PRIVATE LINE TELEPHONE SERVICE
OCD NATIONAL WARNING SYSTEM (NAWAS)
DESCRIPTION AND OPERATING FEATURES

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1. GENERAL

1.01 This section covers the description and operating features of the OCD National Warning System (NAWAS).

1.02 This supersedes and cancels 310-405-500 LL, Issue L, May 1966.

1.03 This system is designed specifically for the issuance of warnings from any one of several locations in the event of attack or any natural or man-made disaster. It is arranged to permit the warnings to be received simultaneously at all OCD Regional Headquarters and all warning locations in the nation. The circuitry consists of a multi-point control circuit serving the three National Warning Centers and the eight Regional Warning Centers; eight multi-point round robin circuits, each serving a Regional Headquarters; the state and federal warning points in the region; and forty-eight multi-point circuits, each serving a state in the Continental United States.

1.04 Due to the nature of the information in this practice which is subject to frequent change (routine test schedules, SS1 codes, etc.), the District in which the Network Control Office is located will be responsible for revisions to the section. Changes which occur should be forwarded to the Plant Operating Engineer, New York, N.Y. to be reissued and distributed.

2. SYSTEM

2.01 Major components of the National Warning System are (a) National Warning Centers, (b) OCD Regions, (c) State Warning, (d) Control Circuit.

2.02 ***National Warning Center:*** The NWC is one of three locations that will control the National Warning System in the event of a national emergency. The other two centers will provide back-up to the one in control. The locations of the National Warning Centers are as follows:

NWC 1—Cheyenne Mountain, Colo.- Primary Center;

NWC 2—Denton, Texas—First Backup;

NWC 3—Washington, D.C.—Second Backup

2.03 ***OCD Region:*** The continental United States is divided into eight geographical areas. These areas are referred to as Regions and are designated 1-8. Each Regional Headquarters is responsible for dissemination of warning to the states in its region as well as coordination of Civil Defense efforts. See Appendix 1 for a list of the regions and the states within their control areas.

2.04 ***State Warning:*** Each state has a location designated as the State Warning Point (SWP) which is responsible for dissemination of warning as well as coordination of Civil Defense efforts within the state. Each state also has an ***Alternate State Warning Point*** identical to the SWP but located in a protected facility, sometimes remote from the SWP.

2.05 ***Control Circuit (GP8246):*** This is the only direct voice communications link between the three National Warning Centers and each of the eight Regional Headquarters. This circuit is also used as a vehicle for transmission of SS1 codes. During simulated alerts, this circuit is used for coordinating the actions of the three Warning Centers.

3. CIRCUIT DESCRIPTION

3.01 ***Regional Multi-Point Round Robin Circuits:*** Each circuit originates at the Regional Headquarters, connecting each of the primary State Warning Points and alternates, and returning to the Regional Headquarters. Round robin service is provided at those locations where feasible to provide the Regional Headquarters with survivability. Federal Warning Points, such as Coast Guard stations, etc., are also served off the Regional circuit. All points on a regional circuit can communicate with each other. A leg of each regional circuit is extended to at least one of the three National Warning Centers. Each of the three National Warning Centers can confer with each regional circuit feeding that center. When all three National Warning Centers simultaneously confer with their respective regions, they establish a single "party line" type of circuit encompassing 48 states and the District of Columbia.

3.02 Various regional circuits can be connected together, as shown in Fig. 1, Appendix 3.

4. SIGNALLING ARRANGEMENTS

4.01 ***Control Circuit:*** Each of the three National Warning Centers has transmit and receive SS1 units on this circuit. The various regional headquarters plus certain other locations on the circuit have "receive only" SS1 units for selective calling. All other selective calling is by voice paging only. In addition to the selective functions mentioned above, SS1 codes can be transmitted by the NWCs to perform various remote switching functions throughout the NAWAS system.

4.02 ***Regional Warning Circuits:*** Key signalling will be used from the National Warning Centers toward the Regional Headquarters and State Warning Points. Signalling in the opposite direction is by voice only, using the handset and push-to-talk button.

4.03 ***State Warning Circuits:*** Voice paging is used at all points on the State Warning Circuits. The State Warning Points also have the capability of key signalling on the state circuit.

