Finding of No Significant Impact

Finding of No Significant Impact (FONSI) for the Proposed Airfield Seizure Exercises at Marine Corps Air Station (MCAS) Beaufort, South Carolina

Pursuant to the National Environmental Policy Act (NEPA) of 1969 (codified at 42 U.S.C. 4321 et seq.), Council on Environmental Quality (CEQ) Regulations as contained in 40 Code of Federal Regulations (CFR) Parts 1500-1508 dtd 16 July 2020 (effective 14 September 2020), Secretary of the Navy Memorandum "Implementation of Revised CEQ NEPA Regulations" dtd 10 September 2020, Department of Navy Regulations for Implementing NEPA (32 CFR part 775), Marine Corps Order 5090.2, and the Marine Corps NEPA Manual, MCAS Beaufort gives notice that an Environmental Assessment (EA) has been prepared and that an Environmental Impact Statement is not required for the airfield seizure exercises at MCAS Beaufort.

The EA evaluates the impacts of the airfield seizure exercises at MCAS Beaufort and is included herein. Based on the analyses conducted, MCAS Beaufort finds that implementing the proposed action will not significantly impact the environment. For this reason, the proposed action does not required the preparation of an Environmental Impact Statement.

06 Nov 2020
Date

Karl R. Arbogast
Commanding Officer
MCAS Beaufort

Environmental Assessment for the Airfield Seizure Exercises at MCAS Beaufort

November 2020

1.0 Purpose, Need, and Description of the Proposed Action

1.1 Introduction

The United States Marine Corps has prepared this Environmental Assessment (EA) for the proposed airfield seizure exercises at Marine Corps Air Station (MCAS) Beaufort in compliance with the National Environmental Policy Act (NEPA) of 1969 (codified at 42 U.S.C. 4321 et seq.), Council on Environmental Quality (CEQ) Regulations as contained in 40 Code of Federal Regulations (CFR) Parts 1500-1508 dtd 16 July 2020 (effective 14 September 2020), Secretary of the Navy Memorandum "Implementation of Revised CEQ NEPA Regulations" dtd 10 September 2020, Department of Navy Regulations for Implementing NEPA (32 CFR part 775), Marine Corps Order 5090.2, and the Marine Corps NEPA Manual. This EA is focused on those issues and resources relevant to this proposed action, will evaluate the potential environmental impacts of the proposed action, and will assist the decision maker in determining if the proposed action (1) would not significantly impact the human environmental and a Finding of No Significant Impact is warranted or (2) would have a potentially significant environmental impact and an Environmental Impact Statement is warranted.

1.2 Purpose and Need for the Proposed Action

The 75th Ranger Regiment is the Army's premier large-scale special operations force. Three pillars make up the Ranger mission: special operations raids, forcible entry operations, and special reconnaissance. The need for the proposed action is to meet the requirement of Regimental Training Circular 350-6, which requires ranger battalions to be proficient in airfield seizures (a forcible entry operation) and maintain this proficiency on an annual basis. The purpose of the proposed action is to develop the physical skills, ability, and knowledge to efficiently accomplish real world airfield seizure missions without loss of life or serious casualties, as well as build unit cohesion and teamwork that are integral to combat survival.

1.3 Proposed Action

MCAS Beaufort proposes the 75th Ranger Regiment would conduct airfield seizure exercises at MCAS Beaufort. Airfield seizure operations are used to take over and secure key airfield facilities belonging to an opposing force in order to receive follow-on friendly forces and support friendly force operations. For the 75th Ranger Regiment, the airfield seizure exercises would take place on two nights from approximately 2300 to 0700 and involve up to 600 Rangers flying to the objective area (i.e. MCAS Beaufort's airfield) via fixed-wing (up to 15 C-17s, C-130s, and KC-135s) and/or rotary aircraft (up to 10 CH/MH-47s, CV/MV-22s, and U-28s). Upon arrival at the airfield, the Rangers will either conduct an airborne drop (static line para-drop) or an air-to-land operation (aircraft land and personnel offload). Included in the airborne drop would be equipment weighing approximately 700 pounds or less. This would take between 2-15 minutes. Once landing or offloading is complete, the aircraft would depart to holding areas away from the local area, and the Rangers would take actions simulating forcibly seizing the airfield from opposition forces. Up to 50 personnel would serve as opposition force role-players. Upon completion of the exercises, the aircraft would return, and the Rangers would load onto the aircraft and depart the area.

Seizure of the airfield would entail attacking and taking over key facilities. For the purposes of the exercises, the Hush House, LHD Deck tower, old bunker, and several temporary plywood structures would serve as key facilities (Figures 1-3). Dynamic breaching would take place at the old bunker and plywood structures. The dynamic breaching would not occur on the structures themselves, but on false doors, and would only occur once at each structure per night. Small "lock buster" breaching explosives would be utilized with a net explosive weight of 0.11 lbs. All explosives would be flown in and flown out each night of the exercises.

