



## Proposed Action and Alternatives

The U.S. Marine Corps is directed by law to operate as a combined-arms force on land, in the air and at sea. The Marine Corps Air Ground Combat Center (Combat Center) at Twentynine Palms, Calif., is the Marine Corps' largest combined-arms, live-fire training range complex. More than 90 percent of Marines that deploy to combat receive pre-deployment training at the Combat Center.

**Marine Expeditionary Brigades (MEBs) are the Marine Corps' premier response force for combined-arms operations.** MEBs must be capable of performing a variety of missions throughout the spectrum of conflict. The task of successfully integrating all elements of a MEB to produce a cohesive, effective fighting force is best accomplished through realistic training that replicates the conditions Marines are likely to encounter in combat.

## Proposed Action

To ensure essential training requirements are met within appropriate margins of safety, the Marine Corps proposes to:

- **Acquire sufficient land** contiguous to the Combat Center to accommodate realistic MEB-sized sustained, combined-arms, live-fire and maneuver training exercises.
- **Modify and establish Special Use Airspace** to align with the proposed ground ranges to enable full integration of MEB-sized Aviation Combat Element operations and both air- and ground-delivered live-fire ordnance training.
- **Expand training** to include a full-scale MEB exercise conducted twice per year for 24 continuous days each. Current levels of proficiency training (Building Block training) by individual home station and external units would also occur.

The proposed action would provide a means for fulfilling the Marine Corps' requirement for sustained, combined-arms, live-fire and maneuver training exercises for a MEB. The proposed action is needed because current Marine Corps training bases, facilities, ranges, and live-fire ground and air maneuver areas are inadequate to support MEB-sized training exercises.

**Training a Marine Expeditionary Brigade (MEB) — approximately 15,000 Marines — requires more military range land and airspace than is now available anywhere in the United States. The Center for Naval Analyses studied locations nationwide and concluded that the Combat Center is the only location with the potential to sufficiently expand land area and airspace to meet MEB training requirements.**

**More than 90 percent of Marines that deploy to combat receive pre-deployment training at the Combat Center.**



The **Marine Corps** is the **nation's premier expeditionary force** and must maintain a high state of training and readiness to be ready to respond immediately to crises anywhere in the world in defense of the nation and its allies and interests.





## Evaluating the Alternatives

The Marine Corps has prepared a Draft Environmental Impact Statement (EIS) to evaluate the expansion of the training range at the Combat Center. Six action alternatives, which include a No-Action Alternative. These analyses, along with public comments on the Draft EIS, are available for review.



Alternative	Proposed Land Acquisition (Acres)*	Proposed Airspace Establishment and Modification	Proposed Expansion of Training
<b>No-Action Alternative</b>	Would seek no additional lands and no additions or changes to Special Use Airspace.		
<b>Alternative 1</b>	West: 180,353 South: 21,304  <b>Total: 201,657</b>	Establish new airspace to the west, south and east to accommodate live-fire from air and ground units  Expand or modify dimensions of existing airspace	<b>MEB Exercises:</b> <ul style="list-style-type: none"> <li>Two per year for 24 days each</li> </ul> <b>MEB Work-up:</b> <ul style="list-style-type: none"> <li>Focused on western half of Combat Center and west study area</li> </ul> <b>MEB Final Exercise:</b> <ul style="list-style-type: none"> <li>East-to-west direction of maneuver</li> <li>Two task forces assemble east side of Combat Center; one in south study area; all three converge on single MEB objective in west study area</li> </ul> <b>MEB Building Block training:</b> <ul style="list-style-type: none"> <li>4-day evolutions in west study area up to 40 weeks/year; only unit marshalling and maneuver in south study area</li> </ul> <b>Installation of three communications towers</b> <b>Increase of 70 personnel</b>
<b>Alternative 2</b>	Partial West: 113,558 South: 21,304  <b>Total: 134,863</b>	Airspace configuration similar to Alternative 1, but reduced airspace over west study area	<b>MEB Exercises:</b> <ul style="list-style-type: none"> <li>Two per year for 24 days each</li> </ul> <b>MEB Work-up:</b> <ul style="list-style-type: none"> <li>Focused on western half of Combat Center and reduced west study area</li> </ul> <b>MEB Final Exercise:</b> <ul style="list-style-type: none"> <li>East-to-west direction of maneuver</li> <li>Two task forces assemble east side of Combat Center; one in south study area; all three converge on single MEB objective in reduced west study area</li> </ul> <b>MEB Building Block training:</b> <ul style="list-style-type: none"> <li>4-day evolutions in reduced west study area up to 40 weeks/year; only unit marshalling and maneuver in south study area</li> </ul> <b>Installation of three communications towers</b> <b>Increase of 65 personnel</b>



\* Acreage is approximate


evaluate the potential environmental impacts associated with the proposed which differ by location and acreage, were evaluated in the Draft EIS along with a EIS, will help the Assistant Secretary of the Navy arrive at the most informed decision.



