

**NATIONAL WEATHER SERVICE INSTRUCTION 10-1711**

**APRIL 4, 2011**

*Operations and Services  
Dissemination, NDS 10-17*

**NOAA WEATHER RADIO ALL HAZARDS (NWR) SYSTEMS MANAGEMENT**

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**NOTICE:** This publication is available at: <http://www.nws.noaa.gov/directives/>.

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**Certified by:** W/OPS1 (D. Jones)

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**SUMMARY OF REVISIONS:** This directive supersedes NWSI 10-1711, *NOAA Weather Radio System Management*, dated January 29, 2009.

The following changes were made to the document:

- Section 2 has been revised to state the mission of the National Oceanic and Atmospheric Administration (NOAA) Weather Radio (NWR) and to better organize information and history about the system.
- In Section 3, changes have been made in coordination with OPS12 in locating the NWR management information into a single document. Currently, this information is duplicated within the National Weather Service instruction (NWSI) 30-2107. Their version varies from what was included here. OPS12 will change their directive in the future to just refer to this document, but changes were added to cover all the elements needed for the maintenance of the NWR system.
- In Section 3, final approval for local maintenance contracts and creation of new stations has been transferred to Weather Service Headquarters (WSH). This was done since all funding for these entities will need to come from WSH. WSH will also review and verify funding is available for ongoing operations.
- Section 5.1 was modified to remove references to specific groups or methods on how the signal from NWR might be used. These are socially or technologically based ideas which could change or be expanded, but are outside the scope of the NWR system. Some descriptive information about the system was moved to Section 2.
- In Section 10, more detail was added as to which responsibilities each Weather Forecast Office/Weather Service Office has in reporting outages and who they should be reporting them to.
- Removal of Appendix B-F: These appendices are removed as the documents referenced are now located within the NWR Internal Website.
- Major rewriting of some sections was performed to match the current processes and goals of NWR and to tie into other directives more clearly.

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Signed

March 21, 2011

Mark S. Paese

Date

Director, Office of Operational Systems

**NOAA Weather Radio All Hazards (NWR) Systems Management**

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1. Purpose of Document. This instruction describes how the National Weather Service (NWS) manages and operates the National Oceanic and Atmospheric Administration (NOAA) Weather Radio All Hazards (NWR) network.

2. Description. The NWR network consists of over 1000 very high frequency (VHF) Frequency Modulated (FM) radio broadcast stations located throughout the United States and its Territories, including Puerto Rico, U.S. Virgin Islands, Guam, and the Commonwealth of the Northern Marianas (Saipan) and American Samoa. Most stations are able to broadcast weather and non-weather related emergency messages and other routine content to receivers located within a 40 mile radius from the station. The broadcast provides advanced warning of potentially destructive and life-threatening situations, and gives NWR listeners time to protect family, home, and property.

2.1 Mission of NWR. The mission of the NWR network is to provide a continuous flow of timely weather forecasts, information, advisories, watches, and warnings as well as all-hazards (non-weather) warning information to 98 percent of the general public in the Primary Coverage Area (PCA) 99 percent of the time. The PCA is defined as the area enclosed by a received signal level contour of 8 micro volts per meter. Stations are designed to provide this level of signal at a nominal distance of 40 miles from the station. The size and shape of the PCA at each station is dependent on a number of factors, including the height and placement of the antenna on the tower, terrain and structures in the vicinity of the station, presence of large bodies of water in the immediate area, and transmitter output power. NWS personnel can activate Specific Area Message Encoding (SAME) within specific portions of a PCA.

Under normal circumstances NWR provides timely dissemination of weather forecasts and other meteorological and hydrological information to the general public. Under extreme conditions, where the public is at risk due to severe weather or other natural or man-made disasters, NWR provides alarms, specific information describing the threat(s), and recommended actions to be taken.

NWR is available to relay non-weather related hazard alerts received from authorized local, regional and national emergency management agencies (See Appendix A). NWR is part of the National Response Framework, managed by the Federal Emergency Management Agency (FEMA), which is an all-hazards approach to domestic incident response. This framework identifies the key response principles, as well as the roles and structures that are needed to organize a national response. NWR is also the primary activator of the Federal Communications Commission (FCC) Emergency Alert System (EAS).