Up to 25 vehicles (Strikers, High Mobility Multipurpose Wheeled Vehicles, mini-bikes, and Utility Terrain Vehicles (UTV)) and 5 jersey barriers would be on the airfield as obstacles or for use by opposition forces (Figure 1). When not in use, this gear would be placed in the truck holding area at Building 1074 with 24 hour security. The exceptions would be the jersey barriers, which would be pulled off the runway and out of the way of normal flight operations.

Both the rangers and the opposition force would be employed with and utilize blank small arms rounds, dynamic breaching explosives (see description above), and pyrotechnics. Small arms ordinarily fire projectiles such as bullets and include guns, rifles, or shotguns up to .50 caliber (cal) in size. Examples include 5.56mm, 7.62mm, and .50 cal. Pyrotechnics are devices that use chemical reactions to produce heat, light, gas, smoke, and/or sound; they are not explosive. Examples include smoke grenades, signal illuminants, artillery simulator, booby trap whistle simulator, or hand grenade simulator. They are utilized to simulate battlefield noises and effects or as signaling devices. Up to 175,000 blank small arm rounds and 350 pyrotechnics would be utilized, and all expended munitions would be cleaned up and taken out at the completion of the exercises.

Rangers would conduct reconnaissance and surveillance operations via personnel and Unmanned Aerial Systems (UAS). Up to seven (7) UAS (M2E Mavic, Puma AE RQ-20B, and R-80 Sky Raiders) would be utilized in order to obtain information about the activities of the opposition forces. The Federal Aviation Administration has separately approved these activities. All UAS use would avoid sensitive areas of MCAS Beaufort and would be de-conflicted with fixed-wing and rotary-wing aircraft.

Two Forward Arming and Refueling Points (FARP) would be established and utilized. A FARP is a secure area where aircraft and vehicles can quickly and safely refuel. For the purposes of these exercises, fuel would be transferred directly from a C-130 via hose to other aircraft. Up to a total of 15,000 gallons of Jet-A fuel would be transferred taking approximately 15-20 minutes per aircraft. Each FARP would have a self-contained spill kit.

1.4 No-Action Alternative

The No-Action Alternative would not implement the proposed action. The proposed airfield seizure exercises at MCAS Beaufort would not take place. The Rangers would be unable to use the site to meet training requirements that verify the capability of Rangers to accomplish assigned missions in the interest of national security. Therefore, no new activity affecting the existing environment would occur. The no action alternative provides baseline conditions against which the proposed action can be compared.

1.5 Resource Areas Eliminated

To the extent practicable, analyses of the various resources presented in Chapters 2 and 3 of this EA are streamlined based on potential impacts needing analyses. As previously noted, the focus of this EA is on the potential environmental impacts associated with the proposed airfield seizure exercises at MCAS Beaufort. As such, and consistent with 40 CFR Parts 1500-1508 dtd 16 July 2020 (effective 14 September 2020), the following resources are not analyzed because the proposed action either has no potential to affect them or the potential impacts would be negligible.

Utilities and Infrastructure: Implementation of the proposed action would not require electrical, telecommunications, water, or wastewater alternations, tie-ins, construction, or upgrades. If a situation develops during a drop that requires shutting off electrical power, such power loss would be temporary and last only as long as necessary to correct the situation. However, due to the location of the drop zone and the location of local power lines, this is highly unlikely and impacts would be negligible. Therefore, Utilities and Infrastructure is not analyzed in this EA.

Socioeconomics: Implementation of the proposed action would not change the local population, housing, or economic activity. If any noticeable impact, it would be a minor positive impact to the local area since approximately 50 Rangers would be staying in local hotels and eating in local establishments for approximately a week. Therefore, Socioeconomics is not analyzed in this EA.

Land Use and Recreation: Implementation of the proposed action would not change any land use designations or remove/alter any identified recreation areas from their current state. Therefore, Land Use and Recreation are not analyzed in this EA.

Transportation and Traffic: Implementation of the proposed action would not result in changes to traffic patterns, road usage, or traffic frequency. Only approximately 54 personnel will be sent as an advance team and will stay in local hotels. The rest of the personnel involved in this exercise will arrive and depart via aircraft as part of the airfield seizure exercises. Due to COVID-19 reducing the number of tourist in the area, as well as two squadrons being deployed, this amount of personnel is significantly less than normal for the area. Therefore, Transportation and Traffic are not analyzed in this EA.

