to FL 400 for up to 12 hours per day for 6 days per year (not to exceed 40 hours per year).





Proposed New Sundance MOA/ATCAA

Modified laterally and vertically from current configuration.

```
Boundaries. Beginning
at lat 34 14' 00"N; long 116 17' 03"W;
to lat 34 09' 30"N; long 116 14' 15"W;
to lat 34 09' 30"N; long 115 49' 17"W;
to lat 34 13' 60"N; long 115 44' 03"W;
to the point of beginning.
```

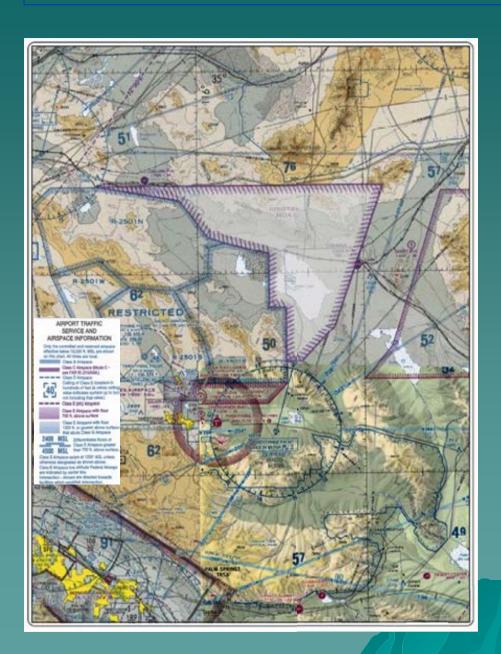
From 1500 feet AGL to FL 400



Periods of Use for Proposed New Sundance MOA/ATCAA

- The New Sundance MOA/ATCAA would be activated by NOTAM in support of fixed wing, rotary wing and tilt-rotor aircraft training events. Activation of the proposed New Sundance MOA/ATCAA would be at various altitudes from 1500 feet AGL up to and including FL 400. The proposed New Sundance MOA/ATCAA use would include day and night operations. New Sundance MOA/ATCAA would be activated as follows:
 - from 1500 feet AGL to 10,000 feet MSL intermittently via NOTAM;
 - from 1500 feet AGL to FL 180 for up to 12 hours per day for up to 28 days per year;
 - from 1500 feet to FL 270 for up to 24 hours per day for 6 days per year; and,
 - from 1500 feet AGL to FL 400 for up to 12 hours per day for 6 days per year (not to exceed 40 hours per year).





New Bristol MOA/ATCAA

Modified vertically from current Bristol MOA/ATCAA

```
Boundaries. Beginning

at lat 34 40' 60"N; long 116 03' 03"W;
to lat 34 35' 30"N; long 115 58' 03"W;
to lat 34 34' 45"N; long 115 54' 46"W;
to lat 34 33' 00"N; long 115 47' 03"W;
to lat 34 25' 00"N; long 115 47' 03"W;
to lat 34 24' 60"N; long 115 44' 03"W;
to lat 34 16' 60"N; long 115 44' 03"W;
to lat 34 16' 60"N; long 115 44' 13"W;
to lat 34 21' 60"N; long 115 35' 23"W;
to lat 34 42' 50"N; long 115 26' 33"W;
to the point of beginning
```