5. STATION EQUIPMENT AND OPERATION

5.01 ***Warning Point:*** Standard installations at all warning points will consist of the following:

(a) Hangup handset with retractable cord

(b) Push-to-talk button

(c) Loudspeaker

(d) Audible incoming signal and bell to receive signals

(e) Bell to ring independent of switch-hook operation.

When the handset is removed from the cradle, the loudspeaker is automatically disconnected from the circuit and voice communication may be started by depressing the push-to-talk button.

5.02 ***State Warning Points:*** Each State Warning Point has the following equipment connected to the Regional Warning Circuit:

(a) Hangup handset with retractable cord

(b) Push-to-talk button

(c) Loudspeaker

(d) Bell

(e) Footswitch bypass equipment

5.03 The following additional equipment is provided on the State Warning Circuit:

(a) Loudspeaker

(b) Key signalling

(c) Foot-operated switch

(d) Lamp indicator

In the normal condition, the handset is connected to the Regional Warning Circuit. When it is used for communication on this circuit, the loudspeaker normally is disabled by switch-hook operation. Several locations mute the loudspeaker by operation of the push-to-talk button rather than by switch-hook.

5.04 Whenever it is desired to communicate on the State Warning Circuit, the operation of the foot-operated switch accomplishes the following:

(a) Transfers the handset from the Regional Warning Circuit to the State Warning Circuit

(b) Disconnects the State Warning Circuit from the Regional Warning Circuit

(c) Disables the loudspeaker on the State Warning Circuit when the handset is used.

The loudspeaker associated with the Regional Warning Circuit will remain in operation so that communication from the Warning Center will be received.

5.05 ***Footswitch Bypass:*** Each State Warning Point has an arrangement whereby the footswitch which separates the state circuit from the region is bypassed upon receipt of an SS1 code (2-2) on the regional circuit. Only the three NWC's have the capability of transmitting this SS1 code. This ensures that in the event of an emergency any warning issued from a National Warning Center will be received within all states and not be blocked at the State Warning Point. This can be restored by dialing another SS1 code (4-4).

5.06 ***Lamp Indicator:*** Each State Warning Point and Alternate State Warning Point has three lamps denoting the following.

- Green—Lights when the footswitch is depressed
- White—Lights when the footswitch has been depressed at the other state location. This lamp would light at the SWP when the Alternate SWP depressed his footswitch. Likewise, it would light at the Alternate SWP when the SWP depressed his footswitch.
- Red—Lights when the footswitch bypass circuit has been activated via SS1 code (2-2) from a National Warning Center.

Note: A few SWPs are not equipped with green and white lamps at the present time.

6. OFFICE RESPONSIBILITIES

6.01 All offices shall assume normal responsibilities as outlined in Section 660-201-010 and as supplemented by this section.

6.02 Control offices are responsible on this system as follows (See Appendix 1):

(a) ***General Control Office—Cheyenne Mountain Central Office:*** Responsible for normal Plant Control Office functions relating to the overall National Warning System, this office acts as network control on the eight regional round robin circuits as outlined in Section 660-201-010. This includes trouble clearance, service improvement programs, network performance analysis, and coordination of changes to the network where more than one circuit control office is involved. This office will work very closely with the Plant Network Manager.

(b) ***Network Control Offices:*** Boston, Massachusetts; Richmond, Virginia; Thomasville, Georgia; Battle Creek, Michigan; Dallas, Texas; Denver, Colorado; Santa Rosa, California; and Seattle, Washington offices shall assume normal plant control office functions relating to the regional round robin circuits and act as network control as outlined in Section 660-201-010 for associated state warning circuits within their network. These offices will work closely with the Plant Network Manager, keeping him advised of unsatisfactory performance on their network and corrective procedures undertaken.

(c) ***Circuit Control Offices:*** Each state circuit Plant Control Office shall be responsible for normal plant control office functions for its particular State Warning Circuit. Form P1075,

Lost Time Report, will be forwarded to OCD Plant Network Manager in Washington, in addition to normal distribution. Each office shall keep complete and accurate logs of all actions taken by that office in connection with service or tests on these circuits.

7. RELEASES

7.01 ***State Circuits:*** Requests for releases for circuit order work for points on the State Warning Circuit will be handled as follows: The STC for the point involved will contact the Circuit Control Office who will request the release from the customer at the State Warning Point. If granted, he will so advise the STC. When the work has been completed, and local tests made, the STC will return the circuit to his customer and advise the Circuit Control Office. The control office will request the State Warning Point to transmit a test to the released point and any other points that could have been affected by a possible error in the completed circuit order.