Special receivers can trigger an audible alarm indicating an emergency exists for their area, alerting the listener to pay particular attention to the message being broadcast. Some of these receivers can operate in a muted mode and are automatically turned on when a warning message is received. Warning alarm or alert tone receivers and NWR SAME capable receivers are especially valuable for schools, stores, sport complexes, hospitals, public safety agencies, news media offices, and any other public gathering areas. The hearing impaired community receives weather and hazard warnings via NOAA Weather Radios using special alerting devices connected to their receivers such as strobe lights and pillow/bed vibrators. These warning devices plug directly to the NWR receiver and activate when a warning is received; the hearing impaired person then tunes their captioned television or computer to their normal source for

news to get complete details.

2.2 Components of NWR. NWR was originally established in the early 1970's. The number of discrete frequencies has grown from the original three to seven; allowing the NWR network to expand from 100 stations in the 1970's to over 1000 in 2008. Each station is remotely programmed from one of over 120 local Weather Forecast Offices (WFO). Some of these are denoted as Weather Service Offices (WSO). Each station consists of a radio frequency (RF) transmitter and an antenna interconnected with coaxial cable. Audio programming is delivered from a broadcast Console Replacement System (CRS) at the WFO/WSO by means of a telecommunication link to the transmitter. Telecommunication links include ultra high frequency (UHF) radio sets, private microwave networks, or commercial telephone circuits, depending on local circumstances. CRS units located at each WFO are identical. They are built on personal computer platforms and designed to prepare, store, schedule and simultaneously deliver up to 13 unique programs to station transmitters. Each CRS provides text-to-synthesized-voice conversion, an alert tone for triggering special receivers for severe weather, and other life threatening hazardous events, and an NWR SAME signal used to target specific portions of the PCA.

Since the network has been in service since the 1970s, station equipment configurations vary from station to station. Transmitters at each station vary in type, manufacturer, configuration, and power output. Antennas vary according to area needs. Antennas are generally omnidirectional but may be directional to avoid sending a signal into an area where it may cause interference, to increase the signal level in a certain area, or to otherwise comply with the station operating license issued by the Interdepartmental Radio Advisory Committee of the National Telecommunications and Information Administration. Most stations have emergency power available. Station facilities are owned by private companies, groups or individuals, or government organizations and are either leased or donated to the NWS. Maintenance and logistics are provided through numerous means including NWS Electronics Technicians (ET), the NWR National Maintenance Contract, regional and local maintenance contracts, or facility owner technicians.

3. Organizational Responsibilities. This section describes the responsibilities of the NWS Headquarters, Regional Headquarters, Weather Forecast Offices, and maintenance groups for NWR.

3.1 NWS Weather Service Headquarters (WSH). The Assistant Administrator (AA) for Weather Services has overall responsibility for the WSH NWR program.

3.1.1 Office of Operational Systems (OPS). OPS provides staff assistance to the NOAA AA for Weather Services for NWR program management and configuration control. OPS provides program and financial management as well as operational, engineering and communications support for NWR. OPS is responsible for providing oversight for the maintenance of the NWR system.

3.1.1.1 Dissemination Systems Branch of the Office of Operational Systems (OPS17). OPS17 has overall responsibility for the following:

1. Program management of the entire NWR network: This includes management of the

expansion of the system, financial overview of the operations and maintenance of the system, operating a National Website for NWR, and maintaining a national station database to manage the configuration for each station.

