

MEDICAL THREAT BRIEFING

JRTC
FORT POLK

Presenter's Name
Presenter's Command
Local Contact
Information

Prepared by:

U.S. Army Center for Health Promotion and Preventive Medicine
<http://usachppm.apgea.army.mil>

AGENDA

- Purpose
- Background
- Review of Guide to Staying Healthy
- Preparation for Deployment
- Deployment
- Post Deployment
- Summary
- Conclusion



PURPOSE

Inform Deploying Personnel
(Military and Civilian) of the
Potential Health Hazards and
the Individual Countermeasures
Necessary to Assure Personal
Safety and Health



BACKGROUND

- US Forces are fighting a war on terror. JRTC provides excellent training before entering the fight.
- Environmental, safety, and occupational health hazards are a potential medical threat to deployed personnel (even CONUS)



Historical accounts of wars, battles, and military training consistently relate that the greatest loss of forces was not caused by combat wounds - rather the majority of losses were the result of disease and non-battle injury (DNBI).



Louisiana Location Map

Where in the world is JRTC?

GUIDE TO STAYING HEALTHY

- Unfold YOUR *Deployment Health Guide*
- Personal Protective Measures (PPM) – Individual Countermeasures
- Reference Guide for this Briefing



This guide is for use by all active/reserve component military, civilian, retiree, and contractor personnel. Any individual who trains and prepares for, or participates in any type of military operation should keep and refer to this guide.

PREPARING TO DEPLOY

- Medical, Dental & Vision Screening (Soldier Readiness Processing)
- Prepare clothing and gear and personal hygiene items
- Immunizations

**SOLDIER HEALTHCARE
READINESS**

During medical screening, discuss prescribed medications with the examiner; obtain at least 45-day supply of medications

PREPARING TO DEPLOY

ADDITIONAL PACKING ITEMS:

- Cotton underwear (10 changes)
- Birth control supplies
- Personal Hygiene Products
- Anti-fungal cream/powder & shower shoes
- Insect repellent, sunscreen, eye and hearing protection, lip balm, skin lotion



If you need medications or hygiene items which may not be available through normal supply systems, obtain enough for the duration of the operation

PREPARING TO DEPLOY FEMALE CONSIDERATIONS

- Birth control pills
- Feminine Hygiene Products (non-deodorant tampons, sanitary napkins, panty liners; menstrual cramp reliever)
- Yeast infection medication (two courses of vaginal treatment)
- Portable Urinary Device
 - For use by female personnel to reduce time needed to urinate and resolve privacy issues when latrines are not available (convoys, field operations) NSN: 8530-01-470-2805

If using birth control pills, continue as prescribed to regulate menstrual cycles and avoid problems resulting from inconsistent use

MILITARY VACCINE RECOMMENDATIONS

- Tetanus-diphtheria (Td) if no booster within the past 10 years
- Hepatitis A
- Hepatitis B for those at risk with direct blood and body fluid exposures
- Influenza (during flu season)
- As directed



DEPLOYMENT HEALTH CARE

- Know where to seek health care when deployed
- May or may not be through same channels as your home station
- Maintain your health and seek care whenever an illness or injury occurs



FIELD SANITATION TEAM

- Field Sanitation Teams (FST) train unit personnel in Preventive Medicine Measures (PMM) and advise the commander and unit leaders on implementation of unit-level PMM.
- Know who the members of your Field Sanitation Team are PRIOR to deployment
- The FST can assist in preventing medical threats to your health
- Deploy with all FST equipment



Failure to apply PMM increases the risk of mission failure

PERSONAL PROTECTIVE MEASURES

- Wash hands frequently
- Do not rub eyes or inside of nose with bare finger(s)
- Bathe/shower regularly (field expedients will do); use unscented products
- Wear shower shoes to prevent athlete's foot
- Dry thoroughly after showering
- Sleep head-to-toe if billeted in common areas
- Wear clean, dry uniforms; change socks daily and uniform at least weekly
- Do not wear nylon or silk undergarments; cotton undergarments are more absorbent and allow the skin to dry
- Seek prompt medical care if problem exists



SEXUAL ACTIVITY

- Abstinence is the only 100% effective method for preventing sexually transmitted diseases
- Choose an effective method of birth control
 - Always use condoms during sex – regardless of other measures you choose. Using latex condoms during each sexual encounter provides improved (not 100%) protection against STD's and pregnancy.



