



# UNITED STATES MARINE CORPS

COMMANDER, U.S. MARINE CORPS FORCES, PACIFIC  
CAMP H.M. SMITH, HI 96861-5001

IN REPLY REFER TO:  
MARFORPACBUL 5100  
SAFETY

20 FEB 2004

U.S. MARINE CORPS FORCES, PACIFIC BULLETIN 5100

From: Commander, U.S. Marine Corps Forces, Pacific  
To: Distribution List

Subj: BASE CAMP FIRE PROTECTION

Ref: (a) MCWP 3-21.1

Encl: (1) Base Camp Fire Protection and Prevention  
Requirements  
(2) Sample Open Flame Burning Permit  
(3) Sample Fire Bill

1. Purpose. To provide requirements for fire protection and prevention at base camps during training and contingency operations.

2. Information. Enclosure (1) provides base camp fire protection and prevention requirements. Enclosure (2) provides a sample of the Open Flame Burning Permit. Enclosure (3) provides a copy of a Fire Bill.

3. Action. Commanders and Officers In Charge will ensure the provisions of enclosure (1) are implemented at all base camps in order to ensure the fire safety of Marines, Sailors, and equipment.

4. Cancellation Contingency. This bulletin remains in effect until cancelled.

M. C. O'NEAL  
Chief of Staff

DISTRIBUTION: LIST I

**Base Camp Fire Protection and Prevention Requirements**1. Responsibilities

a. **Commander's Responsibilities.** Commanders, through the base commandant, are responsible for establishing effective fire protection and prevention programs. Commanders must also ensure that adequate training is provided and conducted so Marines can carry out fire protection and prevention duties. The base commandant will distribute to tenant organizations within the camp area: established fire regulations consisting of elements contained in this enclosure, and provide a tent camp fire bill utilizing enclosure (2). Tenant commanders shall support fire protection and prevention efforts by disseminating regulations and procedures (tent camp fire bill) established by the base commandant. In addition, tenant commanders shall ensure maximum participation during fire protection and prevention training. Sufficient planning shall consist of embarking or contracting the suitable amount and type of fire extinguishers and firefighting vehicles to cover base camp tentage and structures.

b. **Base Camp Fire Warden.** Shall be designated in writing by the Base Commandant. Responsibilities will include but are not limited to the following:

(1) Ensure base camp fire regulations and fire bill indicating evacuation directions are posted on a visible place in each tent or structure. A class on the following regulations, fire protections measures, and use of available fire extinguishers should be given to camp inhabitants as soon as possible after their arrival:

(a) A high state of cleanliness in and around tents must be maintained. Trash must be removed each day or whenever a large amount accumulates.

(b) Combustible waste should be collected and disposed of on a regular basis. Avoiding buildup of combustibles will prevent spread of an ongoing fire.

(c) Lockers and cabinets containing combustibles or hazardous supplies must be properly ventilated, located at least 50 feet away from structures, and clearly marked flammable.

(d) In the event of fuel or hazardous material spills, local fire departments should be contacted and all personnel kept clear and upwind.

(e) Hazardous waste shall be placed in approved containers marked with the name of the substance and placed in a hazardous material staging area.

(f) Explosives, flares, grenades, detonating cord, and training devices will be stored in field ammo storage sites. If any of these items are found, explosive ordnance disposal or ordnance personnel shall be contacted for proper recovery and disposal.

(g) Butt cans for cigarettes will be provided in bivouac areas 50' feet away from combustibles structures. Butt cans shall be drenched with water before disposal.

(h) Tent stoves, heaters, cooking ranges, and other heat producing equipment will be placed no closer than 18 inches to a tent wall or other flammable objects (e.g., cots, tables, chairs).

(i) Stovepipes will have tight-fitting joints and will terminate in a standard roof jack containing a spark suppressor. Nonflammable guide wires will support stovepipe sections extending above the apex of the tent.