Air Quality: Implementation of the proposed action would not alter air emissions at the installation or the air quality in the region. Sources of air pollution would be minimal and limited to the aircraft and vehicles utilized as part of the exercises, which take place only on two nights. This air pollution is well below what routinely occurs at the airfield and previously analyzed in the 2010 Marine Corps F-35B East Coast Basing Environmental Impact Statement. Therefore, Air Quality is not analyzed in this EA.

Biological Resources: Implementation of the proposed action would not alter biological resources. Impacts generated from aircraft and vehicles is well below what routinely occurs at the airfield and previously analyzed in the 2010 Marine Corps F-35B East Coast Basing Environmental Impact Statement. The airfield area on MCAS Beaufort has been previously disturbed, and there is little to no undisturbed habitat. Additionally, there would be no digging, filling, draining, dredging, damming, impounding, changing the grade or elevation, impairing the flow or circulation of waters, reducing the reach of waters, and no other discharge or activity

that would impact habitat located on MCAS Beaufort. Finally, Bird/wildlife Aircraft Strike Hazard (BASH) management incorporates the use of impulsive noise. So animals most likely are habituated and would not be startled by its use, resulting in negligible impacts. Therefore, Biological Resources are not analyzed in this EA.

Cultural Resources: Implementation of the proposed action would not affect cultural resources. No digging is occurring, and all activities are taking place on the main airfield where the ground is previously disturbed. Additionally, any dynamic breaching, which can cause vibrations, is occurring between 1,300 to 1,500 feet away from the closest cultural resource sites. Additionally, these cultural resource sites are between 750 to 1,500 feet outside the dynamic breaching impact zones. Therefore, Cultural Resources is not analyzed in this EA.

Geology and Soils: Implementation of the proposed action would not alter the soils. The airfield area on MCAS Beaufort has been previously disturbed, and there are little to no undisturbed soils. Therefore, Geology and Soils are not analyzed in this EA.

Vegetation: Implementation of the proposed action would not alter vegetation. There will be no clearing, burning, or destroying of trees and other vegetation. Operation of vehicles would occur mainly on pavement or hard surfaces. The mini-bikes and UTVs may detour off-road during the exercises, but it would be infrequent and consistent with the operation of the vehicles and other routine airfield vehicle operations. Additionally, plywood structures may temporarily mat vegetation, but the nature of the matting would be consistent with routine operations and vegetation control measures. Finally, for both the plywood structures and off-road use, the airfield area on MCAS Beaufort has been previously disturbed, and there is little to no undisturbed vegetation. Therefore, Vegetation is not analyzed in this EA.

Water Resources: Implementation of the proposed action would not alter wetlands, groundwater, or the 100-year floodplain. There would be no filling, draining, dredging, damming, impounding, changing the grade or elevation, impairing the flow or circulation of waters, reducing the reach of waters, and no other discharge or activity requiring a permit under applicable clean water or water pollution control laws and regulations. Any movement of personnel (walking or on mini-bikes or UTVs) through wetlands would be minimal and cause negligible impacts. Movement through wetlands would provide indications/evidence of the Rangers and alert opposing forces to their presence. This would be counter to the exercise objectives, which is to surprise and seize the airfield from opposing forces. Additionally, the impact radius of the bunker and LHD breaching sites are not located within any wetlands. Finally, any impacts from the FARPs to wetlands and surface waters would be minimal and cause negligible impacts. Spills are rare and would be of minimal amounts. Any FARPs will have a self-contained spill kit for up to 25 gallons and are located in areas that don't flow into local surface waters or wetlands. Therefore, Water Resources are not analyzed in this EA.

Safety: Implementation of the proposed action would not introduce any new safety risks or hazards to the public. Airfield operations would be consistent with or less than those routinely occurring at the airfield and previously analyzed in the 2010 Marine Corps F-35B East Coast Basing Environmental Impact Statement. Impact areas (Figure 4) for the Bunker and LHD breaching do not go off base. Therefore, Safety is not analyzed in this EA.

Environmental Justice and Protection of Children: Implementation of the proposed action would not have a disproportionately high and adverse human health or environmental effects on minority and low-income populations and children. Airfield operations would be no different than those that occur at the airfield and previously analyzed in the 2010 Marine Corps F-35B East Coast Basing Environmental Impact Statement. The sound of blank ammunition, dynamic breaching, and pyrotechnics may result in some members of the public being startled or awoken at night. However, impacts would not have a disproportionately high and adverse human health or environmental effects on minority and low-income populations and children given that (1) MCAS Beaufort would give the public multiple notices starting a week out from the first exercise as part of the overall public outreach plan, (2) the exercises would only take place on two nights, (3) dynamic breaching impact areas do not go off-base (Figure 4), and (4) populations off-base that may be impacted are not just minority or low-income, or specifically children. Therefore, Environmental Justice and Protection of Children are not analyzed in this EA.

