

RTCINST 3140.1N  
01  
20 JUL 04

RECRUIT TRAINING COMMAND INSTRUCTION 3140.1N

Subj: RECRUIT TRAINING COMMAND HOT WEATHER PROGRAM

Ref: (a) NTCGLAKESINST 3141.3C

Encl: (1) Duration of Physical Exercise Periods for the  
Intensive Training Exercise During Heat Conditions  
I - V  
(2) Medical Brief Sheet: Heat-Related Injuries  
(3) Heat Stress Flag System  
(4) Notification List

1. Purpose. To promulgate the Recruit Training Command (RTC) Hot Weather Program. This instruction modifies duties and responsibilities outlined in reference (a). This is a complete revision and should be reviewed in its entirety.

2. Cancellation. RTCINST 3140.1M

3. Discussion. As heat conditions progress, cumulative restrictions are placed on training. Violation of restrictions can result in heat induced casualties.

4. Implementation

a. Acclimation

(1) Training programs for physically deficient Recruits or who require extra time for acclimation should be limited in intensity and time. A "breaking in" period of two to three weeks with progressive degrees of physical exertion and heat exposure is usually sufficient to acclimate to exercising in a hot weather environment.

(2) Although acclimation increases tolerance for heat, it offers no immunity to heat illness. Over exertion can lead to injury even in mild weather. Water loss of two percent or more of body weight (1.5 quarts for average 160-pound recruit) is physically detrimental and may present a health risk.

b. Control of Physical Activity

(1) Using enclosures (1) and (2) as guidance, training programs in warm weather shall be planned on the basis of the Wet Bulb-Globe Temperature (WBGT) Index. This index combines shade air temperature, radiation, humidity, and wind into a single value.

(2) Heat Condition One. Shall be set when the WBGT is between 78.0F - 81.9F. A white flag with number "1" shall be flown to indicate this condition. Recruit fluid intake must be at least one canteen every 1 - 2 hours.

(3) Heat Condition Two. Shall be set when the WBGT is between 82.0F - 84.9F. A yellow flag with number "2" shall be flown to indicate this condition. Recruit outdoor activity and military drill shall be limited to 35 minutes duration, with at least one 25-minute period of reduced activity between drill periods. The removal of utility shirts in drill halls and classrooms may be permitted not to be performed inside a climate controlled building. Fluid intake must be at least one canteen every 1 - 2 hours.

(4) Heat Condition Three. Shall be set when the WBGT is between 85.0F - 87.9F. A blue flag with number "3" shall be flown to indicate this condition. Heat Condition Two actions shall be implemented. Fire Fighting Training Unit (FFTU) personnel, shall monitor safe stay times at the Lab Trainer and Confidence Chamber, securing operations as needed. Fluid intake must be at least one canteen per hour.

(5) Heat Condition Four. Shall be set when the WBGT is between 88.0F - 89.9F. A red flag with number "4" shall be flown to indicate this condition. Heat Condition Three actions shall be implemented. All Divisions shall secure all physical fitness training, athletic events, and military drill not performed inside a climate controlled building. All performing units shall secured practices except choirs and church ushers, unless performed inside climate controlled buildings. All Divisions shall secure IT/AIT/ITE not performed inside a climate controlled building. All road guards will walk (float) when called out/in. The initial Class III Swimmers Test and Non-Qualified Swimmers class will not be secured. Recruit Division Commanders (RDCs) must ensure Recruits' fluid intake is at least one canteen per hour.

(6) Heat Condition Five. Shall be set when the WBGT equals or exceeds 90.0F. A black flag with number "5" shall be flown to indicate this condition. Heat Condition Four actions shall be implemented. All strenuous activity will be secured and an at-ease march will be in effect. RDCs must ensure Recruit fluid intake is at least one canteen per hour.

(7) All indoor training sites will determine their own separate heat conditions based on readings from on-site WBGT meters. The determination to secure training at individual indoor sites will be made based on these on-site readings. On-site WBGT meter readings will commence and be logged hourly when the dry bulb temperature indoors equals or exceeds 75°F.

(8) Stations that will take individual readings include FFTU, Confidence Chamber, Drill Halls 7210, 7220, and Freedom Hall. Battle Stations (Bldg. 1312) will monitor inside and outside reading.

(9) Divisions will perform all scheduled phase assessments (CART, MCA, and FEP) under all flag conditions. SLCPO and RDCs will ensure a minimum of two operable hurricane fans are located forward and aft during all compartment assessments. During Heat Conditions Four and Five, all assessments may be modified by a Fleet Training Team (FTT)/ Ships Training Team (STT) inspector to ensure the safety of each Recruit.