ORAL HEALTH

- Deploy with:
 - Toothbrush
 - Dental Floss
 - Fluoride Toothpaste
- Brush twice-daily
 - Daily in difficult tactical environments
- Floss daily
- Seek medical attention at the onset of any dental problems



NUTRITION

- Drink fluids regularly (hourly fluid intake should not exceed 1.5 quarts, daily fluid intake should not exceed 12 quarts)
- Maintain weight; do not avoid food or attempt weight loss during a deployment
- Work in cold weather can increase energy needs by 10-25%



SPIRITUAL HEALTH

- Maintain personal prayer/meditation
- Obtain and read wholesome religious/spiritual literature
- Attend religious/spiritual group discussions/studies
- Process anger, fear, anxiety & guilt through personal & group spiritual/religious activities
- Keep in touch with spiritual advisors/chaplains



STRESS



- Operational stressors
- Different types and intensities
- Recognize the symptoms of depression
- Seek or encourage help
- Take steps to reduce operational stress

Stress can be intensified for personnel who are exposed to or observe human suffering and/or death

IMPROVE RESISTANCE TO STRESS

- Fear and physical signs or symptoms of stress are normal reactions before and during combat or other dangerous/life-threatening situations
- Talk about what is happening with your buddies
- Learn ways to relax quickly
- Quickly integrate new replacements
- If you must join a new group, be active in establishing friendships
- Give each other moral support
- Care for your buddies and work together





HEARING CONSERVATION

- Loud noise causes permanent hearing loss

COUNTERMEASURES

- Have your hearing protection with you at all times and use it
- Be sure your ear plugs, noise muffs or helmets fit properly and are in good condition
- Avoid noise or limit time around noise to only critical tasks



**Combat Arms
Earplug**

**NSN 6515-01-
466-2710**

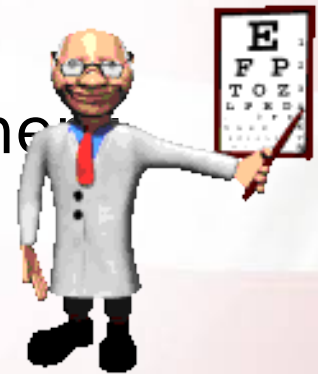
**If you have to raise your voice to be understood,
it is too noisy.
Put on hearing protection.**

VISION CONSERVATION

- **Preventive Measures and Eye Protection**
 - Contact lens use is prohibited for use in environments where exposure to smoke, toxic chemical vapors, sand, or dust occurs
 - If required, maintain 2 pair of glasses and 1 protective mask insert
 - Use eye protection when in any potentially eye hazardous environment
 - Safety goggles or spectacles with side shields*
 - Chemical splash goggles*



*(ANSI Z87.1 approved)