Coastal Zone Management: Implementation of the proposed action would not affect the state coastal zone. In accordance with Section 307 of the Coastal Zone Management Act, federal actions, within and outside the coastal zone, which have reasonably foreseeable effects on any coastal use (land or water) or natural resource of the coastal zone, must be consistent with the enforceable policies of a state's federally approved coastal management program and require a consistency determination. Impacts generated from aircraft and vehicles is well below what routinely occurs at the airfield and previously analyzed in the 2010 Marine Corps F-35B East Coast Basing Environmental Impact Statement. The airfield area on MCAS Beaufort has been previously disturbed, and there is little to no undisturbed habitat. Additionally, there would be no digging, filling, draining, dredging, damming, impounding, changing the grade or elevation, impairing the flow or circulation of waters, reducing the reach of waters, and no other discharge or activity that would impact habitat located on MCAS Beaufort. Additionally, land disturbing activities would be less than 0.5 acres. Therefore, Coastal Zone Management is not analyzed in this EA.

2.0 Existing Environment

2.1 Noise

The only noise impacts analyzed in this EA are from blank ammunition, dynamic breaching, and pyrotechnics. Implementation of the proposed action would not alter aircraft noise in a manner different than that previously analyzed in the 2010 Marine Corps F-35B East Coast Basing Environmental Impact Statement. Therefore, in order to streamline this EA, reduce redundancies, and focus analyses to where there may be potential impacts, aircraft noise will not be analyzed further in this document. Additionally, noise from training vehicles is typically only noticeable in the immediate vicinity of the source. Since vehicles would only be on the main airfield, they would not cause any concerns to the surrounding community. Therefore, vehicle-related noise is not analyzed in this EA.

Noise is considered to be any unwanted sound that interferes with normal activities or otherwise diminishes the quality of the environment. Noise is characterized as continuous noise or impulsive noise. Continuous noise is generated by aircraft and vehicles. Impulsive noise is generated by ammunition and explosives. The dominate noise at MCAS Beaufort is aircraft noise; though it does have some impulsive noise from Explosive Ordnance Disposal (EOD)

detonations, the pistol range, hunting, and BASH staff's use of pyrotechnics and small arms. EOD detonations typically take place on the EOD range, located on the northwest side of MCAS Beaufort. The pistol range is located on the east side of MCAS Beaufort, hunting takes place in most areas outside the Level 2 restricted area, and BASH staff use pyrotechnics and small arms throughout MCAS Beaufort to include the airfield. Overall, impulsive noise is routine throughout MCAS Beaufort. Noise sensitive areas that may be impacted by noise are residential areas, schools, hospitals, and churches.

Detonation of explosive charges can also cause structures to vibrate. Occupants often perceive this vibration as the rattling of loose windows and objects on shelves, and sometimes the building itself. There are two types of vibration: vibration that is transmitted through the ground (i.e., ground-borne vibration) and vibration that is transmitted through the air (i.e., airborne vibration).

Ground-borne vibration originates from an explosive detonation that radiates vibration energy into the soil. The face of the nearest building foundation or underground wall responds to the incident ground-borne vibration and propagates the waves throughout the building. The resulting ground-borne vibration is a function of the magnitude of the energy source, distance from the source, response blasting-specific characteristics of the transmitting media (rock/soil), and response characteristics of the structural element (building). Vibration studies of coal mine detonations indicate that ground-borne vibration dominates structure vibration in the near field, while airborne vibration dominates at greater distances. For example, for a 100 lb charge, the ground-borne vibration is the dominant cause of building vibration if the building is located less than 500 ft from the detonation point. At distances greater than 500 ft, the airborne sound wave is the dominant cause of the vibration.

Most of the studies of airborne vibration and the damage guidelines derived from these studies used sonic booms as the vibration source. The vibration from open area explosive detonations and large-caliber weapon firing is similar to the vibration from sonic booms. Structural shaking or window rattling by airborne vibration can annoy the occupants and potentially cause structural damage (e.g., broken glass and plaster cracks). However, the effects of airborne vibration dissipates the farther the vibration source is from an occupied building.

2.2 Hazardous Materials, Hazardous Constituents, and Hazardous Waste

Hazardous Materials

Hazardous materials are broadly defined as those materials with clearly hazardous properties that are in general use in commercial, military, or industrial applications. Hazardous materials are chemical substances that pose a substantial threat to human health or the environment. In general, these materials pose hazards because of their quantity, concentration, physical, or chemical characteristics. Hazardous materials are present at MCAS Beaufort as fuel, lubricants, munitions, and cleaning and maintenance materials. Hazardous materials that are present during these training exercises are mainly munitions, explosives, and fuel.

Hazardous Constituents

Hazardous constituents generally can be defined as hazardous materials present at low concentrations in a generally non-hazardous matrix, such that their hazardous properties do not produce acute effects. Component hazardous materials are considered hazardous constituents.