2. Contract management of the NWR transmitter acquisition contract and the National Maintenance Contract (NMC): A NMC Manager will be assigned as a focal point to provide technical management of the NMC. The NMC Manager will also manage all inquiries, issues, and assistance concerning these contracts. The NMC Manager will verify those items specified under the NMC are maintained to NWS standards and operational requirements.
  3. Engineering and technical support for NWR stations, including CRS units, telecommunications, and station components. This will include upgrades in technology and additional or remote monitoring systems.
  4. Configuration Management for the components of the NWR system located in the WFOs or at the transmitter stations. This includes tracking component locations, as well as establishing change management for replacement components within the system.
  5. Technical and system management liaison with NWR stakeholders, including NWS WSH, Regional Headquarters, WFO NWR focal points; equipment manufacturers; other Government agencies, and user communities. This will be accomplished through an NWR National Focal Point. The NWR National Focal Point is responsible for the NWR network, communications with the regions, cooperators, patrons, state and local governments, and for any resulting programmatic issues. The National Focal Point is also responsible for coordinating with the regional focal points to assist with station maintenance, relocation, configuration changes, and the addition of new stations to the network.
  6. Outreach to Government and private organizations and to the public regarding NWR.
- 3.1.1.2 Engineering and Acquisition Branch (OPS11). OPS11 supports frequency management of all NWR transmitters and RF telecommunication links.
- 3.1.1.3 Maintenance Branch (OPS12). OPS12 supports system corrective and preventative maintenance requirements and establishes procedures for conducting maintenance as described in NWSI 30-2107
- 3.1.1.4 Office of Operational System Software Branch (OPS23). OPS23 supports the hardware and software for the CRS running in each WFO which controls the broadcast signal running to each of the transmitters.
- 3.1.2 Telecommunication Gateway Operations Branch (OPS32). OPS32 has responsibility for the management of NWS telecommunication circuits and provides WSH support for any commercial telecommunications services needed by NWR.
- 3.1.3 Office of Climate, Water and Weather Services (OCWWS). OCWWS is responsible for establishing service requirements and instructions for NWR broadcast content and procedural

instructions as described in [NWS Instruction \(NWSI\) 10-1710](#), *NOAA Weather Radio (NWR) Dissemination*.

3.2 Regional Headquarters. Each Regional Headquarters is responsible for the program content of NWR within its region in accordance with OCWWS direction. It is also responsible for the management of expansion and upgrade efforts for NWR stations in its area of responsibility and for coordinating with WSH on these activities. It is the responsibility of the Regional Headquarters to coordinate with the WFOs for problems or operational changes and to forward to the NWR Program Manager at WSH (OPS17), any network, system maintenance, or end-user problems which cannot be resolved at the local or regional level. The Regional Headquarters are responsible for maintenance on all NWS-owned transmitters that are not covered by the NMC. The Regional Headquarters will provide WSH OPS1 (via memorandum with a copy sent to OPS17) the information concerning the designated focal point(s) for the region, local NWR maintenance contractors, WFOs, and non-NWS stations (station managers and any other personnel designated as NWR focal points for those stations to whom service calls may be initiated on a normal and emergency basis). The information contained in the memorandum should include the focal point's name, e-mail address, and telephone number(s).

3.2.1 Regional Telecommunications Managers (RTMs). RTMs are responsible for the acquisition and management of NWR telecommunications service used by NWR in their regions.

3.2.2 Regional NWR Focal Points. Regional NWR Focal Points are responsible for coordinating and managing the NWR radio frequencies within their areas of responsibility. This includes timely submission of coverage assessments and inter-modulation studies for new stations, submission of Requests for Frequency Assignments to OPS11, coordination with other NWR Focal Points when stations are in close proximity to common regional borders, resolution of interference problems, and to include coordination with counterparts in Canada or Mexico (as necessary) in accordance with established International Telecommunication Union (ITU) guidelines, and the policies and agreements signed by Department of Commerce (NOAA and NWS inclusive) and Department of State.

The Regional NWR Focal Point is responsible for initiating a proposal for NWR Network station additions, relocations, or configuration changes. The proposal identifies the type of station, recurring and non-recurring costs and responsibilities, justification, factors for consideration, and special circumstances. The proposal is submitted to the OPS17 Branch Chief and the NWR Configuration Manager for review and approval and then forwarded to OPS1 for approval of the new station into the system. These proposed changes are to be approved before the changes can be implemented. A template is provided on the NWR Internal Website.

3.3 Weather Forecast Offices. The NWS WFOs and WSOs are responsible for the daily operations and quality control of the NWR broadcast and are the main interface with the external end-user community. They are responsible for notifying the national maintenance contractor of transmitter system outages (if the station is maintained by the NMC) or notifying the regional maintenance contractor or local NWS ET, as appropriate. Outages are reported in USOS so WSH OPS17 can update the NWR outage webpage.