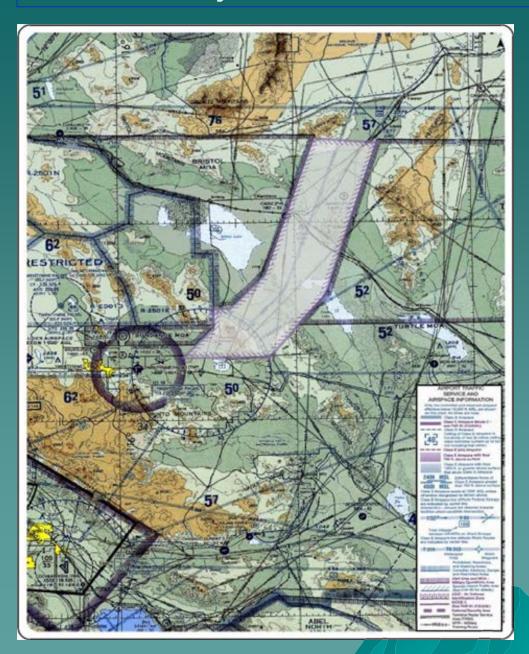
Altitudes. From 1500 feet AGL to FL 400



Periods of Use for Proposed New Bristol MOA/ATCAA

- The New Bristol MOA/ATCAA would be activated 5000 feet MSL up to FL 220, 0700 1500 Monday through Friday and other times by NOTAM in support of fixed wing, rotary wing and tilt-rotor aircraft training events. Activation of the proposed New Bristol MOA/ATCAA at various altitudes from 1500 feet AGL up to and including FL 400 would be either by itself or in conjunction with the activation of existing and proposed restricted airspace and proposed and existing MOA/ATCAAs. The proposed New Bristol MOA/ATCAA use would include day and night operations. New Bristol MOA/ATCAA would be activated as follows:
 - from 5,000 feet MSL to FL 220 from 0700-1500 Monday -Friday;
 other times by NOTAM;
 - from 1500 feet AGL to FL 180 for up to 12 hours per day for up to 28 days per year;
 - from 1500 feet AGL up to FL 270 for up to 24 hours per day for 6 days per year; and,
 - from 1500 feet AGL to FL 400 for up to 12 hours per day for 6 days per year (not to exceed 40 hours per year).





Proposed CAX Corridor High/Low MOA/ATCAA

```
CAX Corridor High MOA/ATCAA Boundaries.

Beginning
at lat 34° 42′ 50″N; long 115° 26′ 33″W;
to lat 34° 21′ 60″N; long 115° 35′ 23″W;
to lat 34° 16′ 60″N; long 115° 41′ 13″W;
to lat 34° 16′ 60″N; long 115° 44′ 03″W;
to lat 34° 13′ 60″N; long 115° 44′ 03″W;
to lat 34° 09′ 30″N; long 115° 49′ 17″W;
to lat 34° 09′ 28″N; long 115° 34′ 34″W;
to lat 34° 13′ 60″N; long 115° 30′ 03″W;
to lat 34° 19′ 00″N; long 115° 25′ 03″W;
to lat 34° 42′ 04″N; long 115° 15′ 48″W;
to the point of beginning

Altitude: From FL 180 up to FL 400
```

```
CAX Corridor Low MOA Boundaries.

Beginning

at lat 34° 42′ 50″N; long 115° 26′ 33″W;

to lat 34° 21′ 60″N; long 115° 35′ 23″W;

to lat 34° 16′ 60″N; long 115° 41′ 13″W;

to lat 34° 16′ 60″N; long 115° 44′ 03″W;

to lat 34° 13′ 60″N; long 115° 44′ 03″W;

to lat 34° 09′ 30″N; long 115° 49′ 17″W;

to lat 34° 09′ 28″N; long 115° 34′ 34″W;

to lat 34° 13′ 60″N; long 115° 30′ 03″W;

to lat 34° 19′ 00″N; long 115° 25′ 03″W;

to lat 34° 42′ 04″N; long 115° 15′ 48″W;

to the point of beginning
```

Altitude: From 1500 feet AGL up to 8000 feet



Periods of Use for Proposed CAX Corridor High/Low MOA/ATCAA

- The Proposed CAX Corridor High/Low MOA/ATCAA would be activated by NOTAM in support of fixed wing, rotary wing and tilt-rotor aircraft training events, to include day and night operations. Activation of the proposed CAX Corridor High/Low MOA/ATCAA would be either by itself or in conjunction with the activation of proposed and existing restricted airspace and MOA/ATCAAs.
- The Proposed CAX Corridor High MOA/ATCAA would be activated:
 - from FL 180 up to FL 270 for up to 24 hours per day for 6 days per year; and,
 - from FL 180 to FL 400 for up to 12 hours per day for 6 days per year (not to exceed 40 hours per year).
- The Proposed CAX Corridor Low MOA would be activated:
 - from 1500 feet AGL up to 8000 feet for up to 24 hours per day for 6 days per year; and,
 - from 1500 feet AGL up to 8000 feet for up to 12 hours per day for 6 days per year).