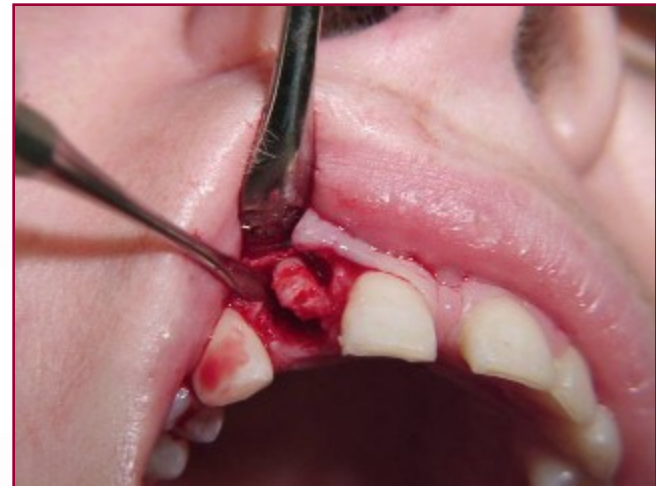
**Vision Ready is
Mission Ready!**

MOUTH GUARDS

Use This



Lose These

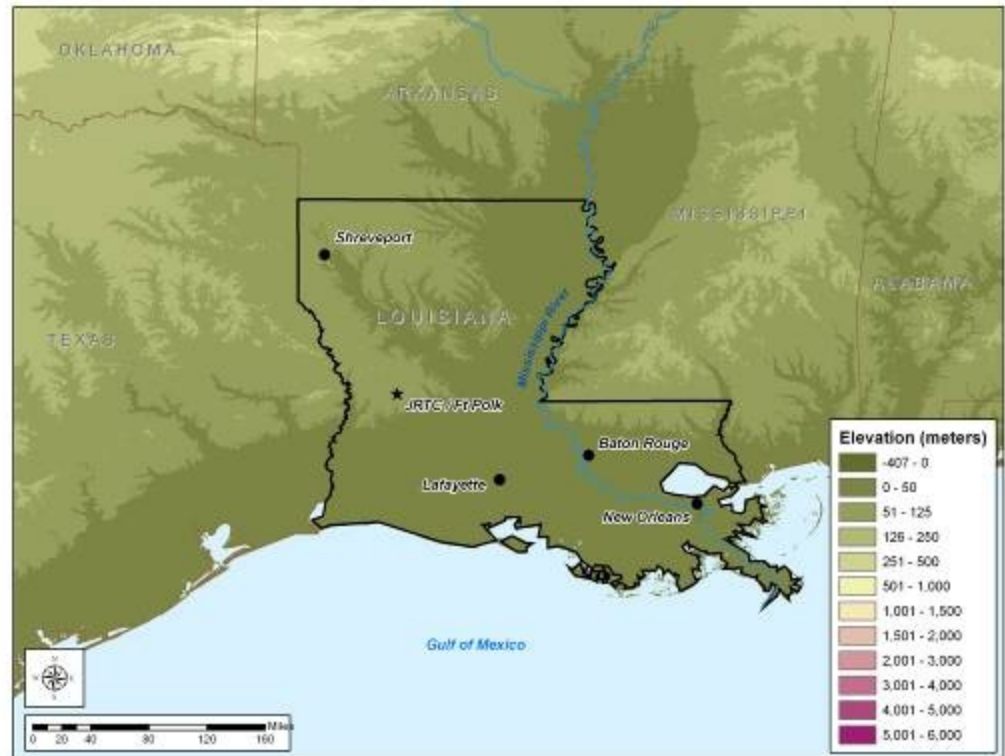


OR

PHYSICAL ENVIRONMENT

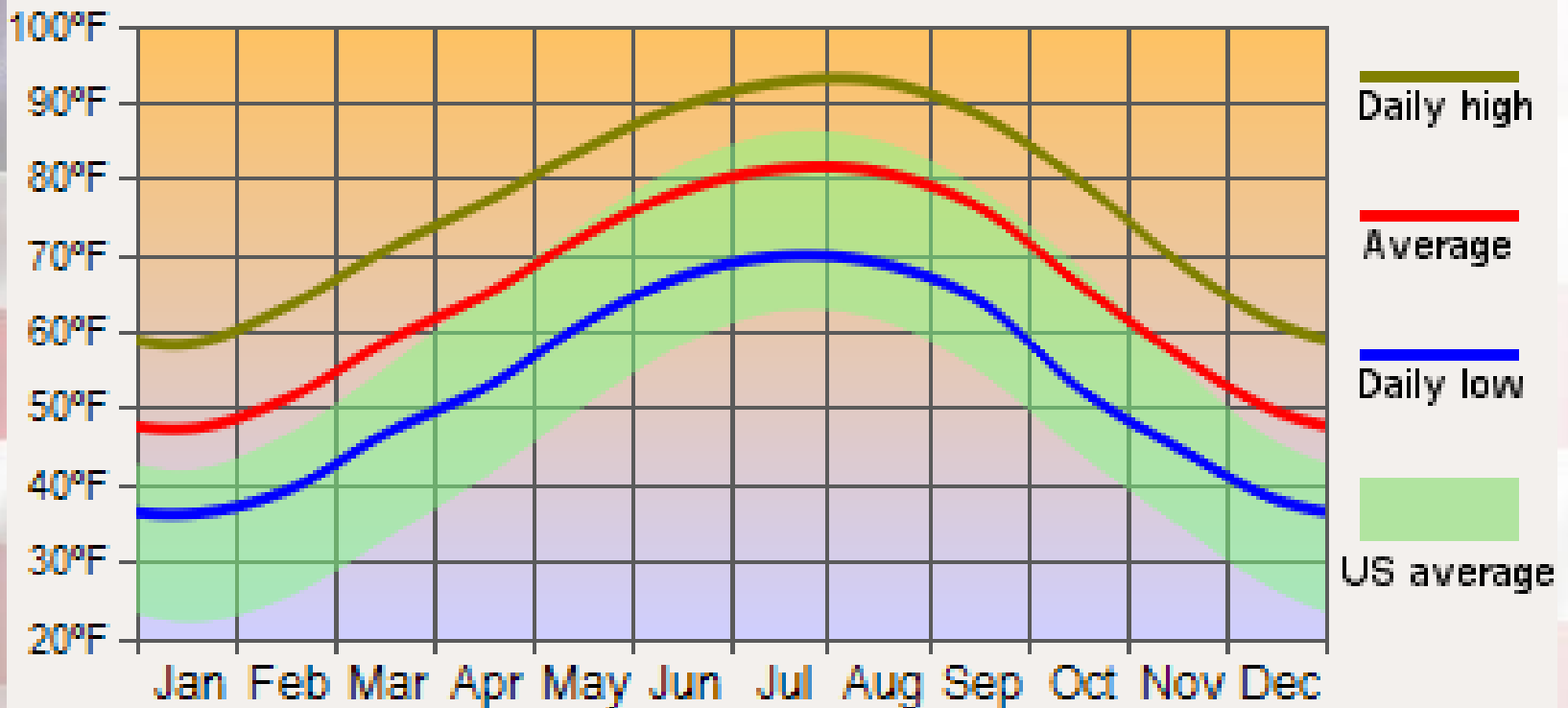
- Topography
 - Flat to gently rolling plains
- Climate
 - Humid, subtropical, hot summers, mild winters, rainfall is generally

lowest point: approx 180 ft
highest point: approx 483ft (Peason Ridge)