(j) Barrel latrines are to be burned according to regulations. Extreme caution must be used when lighting the drum. Only diesel fuel is to be used. Detailed instructions can be found in NAVMED P5010, *Manual of Naval Preventive Medicine*, and Field Manual 21-10, *Field Hygiene and Sanitation*.

(k) Tampering with electrical wiring or circuits is strictly prohibited. Only utility personnel should conduct repairs and modifications. To avoid overloading circuits, multiple plugs and light sockets will not be used. All personnel should be familiar with the power breakers. If an incident involving electricity occurs, the source should be secured immediately.

(l) Messhall stoves and immersion heaters must be cool to the touch prior to release of pressure and refueling. Refueling will be done outside with a minimum of 50-foot clearance of all combustibles. One individual will stand by with an extinguisher to observe the process. Equipment leaking liquid or vapor fuel will be removed from service until repaired.

(m) Review and approve all open burn/flame permit requests. Enclosure (3) is provided as an example burn permit.

c. Unit Fire Wardens. A fire safety warden shall be designated for each unit to assist with fire prevention for the unit's shop and billeting areas. Fire safety wardens are responsible for:

(1) Posting the fire bill in their unit's billeting areas and workspaces.

(2) Ensuring personnel in their units are familiar with the nearest fire alarm and fire extinguisher location in their vicinity.

(3) Coordinating necessary training in the operation and maintenance of fire extinguishers.

(4) Designating smoking areas that are 50' away from combustible structures with a minimum of two butt cans half full of sand.

(5) Designating a predetermined muster area to be used during a fire by unit personnel to conduct roll call.

(6) Obtain approval of open burn permits by the base fire warden.

## 2. Camp Layout

a. Camps must be laid out in such a way as to prevent fire from jumping from tent to tent. Tents should be placed so that the adjoining tent cannot collapse on another tent.

b. To prevent flames from using ropes as a vehicle, tent support ropes should not crisscross each other between tents. Grass, underbrush, fallen leaves, and pine needles should be cleared from around the tents to prevent fire from spreading. Special considerations should be given to the placement of supply areas, ammunition dumps, petroleum, oils, and lubricant areas, and other areas containing combustible materials.

c. Tents should be configured into blocks of six tents (two rows of three tents). See figure 1-1. Tents within the blocks should be spaced at least 10 feet apart side-to-side and 8 feet apart end-to-end. A 20-foot fire lane should separate each tent block. This allows the firefighters to attack the fire from any angle and reach every tent within the block.

