

## All Environmental/Climate Conditions

- Follow work/rest guidance for water consumption.
- Use the buddy system. Personnel who have had previous heat/cold injuries are especially susceptible to new or more serious injuries.
- Be prepared for temperature changes at night; do not rest or sleep in tents or vehicles unless well ventilated to avoid potentially fatal carbon monoxide poisoning.
- Wear uniforms properly, and use unscented sun block (SPF 15 or higher), sunglasses, lip balm, and skin moisturizer.

## HEARING CONSERVATION

Exposure to high-intensity noise may cause hearing loss. It is important to use properly fitted hearing protection.

- The combat earplug (NSN 6515-01-466-2710) will protect against weapon fire while minimizing voice communication and combat sounds.
- An earplug carrying case (NSN 6515-01-100-1674) must also be provided at no charge with any preformed earplugs issued. The case can also be used for hand-formed earplugs.

Avoid noise or limit noise exposure time to only critical tasks.

## ENVIRONMENTAL RISKS

Carbon Monoxide (CO) Poisoning – Improper ventilation of engines and heaters can lead to CO poisoning. CO replaces oxygen in the body, causing headache, sleepiness, coma, and even death.

High Winds – Large amounts of airborne dust (sandstorms) are possible.

Flash Floods – The desert terrain does not have the capacity to absorb much water. Do not park, sleep or remain in wadis of ravines during wet weather.

## HAZARDOUS ANIMALS AND PLANTS

Venomous Reptiles – Well camouflaged rattlesnakes and brightly colored bearded lizards have potentially deadly venom. Seek urgent medical attention if bitten!  
Prevention – Do not handle *any* snake or lizard.

## HAZARDOUS ANIMALS AND PLANTS (Continued)

Scorpions, Tarantulas, Sac Spiders, Desert Recluse and Black Widow Spiders – These animals are capable of inflicting painful bites/stings or shedding irritating hairs. Prevention – Shake out boots/clothing/bedding. Seek medical attention if bitten/stung.

Solifugids, Millipedes and Centipedes – None of these animals contain deadly venom, but they are capable of inflicting painful bites or secreting fluids that can blister the skin.  
Prevention – Shake out boots/clothing/bedding. Seek medical attention if bitten/stung.

Africanized Honey Bees and Red Imported Fire Ants – These bees and ants will defend nests by stinging in great numbers.  
Prevention – Keep far from colonies, and do not disturb. Seek medical attention if bitten/stung.

Hazardous Plants – Some plants have stinging hairs or spines and leaf tips that are razor sharp. There are numerous toxic plants that can irritate the skin, lungs, and eyes if the plants are touched/burned. Poisoning can occur if plants are chewed/eaten.  
Prevention – Do not touch, chew, eat, or burn unfamiliar plants; wash contaminated skin/clothing after contact.

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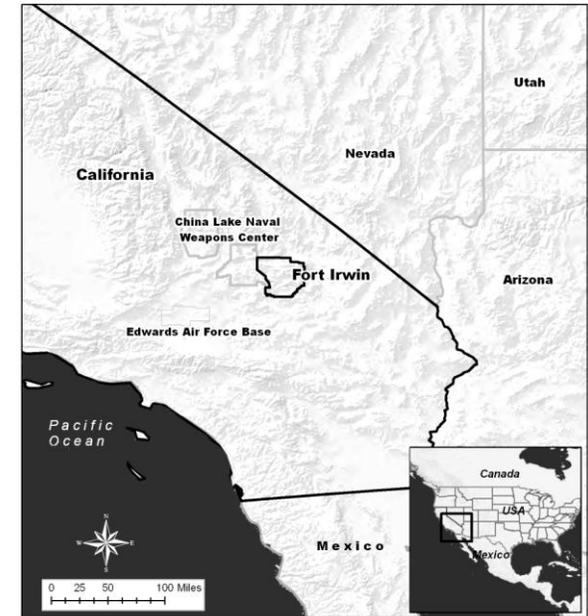
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## DEPLOYMENT HEALTH GUIDE: NATIONAL TRAINING CENTER FORT IRWIN, CALIFORNIA



This deployment health guide should be used in conjunction with GTA 08-05-062, Guide to Deployment Health, and is intended to provide information that can help reduce your risk of Disease and Non-battle Injuries (DNBI) when deployed. The health threat and countermeasure information is based on the most current data available from U.S. Department of Defense medical agencies at the time of production. In addition to the information in this guide, you should also receive force health protection, health threat, and preventive medicine countermeasures training/briefings prior to and, as required, throughout the length of your deployment.

## NATIONAL TRAINING CENTER OVERVIEW

Location – The National Training Center (NTC), Fort Irwin, California, is located in the heart of the Mojave Desert approximately 35 miles northeast of Barstow, California.

Climate – The climate is typical of the arid southwestern desert with prevailing clear skies, low humidity and gusty winds. Cold nights and cool days characterize the winter months (October–March). The summer months (April–September) are characterized by hot, dry, dusty days and warm nights. Most days in July and August exceed 100° F.