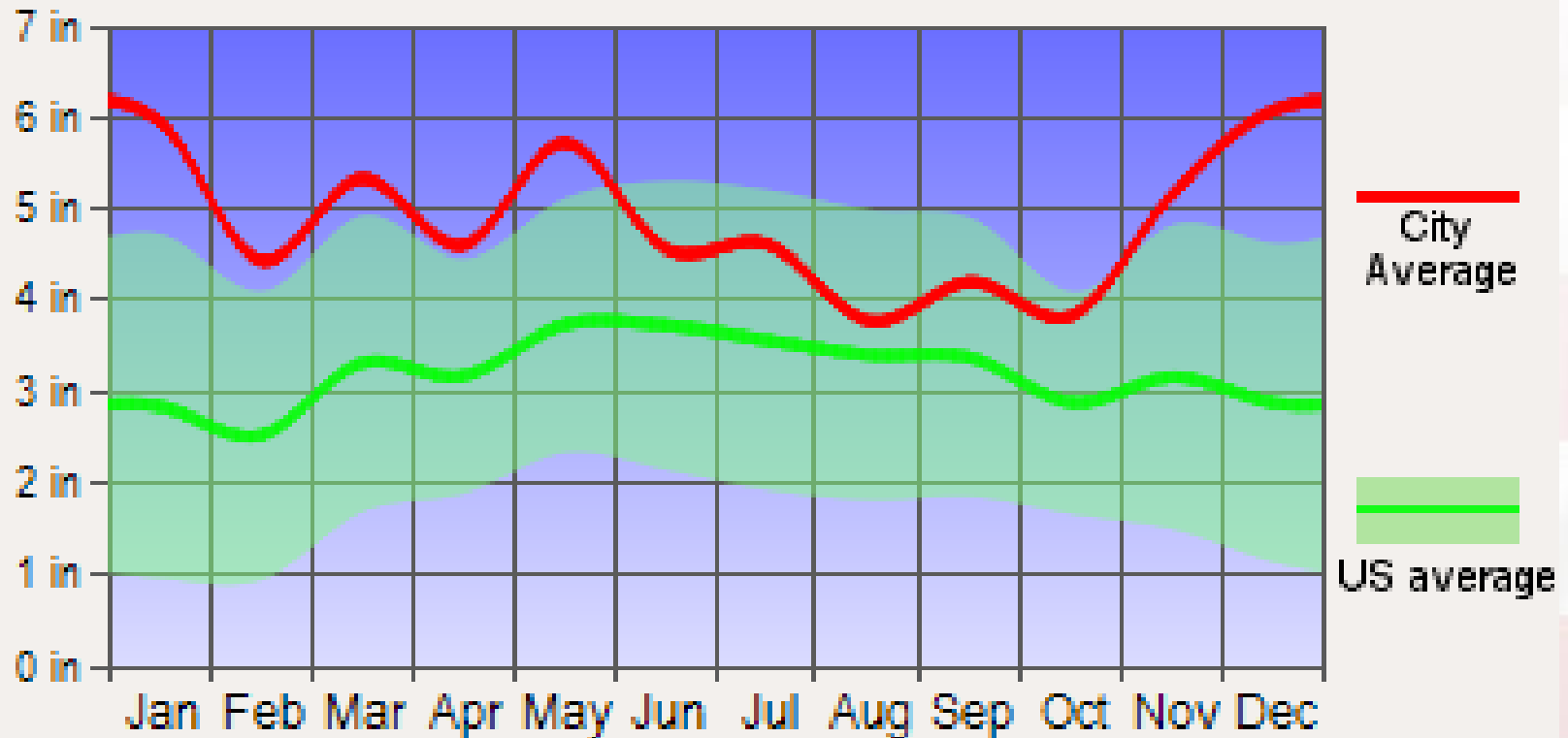
PHYSICAL ENVIRONMENT

Average Temperatures



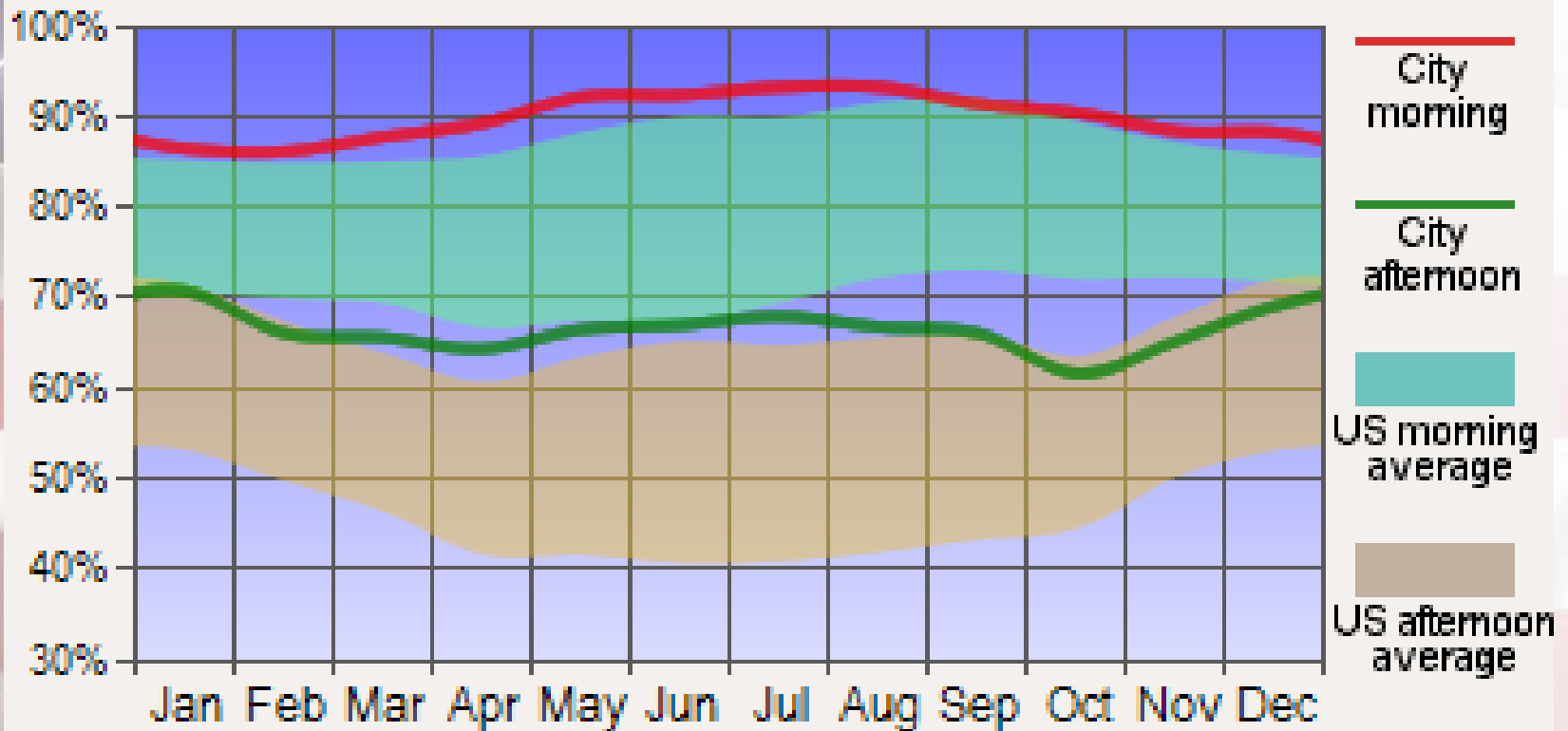
PHYSICAL ENVIRONMENT

Precipitation



PHYSICAL ENVIRONMENT

Humidity



HEAT INJURY PREVENTION

- Heat Cramps, Exhaustion, or Stroke

COUNTERMEASURES

- Drink fluids continuously (hourly fluid intake should not exceed 1.5 quarts, daily fluid intake should not exceed 12 quarts)
- Maintain acclimatization
- Protect yourself from exposure to sunlight and wind
- Maintain good physical condition
- Establish work/rest schedules
- Wear proper clothing
- Participate in training



Temperatures have reached a minimum of CAT 4 on almost a daily basis since 4 June 05!

HEAT

H: Heat category – WBGT Index

E: Exertion level (prior 3 days)

A: Acclimatization

T: Tables – Water/Work/Rest

REMEMBER

Water requirements are not reduced by any form of training or acclimatization.

Units which have soldiers who do not drink because they do not have opportunities to urinate have a leadership problem.



Work/Rest and Water Consumption Table

Applies to average sized, heat-acclimated soldier wearing BDU, hot weather. (See TB MED 507 for further guidance.)

Easy Work	Moderate Work	Hard Work
<ul style="list-style-type: none"> • Weapon Maintenance • Walking Hard Surface at 2.5 mph, < 30 lb Load • Marksmanship Training • Drill and Ceremony • Manual of Arms 	<ul style="list-style-type: none"> • Walking Loose Sand at 2.5 mph, No Load • Walking Hard Surface at 3.5 mph, < 40 lb Load • Calisthenics • Patrolling • Individual Movement Techniques, i.e., Low Crawl or High Crawl • Defensive Position Construction 	<ul style="list-style-type: none"> • Walking Hard Surface at 3.5 mph, ≥ 40 lb Load • Walking Loose Sand at 2.5 mph with Load • Field Assaults

- The work/rest times and fluid replacement volumes will sustain performance and hydration for at least 4 hrs of work in the specified heat category. Fluid needs can vary based on individual differences ($\pm \frac{1}{4}$ qt/hr) and exposure to full sun or full shade ($\pm \frac{1}{4}$ qt/hr).