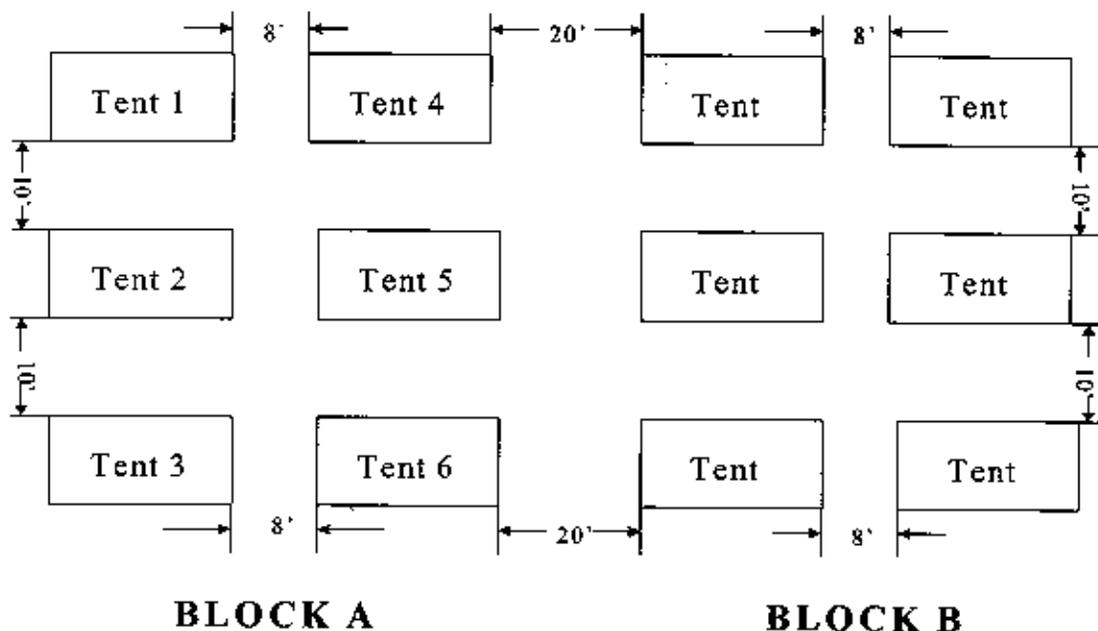


Figure 1-1

d. Tent blocks and individual tents should also be marked using an alphanumeric identification system to speed fire report

and respond times. The unit responsible for the tent and/or workspace is responsible for placing a fire extinguisher in each tent.

3. Fire Protection Measures. The following measures are necessary to maintain an effective fire protection program:

a. Billeting tents must have a minimum of one 20-pound multipurpose (Class A, B and C) fire extinguisher or a potassium bicarbonate (PKP) extinguisher.

b. Working spaces should have appropriate extinguishers.

c. Fire points, consisting of two 55-gallon drum barrels full of water, shall be established no further than 100 feet from any tent. Barrels for fire points shall be painted and clearly marked for fire protection. During the winter, the barrels will be full of water treated with calcium chloride to prevent freezing.

d. Fire watches will be established for each bivouac and storage area.

e. A fire alarm should be installed at each fire point. The alarm must be loud and distinct.

f. The communications officer shall maintain channels of communication to the base/air station fire department.

4. Fundamentals of Fire. A basic understanding of fire behavior and classification is necessary to provide adequate fire protection and prevention.

a. Behavior. Fire burns in surface combustion and flaming modes. Surface combustion is represented by the fire triangle, which consists of fuel, oxygen, and heat. Flaming is represented by the fire tetrahedron that includes a chemical reaction as a component of burning. This converts the fire triangle into a four-sided figure.

b. Classification. The type of fuel that is burning

determines the classification of fire. The four classifications of fire are as follows:

(1) Class A fires are fueled by solids (e.g., paper, wood, cloth).

(2) Class B fires involve flammable liquids (e.g., gasoline, oils, greases).

(3) Class C fires involve energized or live electrical equipment. Once the electrical source is removed, the fire reverts to one of the other fire classifications.

(4) Class D fires involve combustible metals (e.g., titanium, zirconium, sodium, potassium, magnesium, and lithium batteries).

#### 5. Basic Fire Extinguishing Methods

a. Cooling or Quenching. Fires fueled by solids are extinguished by reducing the temperature of the fuel below its ignition temperature.

b. Smothering or Blanketing. This process simply removes oxygen from the fire (e.g., covering a burning pan, throwing dirt on a flame).

c. Removing Fuel. Turning off the fuel supply source (e.g., natural gas, kerosene, oil) or removing solid fuel can effectively control and extinguish fires.

d. Chemical Fire Inhibition. Agents such as dry chemicals or gases (halon) react with the burning fuel and interrupt the flame producing the chemical reaction, resulting in rapid extinguishment.

6. Portable Fire Extinguisher. The following are considerations for portable fire extinguisher use:

a. The extinguisher must be visible, easily accessible, and maintained in good working order.

b. The extinguisher must correspond to the type of fire expected (Class A, B, C or D).

c. Personnel must be trained in the proper use of extinguishers.

