



## DEPARTMENT OF THE NAVY

ATLANTIC ORDNANCE COMMAND

P.O. DRAWER 410

YORKTOWN, VA 23691-0410

LANTORDCOMINST 8020.3

S

20 AUG 2002

### LANTORDCOM INSTRUCTION 8020.3

Subj: THUNDERSTORM/LIGHTNING NOTIFICATION PROCESS

Ref: (a) NAVSEA OP 5, Vol 1

Encl: (1) Lightning Condition Definitions/Actions  
(2) Contingent Notification Procedures

1. Purpose. To describe the Atlantic Ordnance Command (LANTORDCOM) Lightning Warning System (LWS) and define the lightning warning notification process per enclosures (1) and (2).
2. Scope. The LANTORDCOM LWS will provide lightning warning notification to Naval Weapons Station Yorktown (WPNSTA) activities.
3. Discussion
  - a. Decisions to secure operations shall be based on data received from the LWS. Two lightning conditions have been established for supervisors to manage their work with respect to approaching lightning. The condition definitions and actions as listed in enclosure (1) are for LANTORDCOM and are consistent with reference (a). WPNSTA activities should create their own definitions and actions tailored to their operations relative to the two lightning conditions.
  - b. The LWS consists of a notification computer and a Video Information System (VIS) receiving data from two sources: 1) the National Lightning Detection Network (NLDN) real time lightning data via satellite, and 2) a local Electric Field Mill (EFM) monitoring the local electric field gradients. The combined data from the NLDN and EFM provide advance warning of lightning events and identifies when the threat has passed.
  - c. Notification is accomplished automatically by the LWS computer. A telephone voice message will be provided to the telephone numbers listed on the Lightning Notification List. In the event automatic notification equipment is not functional, the procedures of enclosure (2) will be employed. Anyone at anytime can call 847-7861 to access the LWS for the current Lightning Condition.

#### 4. Responsibilities

- a. WPNSTA Yorktown Communications Center:

(1) Perform a daily inspection of the LWS to ensure it is operating properly.

(2) Notify Ordnance Systems Support and Code 221 when the LWS is not operating properly.

b. Ordnance Workload and Inventory Division (Code 221):

(1) Monitor the VIS for lightning activity and make notifications in accordance with enclosure (2) when the automatic dialing notification system is not operable.

(2) Expedite any repairs or technical assistance needed to maintain the system.

(3) Maintain the telephone Lightning Notification List and change the automatic dialing notification system programmed numbers as required.

(4) Notify WPNSTA e-mail distribution when the LWS system is out of service and when service is resumed.

(5) Manage the NLDN service contract to ensure that the annual subscription contract is renewed and the periodic subscription fees are remitted.

5. Action

a. LANTORDCOM supervisors will familiarize themselves with the requirements of enclosure (1) and will ensure personnel comply with the requirements.

b. WPNSTA Yorktown and LANTORDCOM Yorktown activities that require lightning notification will contact the LANTORDCOM Ordnance Systems Support Trouble Call Desk at 887-4235 to add or change numbers on the Lightning Notification List.

  
K. E. SKUDIN

Distribution:  
LANTORDCOM III, V  
WPNSTA 00A, 01  
Peninsula Storefront for Safety and Occupational Health

## LIGHTNING CONDITION DEFINITIONS/ACTIONS

1. LIGHTNING CONDITION II (Lightning Approaching)

- a. The LWS has detected lightning within 25 miles of the station.
- b. Lightning is possible within approximately 1 hour.
- c. Supervisors should consider postponing ordnance handling that will take more than 2 hours.
- d. Prepare to cease operations if the condition is raised.

2. LIGHTNING CONDITION I (Lightning Imminent)

- a. The LWS has detected lightning within 5 miles of the station and/or the EFM has an electric field potential of 2000 volts/meter. Supervisor/workers see lightning or hear thunder.
- b. Lightning is imminent.
- c. All exposed A&E will be immediately re-stowed.
- d. Cease operations at magazines or open storage sites, secure equipment, close and lock the magazines, and evacuate personnel to a safe location.
- e. Handling of A&E at magazines and open storage areas shall cease.
- f. Loading or unloading motor vehicles is prohibited.
- g. Cease ordnance handling operations at the pier.
- h. Motor vehicles in transit containing A&E shall, if possible, be driven to an area equipped with lightning protection. If not possible, motor vehicles shall be moved to an area where detonation of their contents will not cause loss of life and damage to adjacent areas is minimized. A&E on trailers at the pier should be immediately moved to the lightning protection zone at the south end of the pier.
- i. Move personnel to shelter.
- j. Lower the boom of all portable cranes and move to the lightning protection zone.
- k. Cease fueling.
- l. Production buildings with lightning protection systems meeting current requirements of NAVSEA OP 5 may continue to operate unless explosive dust, flammable vapors, or exposed electroexplosive devices (EED's) are present.

3. ALL CLEAR

- a. In the last 15 minutes, the LWS does not detect any lightning strikes within 25 miles of the station and the EFM indicates less than 1000 volts/meter.
- b. Operations may resume.

## LANTORDCOMINST 8020.3

### Notes:

1. NAVSEA OP 5 requires termination of ordnance operations when lightning is within 5 miles, non-receipt of lightning notification from the LWS, however, does not relieve the responsibility from the supervisor to secure operations when conditions warrant; i.e., sees lightning or hears thunder. Anyone may call 847-7861 to access the LWS for the current lightning condition.
2. It is not necessary to terminate operations or evacuate personnel from explosives operating buildings that have primary lightning protection and secondary grounding systems meeting current requirements unless EED's are present.
3. Ordnance staged on the pier should always be staged within the lightning protection zones along the inboard side of the pier. Ordnance staged on trailers on the pier should be staged in the lightning protection zone at the south end of the pier.
4. Lightning conditions may change more rapidly than the condition indicates based on the speed of the storm. Fifteen miles per hour was used as an average storm speed. Actual storm speed may be more or less.

## CONTINGENT NOTIFICATION PROCEDURES

In the event the automatic notification system is not functional, monitor the Lightning Warning System (LWS) and make notification calls in accordance with this procedure.

1. Enable the Range Box audible alarms:
  - a. Press "f2" to menu
  - b. Use arrow keys to select "Modify", Press "Enter".
  - c. Use arrow keys to select "Sound", Press "Enter".
  - d. Use arrow keys to select "Range".
  - e. Use space bar to toggle Alarm Status to "On".
  - f. Press ESC.
  - g. Press "f2" to return to the map presentation.
2. Thirty-mile range box alarm sounds and/or box changes from white to red: Make notification calls to the telephone numbers listed on the "Lightning Notification List". Convey the following message: "Set Lightning Condition II. Lightning is possible within 1 hour or less."
3. Ten-mile range box alarm sounds and/or box changes from white to red: Make notification calls to personnel listed on the "Lightning Notification List". Convey the following message: "Set Lightning Condition I. Lightning is possible at any time."
4. Both thirty-mile and 10-mile range box alarms are silent and/or both boxes have changed from red to white for 15 minutes: Make notification calls to personnel listed on the "Lightning Notification List". Convey the following message: "Secure from Lightning Conditions. All clear."
5. To acknowledge (silence) the audible range box alarm, press the "A" key.