• **NL** = no limit to work time per hr.

• **Rest** = minimal physical activity (sitting or standing) accomplished in shade if possible.

• **CAUTION: Hourly fluid intake should not exceed 1½ qts.**

Daily fluid intake should not exceed 12 qts.

• If wearing body armor, add 5°F to WBGT index in humid climates.

• If doing Easy Work and wearing NBC (MOPP 4) clothing, add 10°F to WBGT index.

• If doing Moderate or Hard Work and wearing NBC (MOPP 4) clothing, add 20°F to WBGT index.

Heat Category	WBGT Index, F°	Easy Work		Moderate Work		Hard Work	
		Work/Rest (min)	Water Intake (qt/hr)	Work/Rest (min)	Water Intake (qt/hr)	Work/Rest (min)	Water Intake (qt/hr)
1	78° - 81.9°	NL	$\frac{1}{2}$	NL	$\frac{3}{4}$	40/20 min	$\frac{3}{4}$
2 (GREEN)	82° - 84.9°	NL	$\frac{1}{2}$	50/10 min	$\frac{3}{4}$	30/30 min	1
3 (YELLOW)	85° - 87.9°	NL	$\frac{3}{4}$	40/20 min	$\frac{3}{4}$	30/30 min	1
4 (RED)	88° - 89.9°	NL	$\frac{3}{4}$	30/30 min	$\frac{3}{4}$	20/40 min	1
5 (BLACK)	> 90°	50/10 min	1	20/40 min	1	10/50 min	1

For additional copies, contact: U.S. Army Center for Health Promotion and Preventive Medicine Health Information Operations Division at (800) 222-9698 or CHPPM - Health Information Operations@apg.amedd.army.mil.

For electronic versions, see <http://chppm-www.apgea.army.mil/heat>. Local reproduction is authorized.

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CP-033-0404

OBTAINING CLIMATIC INFORMATION

- CURRENT HEAT CATEGORIES AND WBGT READINGS :
337-531-6593
- 15 APR – 15 OCT
- AUTOMATED WBGT
- NEW READING EVERY HOUR.

- WIND SPEEDS, TEMPERATURES AND WINDCHILL:
337-531-4100
- RANGE CONTROL PROVIDES CURRENT WEATHER CONDITIONS FOR TRNG AREAS

Post Water Supply



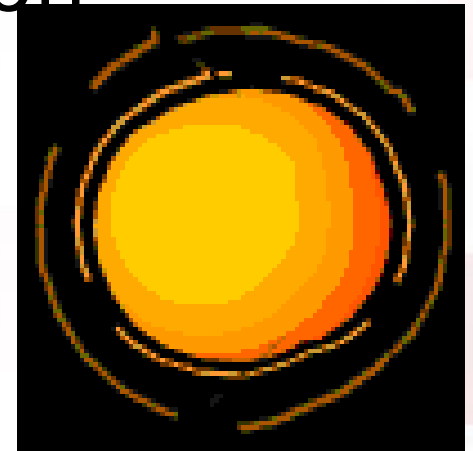
- Water is high in quality
- AECOM collects and tests samples from 20 sites per month
- DPM/EH collects and tests water samples from at least 40 sites for the presence of bacterial contamination each month
- If water from the pipes is brown, allow it to run for 5 – 10 minutes or until it runs clear

SUNBURN

- Prevent overexposing skin and eyes to solar radiation and wind

COUNTERMEASURES

- Use sunscreen and lip balm
- Use protective eyewear
- Limit exposure
- Cover nose and mouth to limit drying



Sunburn reduces soldier readiness and increases the likelihood of skin cancer.

COLD INJURY PREVENTION

- Hypothermia, Frostbite, Chilblains

COUNTERMEASURES

- **When possible, remain inside warming tents/buildings and drink warm, uncaffeinated liquids for relief from the cold**
- **If working outside or on guard duty, insulate yourself from the ground and wind. Rotate duty as frequently as mission allows.**
- **Properly wear the Extended Cold Weather Clothing System**



You should receive annual unit training on prevention of cold injury

COLDER

C: Keep clothing Clean

O: Avoid Overheating.

L: Wear clothing Loose and in layers

D: Keep clothing as Dry as possible

E: Examine clothing (holes, tears, broken fasteners)

R: Repair or replace damaged clothing



Notify your first-line supervisor if you have had a previous cold injury. Use the buddy system.