Components that contain hazardous constituents include propellants, batteries, flares, igniters, jet fuel, diesel fuel, hydraulic fluid, and explosives. Equipment used in training does not intentionally release hazardous constituents into the environment. However, tactical equipment may produce waste streams that contain hazardous constituents.

Expended training material such as bombs, targets, flares, and explosive residues can release contaminants to the environment upon use or leak or leach small amounts of toxic substances as they degrade and decompose. The hazardous constituents that may be released upon use are generally referred to as energetic chemicals and are most commonly found in the explosive, propellant, and pyrotechnic elements of munitions. These constituents may also leak from explosives and pyrotechnics that do not detonate as intended.

The constituent most associated with these exercises is lead from blank small arms rounds. When fired, they release small amounts of lead into the air. However, the properties of metallic lead generally have low chemical reactivity and low solubility in water. Additionally, lead is relatively inactive in the environment under most ambient or everyday conditions.

Hazardous Waste Management

A hazardous waste may be a solid, liquid, or semi-solid, or contain gaseous material that alone or in combination may: 1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or 2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed, or otherwise managed.

The Resource Conservation and Recovery Act (RCRA), codified in 42 USC § 6901 et seq., regulates management of solid waste and hazardous waste. The US Environmental Protection Agency Military Munitions Rule clarifies when conventional and chemical military munitions become a hazardous waste under RCRA. Military munitions are not considered hazardous waste under two conditions stated in the Military Munitions Rule and the DoD Manual 4715.26 “DoD Military Munitions Rule Implementation Procedures, change 2 (18 June 2019). These conditions cover virtually all the uses of munitions and targets. Specifically, munitions are not considered hazardous waste when:

- used for their intended purpose, including training of military personnel and explosive emergency response specialists, research and development activities, and when recovered, collected, and destroyed during range clearance events; or
- unused and being repaired, reused, recycled, reclaimed, disassembled, reconfigured, or subjected to other material recovery activities.

Marine Corps Order 5090.2, Volume 9 provides information on management of hazardous waste. Hazardous waste and materials used or generated are handled, stored, and disposed of in accordance with the procedures mandated in these documents.

3.0 Environmental Consequences

3.1 Noise

3.1.1. Proposed Action

Noise from blank ammunition, dynamic breaching explosives, and pyrotechnics is considered impulsive noise. While blank ammunition, dynamic breaching explosives, and pyrotechnics are used on MCAS Beaufort, the timing of its use during the airfield seizures exercises is atypical (i.e. used in the middle of the night). This may result in some members of the public being startled or awoken at night. However, MCAS Beaufort would give the public multiple notices starting a week out from the first exercise, and the exercises would only take place on two nights. Additionally, since the exercises would take place from 2300-0530 (with cleanup from 0530-0700), school would not be in session and church would not be having services. It is anticipated the dynamic breaching explosions would not cause any vibrations to non-military structures. The dynamic breaching explosives for this exercise are at just over $1/10^{th}$ of a pound; approximately $1/1000^{th}$ of the strength of the reference charge in Section 2.1., which only causes vibrations up to 500 ft away. Additionally, the nearest non-military structure is over 1,600 feet away. Therefore, any impacts due to noise would be minimal and would not result in a significant impact.

3.1.2. No Action Alternative

Under the no action alternative, the proposed action would not be implemented. Thus, the baseline conditions would remain unchanged.

3.2 Hazardous Materials, Hazardous Constituents, and Hazardous Waste

3.2.1. Proposed Action

Little to no releases of hazardous materials, constituents, or waste into the environment and no unplanned exposures of personnel to these materials, constituents, or waste are anticipated. All of the small arms weapons would be utilizing blanks in lieu of live ammunition, and all brass would be recovered at the end of the exercise and properly disposed of off-site. This would result in nominal levels of metals from ammunition. The remaining munitions would consist of practice charges such as booby trap simulators, smoke charges, practice grenades, and illuminant signals as well as the breaching explosives, which would also be recovered at the end of the exercise and properly disposed of off-site. FARP refueling methods have procedures to reduce the probability of a fuel spill. Though, if a spill should occur, each FARP has a spill containment kit and procedures to recover the spilled fuel. Additionally, MCAS Beaufort's spill response team would be on stand-by if needed. Based on this, hazardous materials, constituents, and waste will not cause an unacceptable risk to human health and the environment. Therefore, any impacts would be minimal and would not result in a significant impact.

3.2.2. No Action Alternative

Under the no action alternative, the proposed action would not be implemented. Thus, the baseline conditions would remain unchanged.

4.0 List of Agencies and Persons Consulted

The following agencies and persons were consulted in the development of this EA.

