

# Noise

**Camp Grayling Community Council** 

# WHAT

The greatest impact from noise on the surrounding area is from low flying aircraft and firing from rifle ranges and artillery impact. Low-level aircraft operations — ones that would create the greatest noise issues for residents — occur throughout the area, near launch and recovery sites like airports and airfields and along specially designated aircraft routes called military training routes (MTRs). Proximity to these locations increases the level of noise and subsequent disruption including shockwave vibrations.

Well-established flight paths help the military reduce confusion between pilots and controllers, and they also streamline training activities, which improves safety, economy, and efficiency. The Camp Grayling/Alpena CRTC training area encompasses a vast airspace both horizontally and vertically which is utilized by a number of entities including governmental, commercial, and private users. It also has an impact on land owners at lower altitudes.

### WHY

These activities are inherent in military training and are a vital component to the U.S. defense, which is why these activities are typically established in locations far separated from residential neighborhoods.

#### WHERE

Areas around Lake Margrethe, the Grayling Army Airfield, Range 30, and Range 40 (Guthrie Lakes) are the most impacted by this. See the map below for specific noise levels.



# WHAT CAN BE DONE?

Noise circulation is a complex phenomenon that can be influenced by wind, temperature, cloud cover, fog, topography, and man-made barriers such as homes and other buildings. Cloud cover can even cause a perceived increase in noise level. Weather has a large impact on the noise associated with explosions. Low pressure systems with high precipitation increases the noise from explosions.

**Tree Buffers**: The most effective way of buffering sound is to plant trees near the residences that are most impacted. Trees and thick vegetation are good tools to help reduce noise and shockwave vibrations emanating from the range. <u>Mixed broadleaf plantings at least 25 feet thick can reduce noise levels by up to 10 decibels</u>. Conifers would be needed for the same effect in the winter months.

**Plant Trees Near the Home, not the Sound Source**! These assets are most effective when located around the home rather than nearer the noise source, as the noise from a bomb blast or artillery fire does not hug the ground; rather, it radiates up into and through the atmosphere. To be effective, trees would need to hug the structure being protected from above as much as from the sides, which is not advised, as it leads to increased danger from fires and for roof damage. Placing vegetation near the impact area is inconsistent with safe range management because of the high potential for wildfires ignited from munition blast. It also degrades the usefulness of the range in visual targeting and scoring. Vegetation near firing points could slightly reduce sound vibration at lower levels. See the image below more information on noise buffering using only trees and trees with a landform (i.e. berm). Image from: Conservation Buffers: USDA National Agroforestry Center



#### https://www.fs.usda.gov/nac/buffers/guidelines/6\_aesthetics/4.html

**Insulate Homes**: Residents can improve insulation values in their homes to reduce the shockwave effect.

**Timber Harvesting by the DNR**: Timber harvest during DNR forest management of areas on or surrounding Camp Grayling may lead to temporary noise pollution for neighborhoods close to the cut. Cloud cover has more of an effect on noise projection than tree cover does, though the public is not always aware of this fact. The DNR is responsible for timber management and harvest on Camp Grayling leased lands, though the camp is consulted for compatibility with military operations. In accordance with Camp Grayling Regulation 200-1, trees larger than 1 inch in diameter may not be cut or damaged without permission from the Department of Facility Engineering.

# WHO DO I CONTACT FOR MORE INFORMATION?

**Tree Buffers**: Contact Camp Grayling or the Michigan DNR to learn the best ways to buffer noise on your property using vegetation. For information contact: <u>DNR-Forestry@Michigan.gov</u>

**Camp Grayling Flight Operations**: Contact Camp Grayling to learn about types of activities, altitudes, aircraft utilized, times, and purpose so you can be aware of where and when they will occur.

Camp Grayling Switch Board – 1-989-344-6200

#### ANNOUNCEMENTS

Camp Grayling has many platforms to keep the public informed. Camp Grayling does announcements on Public Radio Q100 on 94.5, 100.3 and 106.3. Camp Grayling does have a Facebook page that also does announcements listed below.

Camp Grayling Facebook Page: <u>https://www.facebook.com/campgraylingmi</u>

#### ADDITIONAL INFORMATION

Military ranges that have high concentrations of air activity and those that fire live munitions have a protected airspace above them referred to as an RA. These are established by the Federal Aviation Administration (FAA) to protect these activities from non-participating aircraft and to protect ground activities from falling debris, wayward munitions, or accidental aircraft failure. The RA over Camp Grayling JMTC contains two sections, referred to as R-4201A and R-4201B.

It is a condition of the establishment of these areas that they be over property owned by the military or the U.S. Government. Alternatively, small portions may be privately owned if a conditional use lease agreement has been established between the land owner and the government. The R-4201B, which overlies the impact area of the range, is over a large swath of land (approximately 24,000 acres) that is not owned by the government including the housing community in Guthrie Lakes.

This has allowed for private residences to be built very close to the range and noise-causing military training activities; too close for any reasonable degree of noise dissipation from those activities with little terrain or vegetation in between to dampen or reduce shockwave vibration.

Guthrie Lakes resides within the noise contour 70 dB day/night average sound level (ADNL). Housing is typically restricted to areas registering below 65 ADNL. The range and the impact areas are well-established and necessary functions of the range and military training



activities and are impractical to relocate. It is unclear how these incompatible functions came to be located in such close proximity. Yet, both exist and both are likely to remain. The only solution to reduce the impact is sound mitigation.

This information is provided by the Camp Grayling Community Council. For more information, please see the following website:

https://www.nemimilitarycommunity.org/grayling.asp