Alternative	Proposed Land Acquisition (Acres)*	Proposed Airspace Establishment and Modification	Proposed Expansion of Training
<b>Alternative 3</b> 	East: 177,276 South: 21,304  <b>Total: 198,580</b>	Establish new airspace to the east and south to accommodate live-fire from air and ground units  Expand or modify dimensions and reclassify existing airspace	<b>MEB Exercises</b> <ul style="list-style-type: none"> <li>Two per year for 24 days each</li> </ul> <b>MEB Work-up:</b> <ul style="list-style-type: none"> <li>Focused on eastern half of Combat Center</li> </ul> <b>MEB Final Exercise:</b> <ul style="list-style-type: none"> <li>East-to-west direction of maneuver</li> <li>Two task forces assemble in east study area; one in south study area; all three converge on single MEB objective in northwest corner of Combat Center</li> </ul> <b>MEB Building Block training:</b> <ul style="list-style-type: none"> <li>4-day evolutions in east study area up to 40 weeks/year; only unit marshalling and maneuver in south study area</li> </ul> <b>Installation of two communications towers</b> <b>Construction of four tank crossings on Amboy Road</b> <b>Increase of 59 personnel</b>
<b>Alternative 4</b> 	West: 180,353 South: 21,304  <b>Total: 201,657</b>	Establish new airspace to the west, south and east to accommodate live-fire from air and ground units  Expand or modify dimensions of existing airspace	<b>MEB Exercises:</b> <ul style="list-style-type: none"> <li>Two per year for 24 days each</li> <li>Only non-dud producing ordnance in west study area</li> <li>Restricted public access to Johnson Valley (except for two Company Objective areas) permitted approximately 10 months/year</li> </ul> <b>MEB Work-up:</b> <ul style="list-style-type: none"> <li>Focused on western half of Combat Center</li> </ul> <b>MEB Final Exercise:</b> <ul style="list-style-type: none"> <li>West-to-east direction of maneuver</li> <li>Three task forces assemble in west study area; two converge on single MEB objective on east side of Combat Center; one terminates the exercise in the south study area</li> </ul> <b>MEB Building Block training would occur within existing Combat Center boundaries (except maneuver/marshalling in south study area)</b> <b>Installation of three communications towers</b> <b>Increase of 77 personnel</b>