7.02 ***Region Circuits:*** Requests for releases for circuit order work on the regional round-robin circuits will be handled as follows: The STC for the point involved will request a release from the control office. The control office will contact his controlling National Warning Center for permission before granting release. If release is granted, the control office will so advise the STC. When the work necessitating the release has been completed, the STC will return the circuit to his customer and request that he have his controlling National Warning Center transmit a test to his station to check continuity. The STC will then advise the Circuit Control Office, who will verify that the above test has been made.

8. LINE-UP

8.01 All circuits shall be lined up at regular intervals and shall be maintained within the transmission limits specified in Section 310-405-500.

8.02 Initial line-ups are to be made by the responsible control offices in accordance with standard circuit order test instructions per Section 310-405-500.

8.03 Monthly routine transmission tests shall be made on all warning circuits in the National Warning System. These tests shall include a check of switching arrangements made locally by all offices as well as overall tests by the Network Control offices. Return-loss measurements should be taken at this time. Deviations from limits specified in Section 310-405-500, 6.32 should be corrected expeditiously. Routine line-up procedure is shown in Appendix 2.

8.04 Circuits shall not be taken out of service for tests or any other reason without first obtaining a release from the customer's authorized contact for the particular circuit involved. The General Control Office shall be responsible for obtaining releases from the OCD National Warning Center 1 for the control circuit and the system as a whole. Network Control Offices will arrange for circuit releases involving Regional Warning Circuits from the customer's contact at the Regional Headquarters or the responsible NWC.

8.05 Releases requested should be short in length, and when obtained the circuit should be made good, if possible. If the circuit is not made good, it should be kept in such condition that it can be restored immediately upon request. This is essential because the circuit may be required by the customer at a moment's notice due to the nature of the business for which it is used. For the same reason, scheduled releases for routine tests may have to be delayed or postponed.

9. SERVICE MAINTENANCE

9.01 Circuit troubles should, in general, be handled in the standard manner. This requires that the circuit be released by the customer and removed from service for test purposes. Because loudspeakers are connected to the entire network at all points, it is important that testroom communications be restricted to the line facilities only.

9.02 Serving test centers receiving reports of circuit difficulties will immediately advise their circuit control office. This office will inform the appropriate National Warning Center and will arrange to keep the OCD customer advised on the progress of restoration.

9.03 In order that these circuits may be made good promptly in case of trouble, each control office should plan in advance various ways of patching and rerouting these facilities within its control responsibility. Arrangements should be made with assist offices for the ready use of such

pre-planned methods. This information should be attached to the circuit layout card. If at all possible, facilities similar to the regular layout should be used. Transmission on the patched layout should be as near the normal value as is feasible. It is suggested that all control offices have a monitor speaker dedicated to this service.

9.04 Visits to customer stations should be made semi-annually and in discussions with the customer emphasis should be placed on the following items:

(a) The necessity for maintaining proper adjustment of the loudspeaker volume control

(b) The importance of listening in the handset if no announcement is heard over the loudspeaker

(c) The requirement for pressing the push-to-talk button in the handset when acknowledging

(d) The need for reporting troubles promptly to the telephone company

(e) Proper operation of the footswitch and footswitch bypass arrangement

(f) Proper operation of the SS1 dial at points where installed.

9.05 Serving test centers and other bridging points should arrange for centralized location of circuit appearances for quick sectionalizing and patching, adequate designations and protective devices consistent with the importance of these circuits.

9.06 Close liaison should be established between the serving test centers and local telephone maintenance service groups to ensure adequate coverage and prompt handling of troubles, especially in relation to lunch periods, off-tours, vacations, Sundays and holidays.

9.07 Control offices are responsible for initiating procedures governing the reporting and handling of troubles in those cases where the serving test center is partially or completely uncovered.

9.08 Delays in the clearance of troubles are to be reported to the supervisor within fifteen minutes; to the Plant Manager for one-half hour delays; to the District Plant Manager on outages of one hour or more.

10. REPORTS

10.01 Reports should be forwarded in accordance with Section 002-300-909 LL except as specified in this section.

11. CLASSIFICATION

11.01 This system is classified as a ***military*** service and should be so treated.