Rainfall – Rain is sparse.

Terrain – The entire NTC reservation encompasses more than 672,000 acres of training area. Broad valleys surrounded by rugged mountain peaks dominate the NTC. Elevations range from more than 6000 feet in the northeast corner to 1300 feet in the southeast corner.

Forces of Nature – High winds during the summer and winter can produce large amounts of airborne dust (sandstorms). High temperatures during the summer can pose a serious medical threat for heat-induced injuries.

## MILITARY VACCINE REQUIREMENTS

Normal requirements for military personnel apply:

- Tetanus-diphtheria if no booster within the past 10 years
- Hepatitis A
- Hepatitis B for those at risk for direct exposure to blood and body fluids
- Influenza (during flu season)

## INFECTIOUS DISEASES

### Vector-borne Diseases

Of greatest concern are:

Western equine encephalitis (WEE) – Small number of cases possible

- Threat year-round
- Transmission – dawn/dusk-biting mosquitoes

## INFECTIOUS DISEASES (Continued)

- Symptoms – high fever, headache, stupor, disorientation, coma, tremors, convulsions
- Hospitalization of 1-7 days likely; prolonged recovery or death possible

Others – Significant to rare numbers of cases could occur: St. Louis encephalitis (SLE) (mosquito-borne); Lyme disease (tick-borne).

Prevention – N,N-diethyl-meta-toluamide (DEET) on exposed skin; permethrin-treated uniforms and permethrin-treated bed nets

## Animal Contact Diseases

Hantavirus (Sin Nombre Virus) – Breathing airborne dust that is contaminated with infected rodent urine, feces or saliva; or broken skin coming in contact with contaminated particles

- Rare cases possible
- Threat year-round; poorly-ventilated, rodent-infested areas
- Symptoms – very severe: fever, headache, muscle aches, rapid respiratory distress; up to 50 percent fatality rate

Prevention – Exclude rodents from tents and buildings; store food and garbage in rodent-proof containers; do not sweep or vacuum rodent-contaminated areas; use a wet mop moistened with disinfectant; use an approved respirator when cleaning rodent-contaminated buildings.

## ENVIRONMENTAL CONDITIONS

### Hot Weather

- Maximize physical fitness and heat acclimatization prior to deployment, and maintain physical fitness after arrival. Full heat acclimatization takes 7–14 days of adequate physical exercise in the heat. Physical exercise should start slowly but increase in intensity and duration.
- Consume sufficient water to replace sweat losses, and follow drinking guidelines in the Work/Rest and Water Consumption Table. Do not consume more than 1.5 quarts of water per hour or 12 quarts per day.
- Monitor hydration status by noting color, frequency and volume of urine. Dark yellow urine and infrequent urination with reduced volume indicate need for increased hydration.

- Do not skip meals. Complete consumption of Meals-Ready-To-Eat (MREs) (including salt packets) will provide adequate salt intake. Additional salt supplementation is not appropriate unless directed by medical personnel.
- Protect yourself from exposure to sunlight and wind. Work and rest in the shade when possible, and construct shades/windcreens.
- To avoid hazards from sun, wind and insect exposure, do not loosen or remove clothing to improve ventilation.
- Seek immediate medical attention for heat cramps, exhaustion, or stroke.

Heat Cat	WBGT Index, °F	Easy Work		Moderate Work		Hard Work	
		Work/Rest (min)	Water Intake (Qt/H)	Work/Rest (min)	Water Intake (Qt/H)	Work/Rest (min)	Water Intake (Qt/H)
1	78° - 81.9°	NL	½	NL	¾	40/20	¾
2	82° - 84.9°	NL	¾	50/10	¾	30/30	1
3	85° - 87.9°	NL	¾	40/20	¾	30/30	1
4	88° - 89.9°	NL	¾	30/30	¾	20/40	1
5	> 90°	50/10 min	1	20/40	1	10/50	1

Easy Work = Walking hard surface 2.5 mph <30# load, Weapon maintenance, Marksmanship training  
 Moderate Work = Patrolling, Walking in sand 2.5 mph no load, Calisthenics  
 Hard Work = Walking in sand 2.5 mph with load, Field assaults

## Cold Weather

- Cover exposed skin because it is more likely to develop frostbite. Keep skin dry; avoid sweating.
- Remember **C-O-L-D**: Keep clothing **C**lean, avoid **O**verheating, wear clothing **L**oose and in layers, and keep clothing **D**ry.
- Several changes of socks are necessary to keep feet dry and reduce the risk of trench foot. Wear vapor barrier boots when the temperature is below 0° F.
- Consume adequate meals (work in cold weather can increase energy needs by 10-25 percent) and avoid dehydration. Warm, sweet drinks are useful for rewarming.
- Keep active. When possible, remain inside well-ventilated warming areas.
- Use the buddy system to frequently monitor signs of cold injury.
- Seek immediate medical attention for loss of sensitivity in any body part, mental slowness, or uncontrollable shivering.