\* Acreage is approximate



Alternative	Proposed Land Acquisition (Acres)*	Proposed Airspace Establishment and Modification	Proposed Expansion of Training
<b>Alternative 5</b> 	West only <b>Total: 180,353</b>	Establish new airspace to the west, south and east to accommodate live-fire from air and ground units  Expand or modify dimensions of existing airspace	<p><b>MEB Exercises:</b></p> <ul style="list-style-type: none"> <li>Two per year for 24 days each</li> <li>Only non-dud producing ordnance in west study area</li> <li>Restricted public access to Johnson Valley (except for two Company Objective areas) permitted approximately 10 months/year</li> </ul> <p><b>MEB Work-up:</b></p> <ul style="list-style-type: none"> <li>Focused on western half of Combat Center</li> </ul> <p><b>MEB Final Exercise:</b></p> <ul style="list-style-type: none"> <li>West-to-east direction of maneuver</li> <li>Three task forces assemble in west study area; two converge on single MEB objective on east side of Combat Center; one terminates the exercise with training at the existing lands</li> </ul> <p><b>MEB Building Block training would occur only within existing Combat Center boundaries</b></p> <p><b>Installation of three communications towers</b></p> <p><b>Increase of 77 personnel</b></p>
<b>Alternative 6 (Preferred Alternative)</b>	West: 146,667 <ul style="list-style-type: none"> <li>Restricted Public Access Area (RPAA): 38,137</li> <li>Exclusive Marine Corps Use: 108,530</li> </ul> South: 21,304  <b>Total: 167,971</b>	Establish new airspace to the west, south and east to accommodate live-fire from air and ground units  Expand or modify dimensions of existing airspace	<p><b>MEB Exercises:</b></p> <ul style="list-style-type: none"> <li>Two per year for 24 days each</li> <li>Only non-dud producing ordnance in southern portion of west study area</li> <li>Restricted public access to southern portion of west study area (except for two Company Objective areas) permitted approximately 10 months/year</li> </ul> <p><b>MEB Work-up:</b></p> <ul style="list-style-type: none"> <li>Western half of Combat Center and part of west study area (exclusive military use area)</li> </ul> <p><b>MEB Final Exercise:</b></p> <ul style="list-style-type: none"> <li>East-to-west direction of maneuver</li> <li>Two task forces assemble east side of Combat Center; one in south study area; all three converge on single MEB objective in west study area (exclusive use parcel)</li> </ul> <p><b>RPAA would be used during MEB exercises only; only non-dud producing ordnance would be used in that area</b></p> <p><b>MEB Building Block training:</b></p> <ul style="list-style-type: none"> <li>4-day evolutions in the west study area (exclusive military use area only) up to 40 weeks/year and only unit marshalling/maneuver in south study area</li> </ul> <p><b>Installation of three communications towers</b></p> <p><b>Increase of 77 personnel</b></p>

**The Marine Corps listened to the public during the scoping phase and that input led to the development of Alternative 6, which is now the Marine Corps' preferred alternative. Alternative 6 is the preferred alternative when considering both operational and environmental impact factors.**



\* Acreage is approximate

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## Environmental Effects

The Marine Corps has prepared a Draft Environmental Impact Statement (EIS) to assess potential environmental impacts of its proposed action to expand the training range at the Marine Corps Air Ground Combat Center (Combat Center) at Twentynine Palms, Calif. Potential impacts on 13 resource areas are assessed for six action alternatives and a No-Action Alternative.

This fact sheet summarizes the potential impacts on each resource area. Impacts may vary among the alternatives. For more detailed information about possible impacts, please refer to the Draft EIS, available at [www.marines.mil/unit/29palms/las](http://www.marines.mil/unit/29palms/las).

## Recreation

To find a balance between recreational interests and training requirements, the Marine Corps evaluated various land acquisition and public access scenarios. The Johnson Valley Off-Highway Vehicle (OHV) Area would be impacted in varying degrees by five of the six action alternatives. There are no established recreational areas in the east or south study areas, although there may be some occasional recreational activity.

To lessen impacts on the OHV community and other recreational users, a Restricted Public Access Area (RPAA) in Johnson Valley is proposed under Alternatives 4, 5 and 6. An RPAA allows permitted public recreational use of lands when not in use for military training activities and would:

- Allow public use of the land for approximately 10 months/year and designate land for exclusive military training two months/year; Alternative 6 proposes a portion for exclusive military use year-round
- Require a Marine Corps permit for public access and use of the area
- Require use of only non-dud producing ordnance when firing into the RPAA to increase public safety; however, dud producing ordnance would be used in the Alternative 6 exclusive military use area
- Require clean up of the RPAA after training activities to increase public safety
- Be subject to a determination by the Commanding General that the area has been returned to a condition suitable for authorized public access following each Marine Expeditionary Brigade Exercise

Table 1 shows the usable acreage and percent of area remaining available under each alternative.

**Table 1. Johnson Valley OHV Area: Percentage of Usable Acreages Remaining under each Alternative**

Alternative	Usable Acreage* Available for Recreation	Percent of Johnson Valley OHV Area Available for Recreation
<b>No-Action Alternative</b>	189,470	100% (12 months per year)
<b>Alternative 1</b>	17,640	9% (12 months per year)
<b>Alternative 2</b>	86,200	46% (12 months per year)
<b>Alternative 3</b>	189,470	100% (12 months per year)
<b>Alternative 4</b>	189,470	100% (10 months per year)
<b>Alternative 5</b>	189,470	100% (10 months per year)
<b>Alternative 6</b> (Preferred Alternative)	82,802	44% (10 months per year)

\* Acreage is approximate

## What is an RPAA?

A Restricted Public Access Area, or RPAA, is an area where permitted public recreational use of lands is allowed when not in use for military training activities.