Wind Chill Chart



Wind (mph)	Temperature (°F)																		
	Calm	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63	-69
10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72	-78
15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77	-83
20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81	-87
25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84	-90
30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87	-93
35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89	-95
40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91	-97
45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93	-99
50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95	-101
55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-96	-102
60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98	-104

Frostbite Times 30 minutes 10 minutes 5 minutes

$$\text{Wind Chill (°F)} = 35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})$$

Where, T= Air Temperature (°F) V= Wind Speed (mph)

Effective 11/01/01

WET SKIN CAN SIGNIFICANTLY DECREASE THE TIME FOR FROSTBITE TO OCCUR

CARBON MONOXIDE

- Carbon monoxide (CO) is a colorless, odorless, and tasteless gas produced by engines, stoves, and gas/oil heaters.
- CO replaces oxygen in the body, causing headache, sleepiness, coma, and death.

COUNTERMEASURES

- Keep sleeping area windows slightly open for ventilation and air movement.
- DO NOT sleep in vehicles with the engine running or use engine exhaust for heat.
- DO NOT park vehicles near air intakes to tents, trailers, or environmental control units.

Do not use unapproved commercial off-the-shelf heaters. Check with your unit Safety Officer.



INJURY PREVENTION

- Accidental injury is a top diagnosis during most deployments
- Slips, Trips, and Falls
- Sharp/Hot Objects
- Falling Objects
- Vehicle Safety
- Electrical Safety
- Back Safety



FOOT CARE

Protect your feet by:

- keeping feet clean and dry
- change socks at least every 8 hours or whenever wet and apply foot powder
- bring extra boots to field - alternate boots from day to day to allow boots to dry.
- seek medical care at the first sign of any problems



MOSQUITOS / INSECTS

- State bird of Louisiana
- Carrier of West Nile Virus and other diseases established at Fort Polk
- Primary defense against the bite is DOD insect repellent system



PERSONAL PROTECTIVE MEASURES



**Permethrin
On
Uniform**

+



**DEET On
Exposed
Skin**



**Properly
Worn
Uniform**

**MAXIMUM
~~PROTECTION~~**

DOD Insect Repellent System

INSECT REPELLENTS FOR SKIN AND CLOTHING

DEET lotion



NSN 6840-01-284-2002



- Apply a thin coat to **EXPOSED** skin
- One application lasts up to 12

Permethrin

- Individual Dynamic Absorption Kit (IDA)

- Treatment lasts for over 50 launderings



NSN 6840-01-278-1336



NSN 6840-01-345-0237

- Aerosol spray can
- Treatment lasts through 5-6 washes

OTHER INDIVIDUAL COUNTERMEASURES

- Wash and inspect your body for insects/ticks and bites daily
- Use buddy system to check clothing routinely
- Launder uniform routinely to remove insects and eggs
- Order a permethrin-impregnated bed net for use while sleeping
 - Otherwise, treat a bed net before use by spraying the outside of the net with permethrin
 - Tuck edges under cot or sleeping bag
 - Don't let net touch your skin while you sleep