4.1 1st Ranger Battalion, 75th Ranger Regiment

Brian Blair	Deputy Operations Officer
1stLT Timothy Gaddis	Logistics Planner
Terry Heflin	LNO, Exercise Planner
MSG Michael Adame	LNO NCO
Tracy Bailey	Deputy Public Affairs Officer

4.2 Marine Corps Air Station Beaufort

Troy Ward	Director S-3/5/7
Kim Fleming	Deputy Director S-3/5/7; Director S-7
Bruce Green	Airfield Manager
Chris Vaigneur	Natural Resources and Environmental Affairs Officer
Mark Mehrer	Deputy S-4
Del Tingley	Explosives Safety Officer
Bryan Corns	Range Safety Officer
Chris Seidl	F-35 Site Security Manager (Contractor)
Capt Scott Carter	EOD Officer in Charge
1stLt Kevin Buss	Communications, Strategy, and Operations Director
Mary Ryan Krieger	Deputy Community Plans and Liaison Officer
Jim Landis	Eastern Area Counsels Office

FIGURE 1

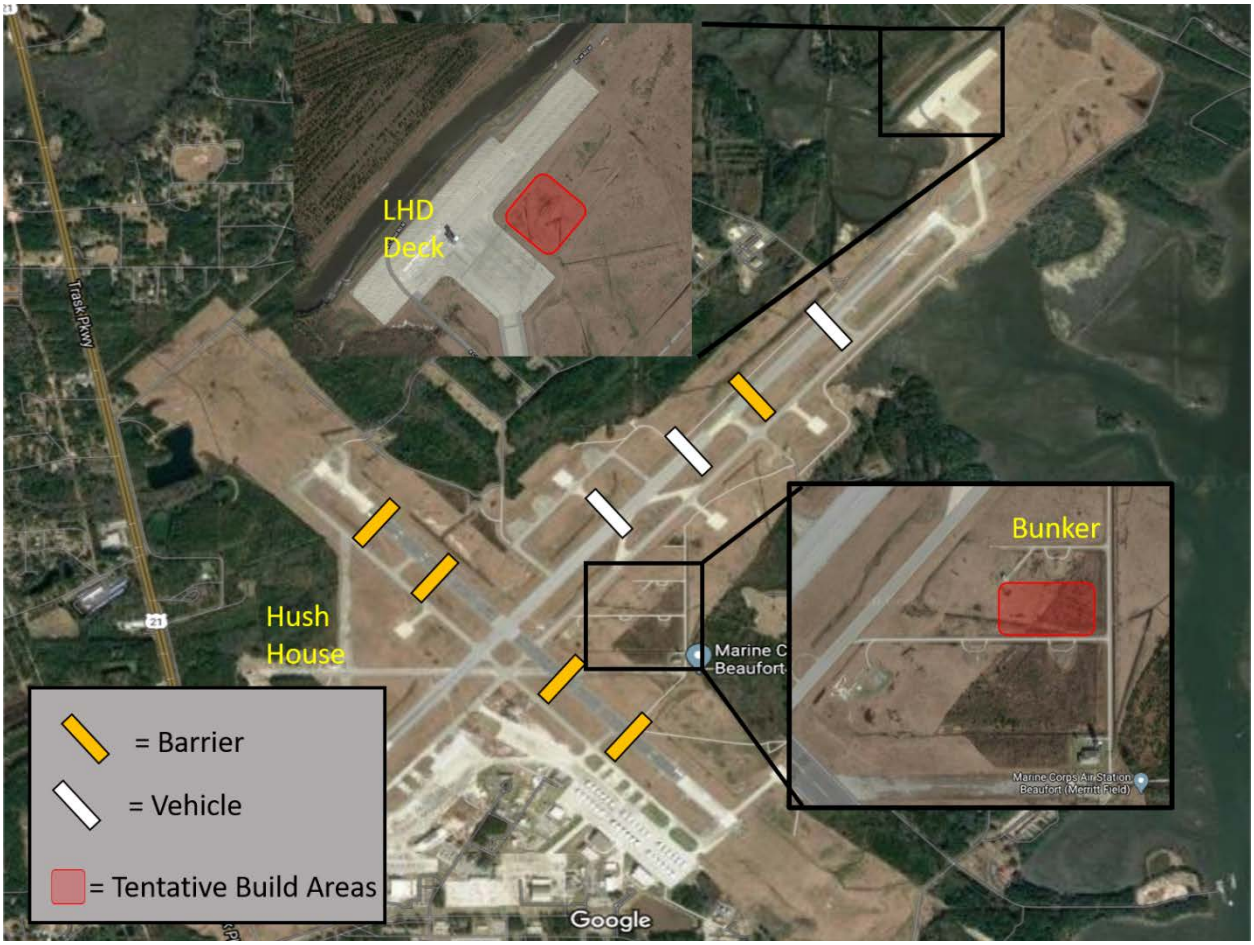
LHD
Deck
Bunker
Hush
House
= Barrier
= Vehicle
= Tentative Build Areas
Google