Special conservation measures regarding recreation include developing an Educational Outreach Plan, distributing educational materials, posting appropriate signage and working with local community leaders, law enforcement and government officials.





## Mitigation and Special Conservation Measures

The U.S. Marine Corps will implement a variety of mitigation and special proposed expansion of the training range. Measures include, but are not evaluating habitat conditions for listed species, and developing new and

## Land Use

Land use refers to the various ways land might be used or developed, the kinds of activities allowed and the type and size of structures permitted. Land use is regulated by management plans, policies, ordinances and regulations. The land use analysis for the Draft EIS includes the Combat Center and lands underneath the associated airspace, the three proposed land acquisition study areas under consideration (west, east and south), and lands underneath airspace proposed for establishment or modification. Much of the area for the land use analysis comprises public land.

Under all alternatives, land use would be inconsistent with the California Desert Conservation Area Plan grazing or multiple use provisions and agricultural and residential land use designations. All action alternatives, except Alternative 3, would also be inconsistent with the Johnson Valley OHV Area Management Plan. Under all action alternatives, less than significant impacts on the acquisition of federal, non-federal and state lands, mining claims and residential and non-residential property are anticipated. Under Alternative 1, significant impacts would occur if alternative energy projects could not move forward.

*The Marine Corps is committed to working with land use planning agencies, organizations and the community to seek compatible land uses.*

## Socioeconomics and Environmental Justice

The primary focus of the socioeconomic analysis is the economic effects of net changes in retail business activity and employment/income related to potential reductions in recreational and film industry expenditures, mining and agricultural business activities, and the anticipated increase in the number of Combat Center personnel. Potential impacts on civilian aviation, including commercial air carriers and general aviation aircraft, were also considered.

The extent of economic impacts varies for each action alternative. Impacts would result from the acquisition of privately owned land, regional and local impacts from lost sales tax revenue, impacts on small businesses and jobs, and impacts from the reduction in property tax. There may also be indirect impacts related to civilian aviation. There would be economic benefit from additional personnel at the Combat Center.

## Public Health and Safety

With implementation of the proposed action, current safety plans and procedures, including those related to ordnance use, would be updated to include the new training areas.

*Special conservation measures would minimize potential impacts on public health and safety from increased training activities. These measures include:*

- Permanent signage for the RPAA and exclusive military use areas
- Manned roadblocks along all access routes immediately before and throughout training
- Increased military presence immediately before training to prevent mistaken entry by civilians to the training range
- Overflights before training to identify any public presence
- Range sweeps for non-military personnel before training
- Clean up of the RPAA after training
- Informational outreach program for local citizens, community leaders and interest groups



conservation measures to avoid or minimize potential impacts from the limited to, preparing a Recreation Management Plan, monitoring and updating existing resource management plans.



## Visual Resources

Visual resources, or aesthetics, are the natural and human-made features of the landscape that can be seen and that contribute to the public's appreciative enjoyment of the environment.

For all action alternatives, there are either no or less than significant visual impacts anticipated at key viewpoints. Impacts would be short-term and during a specific timeframe (during training activities, construction, etc.); however, a loss of scenic or unique views in Johnson Valley would occur, with the exception of Alternative 3. Under Alternatives 4, 5 and 6, less than significant visual impacts are expected from soils that have been disturbed in the RPAA.

## Airspace Management

The region in which new Special Use Airspace (SUA) is proposed is considered to be among the busiest in the nation for both civilian and military aircraft operations. Each of the six action alternatives addresses the need to modify existing and establish new SUA to fully meet training requirements. Establishing new and modifying existing SUA would have potential impacts on airspace management and public and private airports in close proximity to SUA.

*The Federal Aviation Administration (FAA) will evaluate a final airspace proposal after the Marine Corps issues its Final EIS. The FAA and Marine Corps will further address impacts and mitigation measures at that time. The Marine Corps will continue working with airport operators and general aviation pilot groups to minimize impacts on the aviation community.*



## Transportation and Circulation

Transportation and circulation refers to roadway and street systems and the movement of vehicles on roadway networks. Potential impacts on transportation and circulation within and in the immediate vicinity of the Combat Center and the proposed acquisition study areas are analyzed in the Draft EIS.