(10) Activities permitted under all flag conditions

- (a) Administrative processing and work.
- (b) Indoor classes (actual periods of instruction or testing).
- (c) Religious services and instructions.
- (d) Phase inspections conducted by FTT/STT.
- (e) Initial swim qualification

c. Liquid and Salt Intake

(1) Fluid intake must be sufficient to replace fluid loss due to perspiration. During drill, physical training periods, and periods of successive marching and other physical activity in hot weather, recruits shall be allowed and encouraged to drink a minimum of four canteens but no more than twelve a day to include no more than 1 1/2 canteens per hour.

(2) Specific counseling shall be provided to recruits on the need to drink adequate fluids on Physical Training (PT) test days. The appropriate liquids to drink are water and fruit juices. Excessive amounts of coffee, soda, and milk are to be avoided. During counseling, the recruits shall be advised that water consumed during PT is to be taken in small amounts frequently.

(3) Personnel should apply salt liberally to their food at mealtimes.

d. Rest and Sleep

(1) Division schedules shall allow for a ten-minute rest period every hour and at least one hour of rest after meals before conducting PT.

(2) Berthing compartments will be equipped with window screens for insect control and provide ventilation (natural or mechanical). This also applies to recreation and messing facilities.

e. Clothing. Clothing and equipment shall be worn in such a way to provide maximum skin ventilation without unnecessary skin exposure to bright sunlight. During all heat conditions, recruits on the street will remain in the full uniform of the day.

5. Additional Preventive Measures. Compliance with enclosure (2) and the following additional measures will assist in reducing the possibility of heat induced illness or injuries:

a. The largest meal should be eaten in the evening.

b. Personnel should avoid overeating, excessive glucose intake, and limit the intake of caffeinated beverages.

6. Sickle Cell Trait (SCT) Positive/Glucose-6 Phosphate Deficiency (G6PD). SCT and G6PD recruits will be diagnosed during initial inprocessing medical screening and will be identified by a red medical alert dog tag and belts with red flags during PT. A red dog tag also identifies personnel who have allergies or react to certain medications, foods, etc.

7. Responsibilities

a. Fleet Commanders will ensure the appropriate flags are flown at Drill Halls 7210, 7220, Ships 1 - 17, Buildings 1127, 1405 1420, and FFTU during heat conditions, using enclosure (3).

b. Fleet Training Team Duty Officer will take WGBT readings and disseminate conditions per enclosure (4).

c. RDCs will stay informed of heat conditions in effect and ensure required actions are enforced. Recruits with red dog tags shall be identified and closely monitored, watching for symptoms of disorientation, dizziness, complaints of chills, or lack of sweating.

d. Group Commanders and Ships Leading Chief Petty Officers will inspect and ensure screens are in place within the ship, fans are present and in working order, scuttlebutts are operating and recruits are hydrated per this instruction.

e. The Technical Training Officer (TTO) shall ensure that PT and FFTU instructors comply with this instruction. Additionally, the TTO shall ensure appropriate flags are flown from Freedom Hall and the Fire Fighting Training Unit.

f. The RTC Branch Medical Clinic (Building 1017) will monitor the condition of recruits reporting to Sick Call, reporting as necessary to the RTC Medical Liaison Officer to ensure the chain of command is kept aware of trends of heat stress and the condition of individual Recruits.

g. The galley will secure caffeinated soda fountains during Heat Condition Two and above and ensure that all scuttlebutts are in working order.

RTCINST 3140.1N

8. Review. The Military Training Director and the Director of Curriculum and Technical Training will review this instruction annually, recommending changes as required.

/s/  
J. E. KNAPP, JR.  
By direction

Distribution:  
RTCINST 5216.2M  
(List I, Case B)

Copy to:  
OIC, RTC Branch Medical Clinic

RTCINST 3140.1N  
01  
20 JUL 04

**DURATION OF PHYSICAL EXERCISE PERIODS FOR THE INTENSIVE TRAINING**  
**EXERCISE (ITE) DURING HEAT CONDITIONS I-V IN NON CLIMATE**  
**CONTROLLED BUILDING**

<u>HEAT CONDITION</u>	<u>EXERCISE</u>	<u>REST</u>	<u>EXERCISE</u>	<u>UNIFORM</u>
One	30 min.	15 min.	30 min.	Utilities
Two	30 min.	15 min.	30 min.	Utilities
Three	15 min.	15 min.	15 min.	Utility shirts off
Four	SECURED	N/A	SECURED	N/A
Five	SECURED	N/A	SECURED	N/A