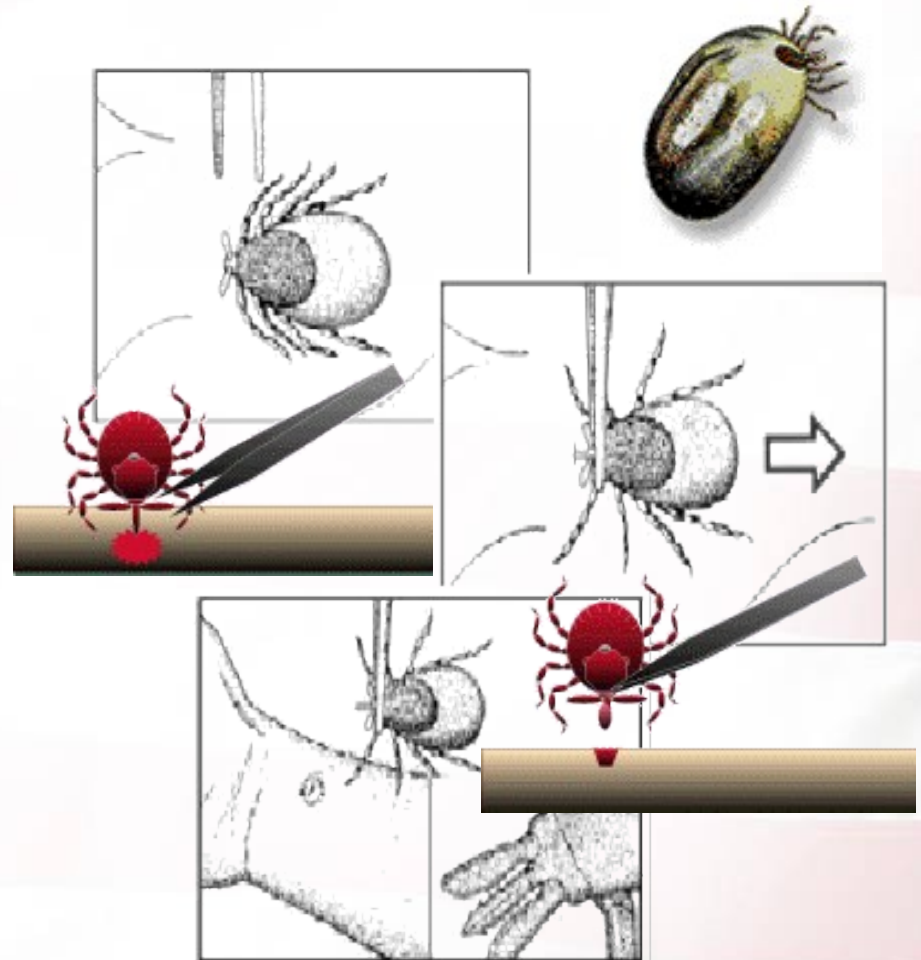


[NSN 3740-01-516-4415](#)



TICK REMOVAL PROCEDURES

- Use fine-tipped tweezers to grasp mouthparts
- Grasp mouthparts against skin surface
- Pull back slowly and steadily with firm tension
- Avoid squeezing tick
- Wash wound and apply an antiseptic



Hazardous Animals & Plants

- Animals

- Spiders, snakes, scorpions

- Plants

- Poison Ivy, Poison Oak, Poison Sumac

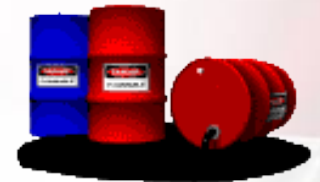
- FHP Priorities

- Do not handle animals
- Shake out boots, clothing, & bedding
- Do not touch, chew, eat, or burn unfamiliar plants



ENVIRONMENTAL CONSIDERATIONS

- Consider environmental aspects of operations
- What was the area originally used for?
- Properly manage hazardous material
- Properly dispose of hazardous and medical waste
- Prevent oil and fuel spills
- Clean vehicles at proper locations
- Respect cultural and historical property
- Protect natural resources and the terrain



ENVIRONMENTAL CONSIDERATIONS

- Hazardous Materials
- Hazardous Waste
- Medical Waste
- Refueling Points
- Spill Response
- Wastewater Discharge
- Decon Sites
- Latrines
- Burn pits
- Laundry and Bath
- Fuel Storage
- POL Storage
- Generators
- Special Wastes
- Burial Sites



OCCUPATIONAL HEALTH PRE-DEPLOYMENT

- Current Industrial Hygiene review of operations
- Engineering controls
- Supply of required Personal Protective Equipment (PPE)
- Hazard Communication (HAZCOM) training
- Personal Protective Equipment training
- Current medical surveillance



OCCUPATIONAL HEALTH DEPLOYMENT

- Occupational Health Hazards
- Use your applicable control strategies
 - Elimination or substitution
 - Engineering control
 - Work Practices and administrative controls
 - Personal Protective Equipment
- Follow the PPE program requirements



FIELD FACILITIES

CONTROL OF HAZARDOUS EXPOSURES

- Garrison facilities include engineering controls to control chemical exposures
- In the field, additional efforts are needed to provide the same level of control for these occupational exposures
- Install and use safety countermeasures



OCCUPATIONAL HAZARDS

- Exhaust from engines and fuel space heaters
- Gases from weapons firing
- Solvents used to clean weapons
- Chemicals and metals from vehicles and equipment
- Greases and oil from vehicle maintenance repair
- Detergents used to clean equipment
- Fuels and refueling operations
- Weapon systems: radiation energy, shock, vibration, noise



POST DEPLOYMENT



- Receive post-deployment preventive medicine briefing
- Receive post-deployment screening, testing, and follow-up

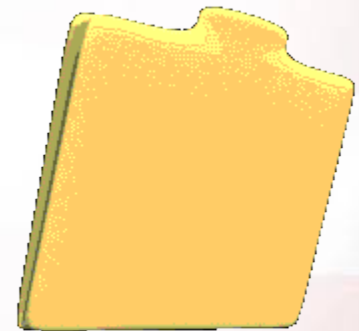
POST DEPLOYMENT

- Continue to seek counseling from Chaplain or medical personnel
- Homecoming Stress
 - Don't expect things to be exactly the same, especially if long deployment
 - Ease back into roles; don't rush it
 - Children may be withdrawn
 - Spouse may be moody or depressed
 - Financial and property issues may require immediate attention



SUMMARY

- Review of *Deployment Health Guide*
- Preparation for Deployment
- Deployment
- Medical Threat
- Post Deployment



CONCLUSION

- Health threat awareness and implementation of associated countermeasures discussed in the briefing are critical to all military missions (including combat, support, and sustaining base military and civilian forces). Apply this information during all phases of military operations, including training, pre-deployment, deployment, and post-deployment.





Contact Your Local Preventive Medicine Service or Medical Support Unit for Additional Information



Prepared by:
U.S. Army Center for Health Promotion and Preventive
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<http://usachppm.apgea.army.mil>

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