With the exception of Alternative 3, all action alternatives would result in less than significant impacts, including no impacts on major public roads, although there could be an increase in traffic volume during training. Alternative 3 presents a significant impact since public access to North Amboy Road would be lost during the initial phases of training.

## Noise

The primary sources of noise are aircraft and ordnance.

- Aircraft noise impacts – Under all action alternatives, overflights would increase and occur at lower altitudes compared to current activities. Noise-related impacts in proposed airspace would be less than significant.
- Ordnance noise impacts – Ordnance noise impacts would be primarily from ground-to-ground and air-to-ground ordnance use. Under all action alternatives, there would be less than significant impacts from noise.

No persons or sensitive receptors outside the study areas would be exposed to significant increases in noise levels.

## Biological Resources

The Marine Corps analyzed the potential impacts from training activities on wildlife, vegetation and ecosystems. Comments received during the public scoping process expressed concern about the Marine Corps' impact on the federally-listed threatened desert tortoise. Impacts on the desert tortoise and its non-critical habitat vary for each action alternative. There are also indirect impacts from displacing OHV users to other areas. Alternative 1 has the greatest impact on desert tortoise species levels and Alternative 3 has the least impact. There are no impacts on designated desert tortoise critical habitat.



*The Marine Corps has developed special conservation measures for biological resources for each action alternative. Some of these include:*

- Designing training exercises to minimize disturbance
- Surveying and monitoring listed species and species at risk to minimize impacts
- Evaluating habitat conditions to facilitate ecosystem management



## Cultural Resources

Potential impacts on cultural resources were analyzed in accordance with the National Historic Preservation Act and in consultation with the State Historic Preservation Office (SHPO). Marine Corps efforts to protect cultural resources at the Combat Center include educating personnel about their significance and the relevant federal laws that protect them.

Ground disturbances from construction, training and operations activities would result in significant direct and indirect impacts on cultural resources for all action alternatives. Impacts on archeological sites may occur as a result of proposed military training in acquired lands. No impacts are anticipated from the proposed airspace establishment. Under Alternatives 4, 5 and 6, impacts would potentially occur from OHV activity in Johnson Valley during the 10 months of restricted public access.

*To minimize impacts on cultural resources, the Marine Corps would work with SHPO and Native American Tribes to minimize adverse effects through avoidance, data recovery and curation, and develop additional conservation measures to include all newly acquired lands and cultural resources.*



## Geological Resources

The Marine Corps analyzed the potential direct and indirect impacts from training activities on soils, minerals and paleontological resources. Impacts vary for each action alternative. In general, soil impacts would occur from ground disturbance. Impacts on minerals would occur if there are active mines in the area that are purchased and closed, or if sand or gravel is no longer available for sale. Impacts on fossils would occur if they are present in soils in the training areas.



*The Marine Corps would continue and extend programs and procedures to avoid and minimize impacts on soils, such as:*

- *Requiring vehicular traffic to stay on well-defined roads unless training scenarios require otherwise*
- *Using previously disturbed sites as much as possible during off-road maneuvers to minimize damage to undisturbed sites*

## Air Quality

Impacts on air quality from emissions and dust would potentially occur from equipment used during construction activities and by vehicles, aircraft and ordnance used during training and operational activities. Alternative 3 would produce significant impacts on ambient particulate matter less than 10 microns in diameter (PM<sub>10</sub>) levels. Increases in emissions of other air pollutants would produce less than significant impacts. Emissions from proposed activities would produce less than significant impacts on air quality values and visibility within Joshua Tree National Park. The California Air Resources Board and the Mojave Desert Air Quality Management District conclude that the project would conform with the federal Clean Air Act and the State Implementation Plan.

*Special conservation measures, such as minimizing ground disturbing activities, using water trucks to minimize dust and minimizing ground disturbing activities during high wind conditions, would minimize potential impacts.*

## Water Resources

Water resources include surface water and groundwater within the Combat Center and the proposed study areas. For all action alternatives, current and future water needs at the Combat Center would be addressed by implementation of an Installation Energy and Sustainability Strategy. The strategy would balance water demands with water supplies by increasing water conservation, using more recycled water, importing water and treating lower quality groundwater. *With implementation of this special conservation measure, the proposed action would have no impacts on groundwater recharge and less than significant impacts on groundwater quality and groundwater flow patterns.*