FIGURE 2

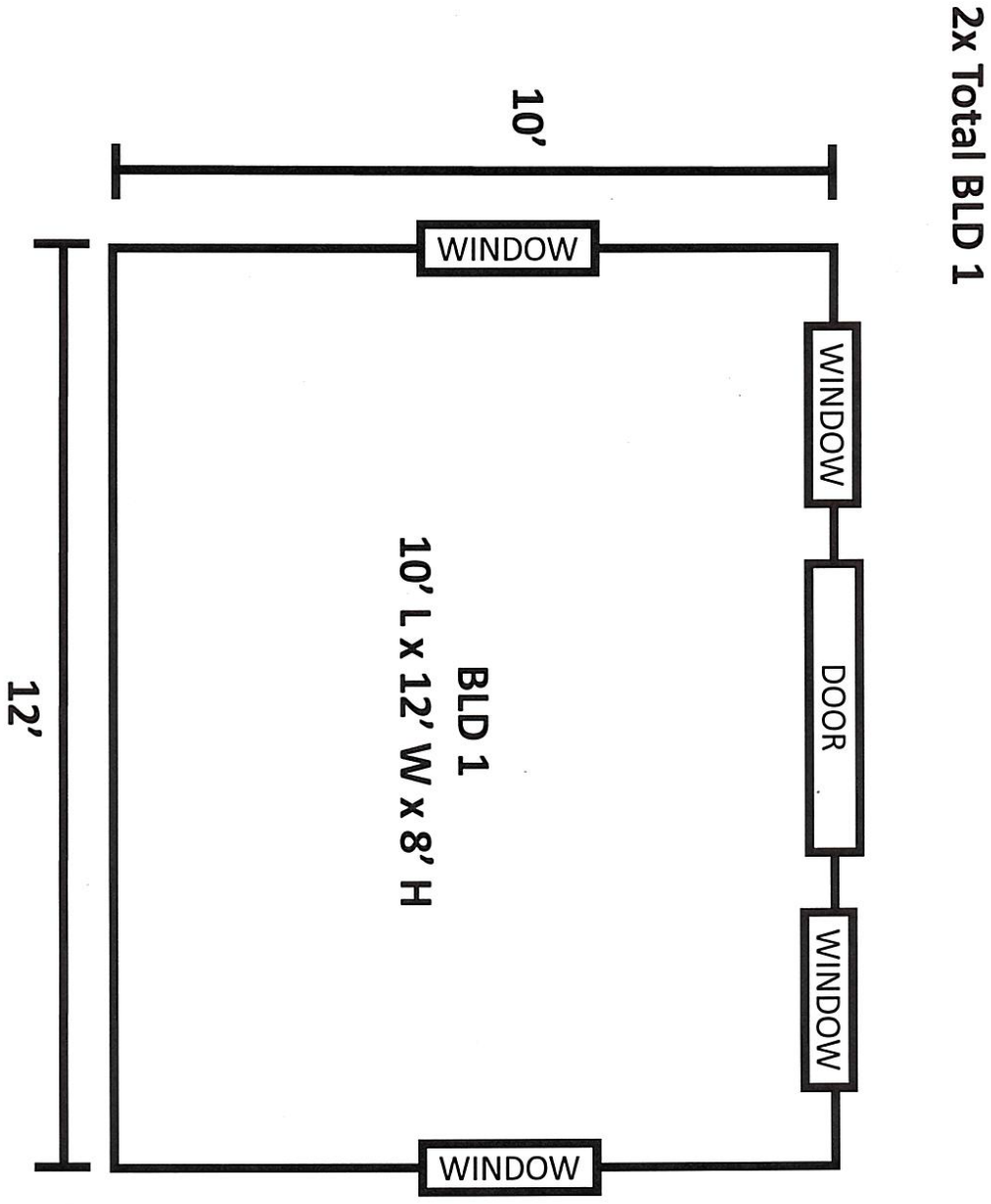
2x Total BLD 1
10'
WINDOW
WINDOW
DOOR
WINDOW
WINDOW
12'
BLD 1
10' L x 12' W x 8' H

