

Marine Corps Air Ground Combat Center Sound Reporting



MCAGCC AND THE MORONGO BASIN



The Marine Corps Air Ground Combat Center (MCAGCC) plays a vital role in safeguarding our nation's security while maintaining strong, mutually beneficial partnerships with local communities.

As the Marine Corps' largest combined-arms, live-fire training installation, the Combat Center's ranges provide realistic environments in both air and ground elements with the ability to support large-scale, live-fire and maneuver training. This vital year-round training for Marines, sailors, soldiers, airmen and America's allies cannot be replicated anywhere else in the world. Proud to call the California desert home, the Combat Center's service members, their families and civilian employees have long been part of the fabric of the Morongo Basin. The base provides significant economic, environmental and other benefits to the surrounding communities, and works cooperatively with the community and its leaders to be a good neighbor by protecting and preserving the desert while sustaining mission capabilities.

TRAINING SOUNDS

Critical training performed by Marines and sailors at the Combat Center prepares them for combat. They must train as they would fight — using the mortars, artillery, tanks, aircraft and small-arms weaponry they would use in combat. These training activities generate sounds that are sometimes heard in the surrounding communities. We understand that the sounds resulting from training activities may affect you. For some, the sounds coming from the Combat Center may be disruptive, while others may consider them the "Sounds of Freedom."

The Combat Center appreciates its impact on the local community and informs the public if sounds from training events may be heard outside of the installation. As well, the base solicits input from the local community regarding noise impacts so we may better understand the interaction between our training activities and what the community experiences.

WHERE DO THESE SOUNDS COME FROM?

Some sounds you hear may result from artillery shells exploding in the distance or aircraft flying nearby. Other sounds may seem like the ground is shaking, but what is actually happening is that low-frequency sound below the threshold of human hearing is traveling through the air and causing small vibrations in your windows and doors. Those vibrations travel through the air, not through the ground. Many factors impact how training sounds may be heard in the surrounding community.



DESERT ACCOUSTICS

Weather conditions can cause great variations in the sounds you hear. The same activity at the same place on different days can have very different sound signatures because of differences in humidity, temperature, and wind strength and direction.

Desert environmental factors that can affect whether noise related to military training is more prevalent include the following:

- Large seasonal changes in humidity — There is more sound absorption in humid weather. The sound of distance vehicles will be more noticeable in the dry months than in the wet months.
- Large day/night changes in temperature — higher sound levels at night — sound propagates further at night than during the day.
- Seasonal winds — Sound travels faster downwind than upwind.
- Sparse population — Areas with few people per square mile, have more natural quiet and lower baseline sound levels.
- Cloud coverage can sometimes amplify the sounds related to military training.

AIRCRAFT-RELATED SOUNDS AT THE COMBAT CENTER

To adhere to the Marine Corps' current and progressive service-level training requirements, the Combat Center must provide ample range and airspace for Marines to train for real-life scenarios. "Combined-arms" means that ground-based and airborne weapons systems are used during training. Aviation combat elements are composed of fixed- and rotary-winged aircraft to provide assault support, anti-air warfare, offensive air support and aerial reconnaissance. These activities are undertaken using different categories of Special Use Airspace established over the Combat Center for the purpose of military training, but may be heard in surrounding communities.

WHY MUST MILITARY AIRCRAFT FLY OUTSIDE OF THE BASE?

Aircraft are required to support realistic combined-arms, live-fire and maneuver training critical to achieving mission success. However, the Combat Center does not have aircraft organic to the base —meaning it is not an air station. Air corridors provide entry and exit of helicopters to and from Marine Corps installations such as those in Yuma, Arizona, and Miramar, California

Helicopters and aircraft entering and leaving airspace over MCAGCC utilize designated air corridors above communities. Helicopters entering and exiting MCAGCC airspace may use designated air corridors to transit to and from Marine Corps air stations. Flight paths are not like roads. Pilots traversing flight paths do not follow the same exact route each time they fly. Different factors can influence the specific course they travel such as daylight, weather, wind, air traffic, the presence of birds and the pilot's mission. Therefore, you may notice flight path patterns for some areas, but not in others.





HOW DO TRAINING SOUNDS AFFECT WILDLIFE AND DOMESTIC ANIMALS?

Domestic animals and wildlife respond in different ways to training sounds, depending on the type, strength, duration and source of the sound. It is difficult to generalize about how sounds affects animals because other environmental factors also can affect them. An animal's health, the presence of predators, availability of food and weather can have a profound impact on the behavior of domestic animals and wildlife. The majority of scientific sound-related studies indicate that domestic animals and wildlife exhibit some behavioral responses to sounds from military training and overflights, but generally seem to adjust to disturbances over time.

WE WANT TO KNOW WHAT YOU HEAR

To improve our understanding of how training affects the community, the Combat Center has implemented a sound-reporting system to receive community input. The information you provide enables us to monitor what sounds are being heard, when and where they are being heard, and their scale of impact on the community.

Through this reporting system, we will be able to match specific training areas, types of training and weather occurrences to better understand how they factor in to what the community hears. While MCAGCC's training mission must continue, if there is an opportunity to make adjustments to reduce the sounds, we'll try to take advantage of it.

To let us know what you hear, please call Government and External Affairs at **(760) 830-9222** or send an email to **PLMS-MCAGCC-SOUND_REPORTING@usmc.mil**.

Please include the time and date of the sound occurrence, where you were when you heard the sound and the type of sound that you heard (artillery, aircraft, other sound).

Providing your personal information is not required. However, if you want us to follow up with you, we will need a contact number or email address.