7. Safety. The following are general base camp and fire safety requirements and considerations:

a. Personnel who have not been formally trained in firefighting tactics must be cautioned to exercise good judgment while combating a fire and cautioned not to endanger themselves in the process.

b. Warning signs, indicating escape routes, should be posted at the entry points to confined spaces.

c. Exits and entrances to structures must remain free of objects and obstructions.

d. Vehicle parking areas must be located away from sleeping quarters to prevent carbon monoxide poisoning.

e. Vehicles are placed to prevent rolling into sleeping areas and mess facilities.

f. POL storage areas are located on low ground away from billet areas.

8. Open Flame Burning. Approval for open burning must be received by the base camp fire warden and meet the conditions listed below:

a. The fire will be at least 50 feet from any combustible structure.

b. The fire will be at least 200 feet from flight line, explosive or fuel storage areas.

c. Fire extinguisher/bucket of water will be on hand until the fire is completely out.

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- d. Personnel will monitor the fire until completely out.
- e. Ashes must be drenched with water before disposal in trash container.
- f. Burning must not be conducted during excessive wind conditions (surface winds greater than 5 miles per hour or 4.3 knots).
- g. Burning will be conducted in a designated area approved by the base commandant.
- h. Document burning will be contained in a drum barrel (55-gallon) with a grill top.

# **FIRE BILL**

BUILDING/TENT NUMBER \_\_\_\_\_

## **IN CASE OF FIRE**

1. **SOUND THE FIRE ALARM OR TELEPHONE EXT.** \_\_\_\_\_

Know the location of the nearest alarm and the nearest telephone in your area. When using telephone, **REPORT BUILDING/TENT NUMBER.**

2. **SPREAD THE ALARM—PASS THE WORD.**

3. **USE PROPER FIRE FIGHTING EQUIPMENT TO HAND EXTINGUISH THE FIRE. IF FIRE CANNOT BE EXTINGUISHED AND IS GETTING OUT OF CONTROL, EXIT THE AREA. DO NOT PLACE YOURSELF OR OTHERS IN DANGER.**

4. **IF TIME PERMITS, CLOSE DOORS AND WINDOWS TO CONFINE THE FIRE AND PREVENT DRAFTS. DO NOT ENDANGER YOURSELF OR OTHERS IN THIS EFFORT.**

**ALL HANDS MUSTER IN THE FOLLOWING DESIGNATED AREA**

**IT IS THE RESPONSIBILITY OF ALL HANDS TO EXECUTE THE ABOVE  
FIRE BILL PROCEDURES**

**FIRE EXTINGUISHER ASSIGNMENT:**

PRIMARY \_\_\_\_\_ ALTERNATE \_\_\_\_\_ FIRE  
EXTINGUISHER SHALL BE INSPECTED WEEKLY

**ESCAPE ROUTE**

Sample Open Flame Burning Permit

From: Base Camp Fire Warden  
To: (Person in charge of open burning)  
Subj: OPEN FLAME BURNING PERMIT

Date Issued: \_\_\_\_\_ Date Expires: \_\_\_\_\_

Permit Number: \_\_\_\_\_ Location: \_\_\_\_\_

Name, signature and unit of person in charge of open burning: \_\_\_\_\_

1. Permission for open burning is hereby approved provided the conditions listed below are adhered to.

a. The fire will be at least 50 feet from any combustible structure.

b. The fire will be at least 200 feet from flight line, explosive or fuel storage areas.

c. Fire extinguisher/bucket of water will be on hand until the fire is completely out.

d. Personnel will monitor the fire until completely out.

e. Ashes must be drenched with water prior to disposal in trash container.

f. Burning must not be conducted during excessive wind conditions (surface winds greater than 5 miles per hour or 4.3 knots).

g. Burning will be conducted in a designated area approved by the air base commandant/fire department.

h. Document burning will be contained in a drum barrel (55-gallon) with a grill top.

\_\_\_\_\_  
Base Camp Fire Warden