FIGURE 3

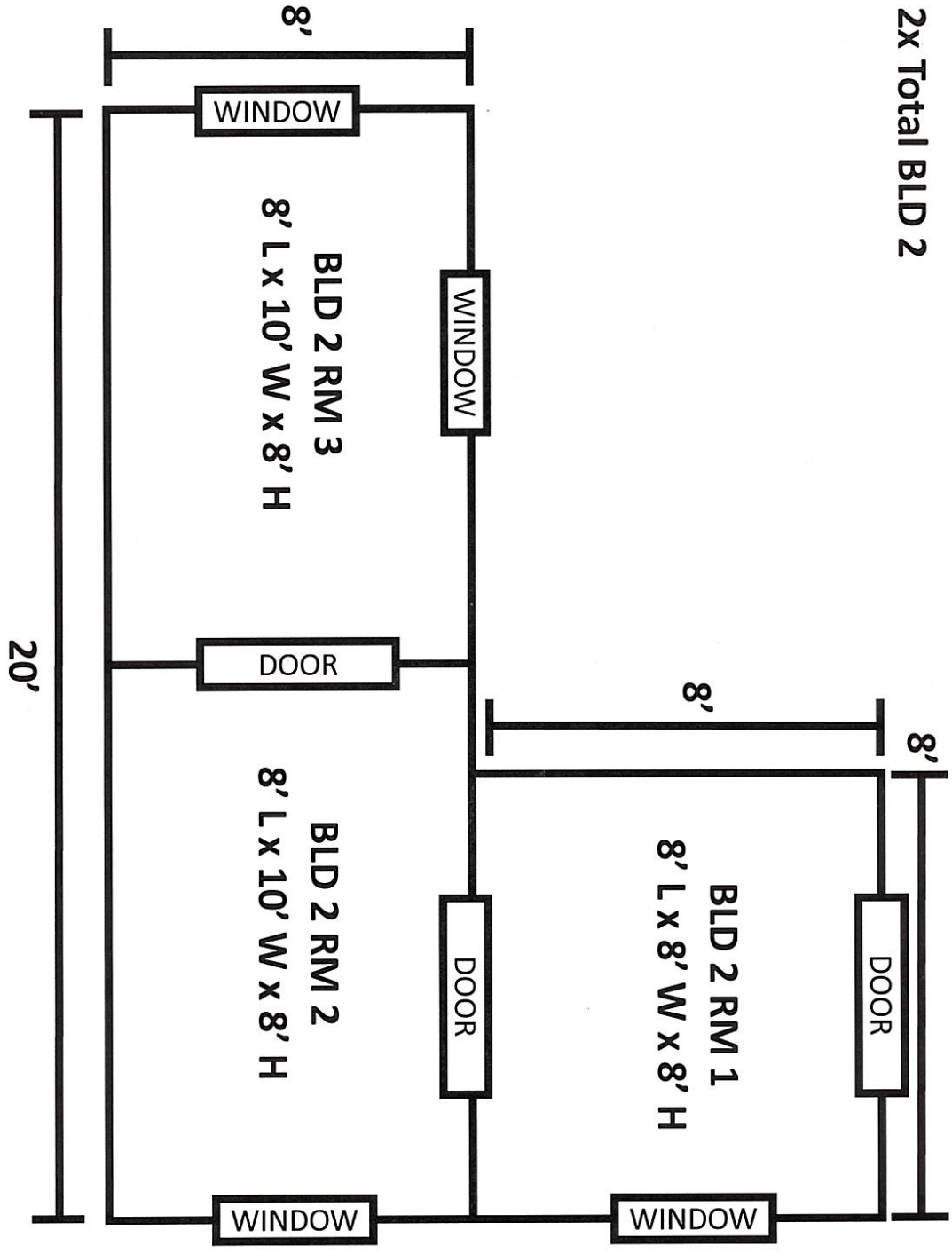
2x Total BLD 2
8'
WINDOW
BLD 2 RM 3
8' L x 10' W x 8' H
WINDOW
20'
DOOR
8'
8'
BLD 2 RM 2
8' L x 10' W x 8' H
DOOR
BLD 2 RM 1
8' L x 8' W x 8' H
DOOR
WINDOW
WINDOW

FIGURE 4

FOUO

Map Scale: 1:27,000
Layout Date: 10/08/2020

Explosive Training Range Tool (ETR)

Location Name: Ranger Blast 2

RMTK Build: 10.6.1.0.2
RMTK Build Date: 07/02/2019

Map Scale: 1:27,000	Layout Date:	Range Manager Signature Authority: Approving Authority: Bryan Corns	Date: Date:

Created By: Bryan Corns | Date: | Unit: TBR | Phone: 843-228-0074 | Email: bryan.corns@usmc.mil

Range Name:
Installation ID:
Range Officer: Bryan Corns
Location Name: Ranger Blast 2
Training Activity: Dynamic Breaching
Point (MGRS): 17SNR2794695973
Max NEW (lbs): 1.4
MFD (m): 112
Breaching/Directional Distance (m): 0
Impact Media: Other

Weapon Class:	Weapon:	DODIC - Ammunition:
Mines and Pyrotechnics	Charges	M456 - Cord, Det Type-1
Mines and Pyrotechnics	Charges	MN08 - Igniter,Blast Time Fuse M81

FOUO