RTCINST 3140.1N

Enclosure (1)

**MEDICAL BRIEF SHEET: HEAT-RELATED INJURIES**

1. Three kinds of heat-related injuries:
  - a. Heat Cramps
  - b. Heat Exhaustion
  - c. Heat Stroke
  
2. Signs and Symptoms
  - a. Heat Cramps
    - (1) Severe muscular cramps in leg, calf, or abdomen
    - (2) May feel faint or dizzy
    - (3) Skin cool, moist
    - (4) Usually begins after exertion is completed
  
  - b. Heat Exhaustion
    - (1) May have intense thirst
    - (2) Profound muscular weakness and fatigue
    - (3) Severe headache
    - (4) May have skeletal muscle cramps
    - (5) Nausea, dizziness, fatigue
    - (6) Pale, cool, moist skin
  
  - c. Heat Stroke
    - (1) Dizziness, fainting, confusion
    - (2) Absence of sweating - 50 percent only
    - (3) Hot, flushed, dry skin
    - (4) Nausea
    - (5) Frontal headache
  
3. Prevention of Heat Injuries
  - a. Resistance is increased by replacing water and salt lost from the body as they occur.
  - b. Gradually acclimate individuals to the environment.
  - c. On hot days, limit physical activity according to the heat condition flag.

Enclosure (2)

4. Treatment of a Heat Injury

a. Heat Cramps

- (1) Move to cool place
- (2) Increase water and salt intake
- (3) Rest
- (4) No vigorous exercise for 12-24 hours
- (5) Refer to medical clinic if cramps do not subside within 2 to 4 hours

b. Heat Exhaustion or Stroke: Emergent transport to medical.

NOTE: If recruit is sickle cell trait positive, refer to Medical Clinic immediately.

5. Summary of heat Injuries

	<u>Heat Cramps</u>	<u>Heat Exhaustion</u>	<u>Heat Stroke</u>
Pathology:	Salt and water loss	Salt and water loss	Failure of heat regulatory mechanism
Cramping:	Present	May be present	Absent
Mental State:	Clear	May be disoriented	Fainting/coma
Skin:	Cool, moist	Cool, moist, pale	Hot, flushed, Dry
Temperature:	Normal	Normal or slightly up	High
Treatment:	Rest, and water/salt replacement	Cooling water, salt replacement	Rapid cooling oxygen

Enclosure (2)

HEAT STRESS FLAG SYSTEM			
HEAT CONDITION	WBGT INDEX	FLAG	ACTION REQUIRED
I	78.0 - 81.9	WHITE	- Protect from Sunburn - > 1 Canteen / 1-2 Hours
II	82.0 - 84.9	YELLOW	- Protect from Sunburn - > 1 Canteen / 1-2 Hours - Outdoor Drill / PT: < 35 min w/>25 min break - Relaxed Uniform: Permitted Indoors (shirts off in drill halls and classrooms).
III	85.0 - 87.9	BLUE	- Protect from Sunburn - Relaxed Uniform: Permitted Indoors (shirts off in classrooms). - > 1 Canteen / hour.
IV	88.0 - 89.9	RED	- Protect from Sunburn - > 1 Canteen / hour. - Drill/PT/ IT/AIT/ITE: Secured (unless performed inside climate controlled building) - Double Time: Secured (Road guards Float)
V	90.0 - >	BLACK	- Protect from Sunburn - > 1 Canteen / hour. - All Divisions: "At Ease March"

\* All phase inspections shall be conducted by FTT IAW RTCINST 3140. Series.

**Minimum 4 canteens/maximum 12 canteens and no more than 1½ canteens per hour.**

**NOTIFICATION LIST**

SHIP	PHONE #	MTD	2169
1	2299	PACIFIC FLEET	4980/4981
2	6938	ATLANTIC FLEET	2475/2476
3	6126		
4	2042		
5	7444		
6	7005		
7			
8	4627		
9	4899		
10	5851		
11			
12	7536		
13	5807		
14	5325		
15	2992		
17	4106		
NTC CDO	7865		
NTC SAFETY	2035		
RTC SAFETY	2774		
BUILDINGS			
1313 (PAO)	2405		
GALLEY			
928	6255		
1128	4817		
RTC CDO	7865		
FTT	5592		
MEDICAL	6755		
GUN RANGE	2391		
THU/SEPS	2992		
SCHEDULING	6840		
PERS OFF	6935		
FFTU	5402		
DRILL HALLS			
7210	2315		
7220	3506		

Enclosure (4)