Proposed New Turtle MOA/ATCAA A

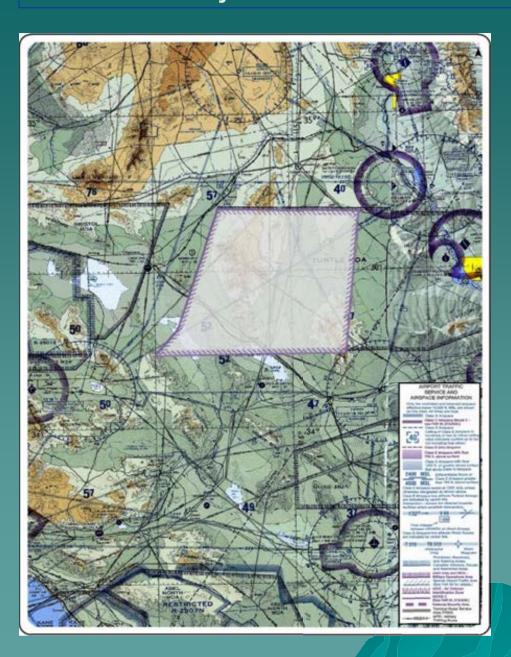
Modified Vertically from current Turtle MOA/ATCAA

```
Turtle A MOA/ATCAA Boundaries. Beginning
```

```
at lat 34° 42′ 04″N; long 115° 15′ 48″W; to lat 34° 19′ 00″N; long 115° 25′ 03″W; to lat 34° 13′ 60″N; long 115° 30′ 03″W; to lat 34° 14′ 00″N; long 114° 30′ 03″W; to lat 34° 23′ 00″N; long 114° 00′ 03″W; to lat 34° 40′ 00″N; long 114° 00′ 03″W; to the point of beginning, from 11,000 feet AGL to FL 220.
```

Altitude: from 11,000 feet AGL to FL 220.





Proposed New Turtle MOA/ATCAA B & C

Modified Vertically from current Turtle MOA/ATCAA

```
Turtle B MOA/ATCAA Boundaries. Beginning
at lat 34° 42′ 04″N; long 115° 15′ 48″W;
to lat 34° 19′ 00″N; long 115° 25′ 03″W;
to lat 34° 13′ 60″N; long 115° 30′ 03″W;
to lat 34° 14′ 03″N; long 114° 48′ 07″W;
to lat 34° 41′ 13″N; long 114° 44′ 42″W;
to the point of beginning.

Altitude. from FL 220 to FL 400.

Turtle C MOA Boundaries. Beginning
at lat 34° 42′ 04″N; long 115° 15′ 48″W;
to lat 34° 19′ 00″N; long 115° 25′ 03″W;
to lat 34° 13′ 60″N; long 115° 30′ 03″W;
to lat 34° 14′ 03″N; long 115° 48′ 07″W;
to lat 34° 41′ 13″N; long 114° 48′ 07″W;
to lat 34° 41′ 13″N; long 114° 44′ 42″W;
to the point of beginning.

Altitude: from 1500 feet AGL to 11,000 feet.
```



Periods of Use for Proposed New Turtle MOA/ATCAA

- Activation of the proposed New Turtle MOA/ATCAA at various altitudes from 1500 feet AGL up to and including FL 400 would be either by itself or in conjunction with the activation of proposed and existing restricted airspace and MOA/ATCAAs; and would include day and night operations.
 - The new Turtle MOA/ATCAA A would be activated from 11,000 feet MSL to FL 220 from 0600-1600 Monday-Friday; other times by NOTAM; and,
 - The New Turtle MOA/ATCAA B and C would be activated by NOTAM in support of fixed wing aircraft training events from 1500 feet AGL to FL 270 for up to 24 hours per day for 6 days per year. (Turtle MOA/ATCAA A would also be active 11,000 feet to FL 220 during these times.)
 - The New Turtle MOA/ATCAA B and C would be activated by NOTAM in support of fixed wing aircraft training events from 1500 feet AGL to FL 400 for up to 12 hours per day for 6 days per year (not to exceed 40 hours per year). (Turtle MOA/ATCAA A would also be active 11,000 ft to FL 220 during these times.)



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 Environmental Impact Statement Scoping, September and October 2008; multiple public comment periods
- Record of Decision (ROD) published February 2013
- Congress and President enact land withdrawal and acquisition, December 2013

Project Path Forward

- Request FAA commence consideration of Special Use Airspace proposal, 2014
- Complete FAA airspace review and rule making processes, 2014-2015
- Complete Necessary Training Range Improvements, 2014-2015
- Implement and Sustain Required Mitigation, 2014 and beyond
- Commence Training, 2014; Commence MEB training, 2015



Next Steps in the Airspace Review Process

- USMC has submitted proposals for establishment and modification of Special Use Airspace to FAA Western Service Area via the Naval Representative
- FAA commences processes for rule making (for Restricted Airspace) and nonrule making (for MOA/ATCAA), an extensive process that can take up to several years to complete. Some of the key FAA steps are set out below:
 - 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 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





Conclusion

- The Marine Corps has studied reasonable Special Use Airspace 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, livefire 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 when not needed for military training.
- Throughout the FAA processes to establish Special Use Airspace, stakeholders will have opportunities to comment on the proposal submitted by the Marine Corps 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 national airspace.
- We look forward to working with you in the years ahead as the Combat Center continues its important mission for the nation.



Questions / Discussion