WFOs are responsible for supporting expansion and upgrade activities in their area. Each WFO/WSO is responsible for designating a NWR focal point. This focal point is responsible for

ensuring all NWR network equipment assigned to their office, by their respective region headquarters, is maintained in operational readiness according to established NWS policy, standards, and NWR operational requirements. NWR station, equipment, broadcast coverage, and contractor performance are routinely monitored by WFO/WSO focal points for quality assurance.

The local NWR focal point will coordinate and observe NMC work, as directed by the regional and national NWR focal points and the NMC Contracting Officer Representative (COR). The local NWR focal point will report back any discrepancies or issues as a result of NMC maintenance or emergency response.

The local NWR focal point will monitor and assist, as necessary, all state and local NWR stations and the respective contractors (if any) to ensure proper operation and maintenance of the NWR network and compliance with respective contracts or Memorandums Of Agreement (MOA). Monitoring may be performed through remote testing using operational systems, random or scheduled station inspections, or in conjunction with contractor follow-up during corrective/preventative maintenance. The local NWR focal point reports all findings and issues to the regional NWR focal point. If an NWR station goes off-line, the local NWR focal point is responsible for communication, coordination of assistance (if any), and reporting to the respective NWR focal points as to contractor performance to resolve the problem.

3.4 Regional, State, and Local NWR Maintenance Contractors. Specific work requirements by regional, state, and local contractors should be detailed within specific contracts. One copy of each current regional, state, and/or local NWR maintenance contract (including any and all subsequent updates, changes, addendums and modifications) should be sent to the National NWR focal point (OPS17). The respective Contract Officer's Technical Representatives (COTR) must keep the regional NWR focal point aware of all logistics and maintenance issues. The regional NWR focal point assists the responsible COTR to resolve any emergency or issue concerning NWR operation or maintenance within their region.

3.5 Non-NWS Owned, Operated, and Maintained NWR Station Support. This includes the personnel maintaining stations not owned, operated, or maintained by NWS, or covered by the NMC, region, or local NWS contracts. They may be covered by federal, state, or local contracts through state or local government agency. The technical Point of Contact (POC) works through the regional NWR focal point for all NWR network, station, and equipment related issues including testing and logistic support. POC information for the respective maintenance personnel (NWR station identification/station name, first and last name, e-mail, telephone number, emergency and contact number) should be collected and maintained at Regional Headquarters. The regional NWR focal point should update this contact list and submit a copy to OPS17 at the beginning of each fiscal year.

4. Broadcast Service Area. A broadcast service area for NWR transmitters is defined in NWS Instruction 10-1710, *NOAA Weather Radio (NWR) Dissemination*, Section 4. For the purpose of this document the broadcast service area is the specified transmitter PCA for each transmitter station.

5. Weather Products and Information. Information broadcast to the public is selected and prioritized based on the weather needs of the people in the service area, and in accordance with

the guidelines established in NWSI 10-1710, NOAA Weather Radio (NWR) Dissemination, and other applicable instructions.

5.1 Severe Weather Conditions. During severe weather, NWS personnel will, as required, interrupt the routine weather broadcasts and substitute warning messages or initiate live broadcasts. NWS personnel may also activate SAME coding within the PCA.

5.2 Non-Weather Related Emergency and Hazard Warnings. Messages concerning non-weather related emergencies and “all-hazards” type public warnings will be provided by authorized local, state, and Federal officials to NWS for dissemination. These messages and the means for their dissemination will comply with NWSI 10-1710, *NOAA Weather Radio Dissemination*, NWSI 10-1712, *Specific Area Message Encoding*, and NWSI 10-518, *National Non-Weather Related Emergency Products Specification*.

6. Access to NWR Broadcast. The NWR broadcast is available free of charge and can be received with any device capable of receiving one of the NWR radio frequencies. Activation of the device or any alerts from the device from the NWR broadcast is dependent on the strength of the signal at the location of the device. The NWS is not responsible for any devices used to trigger a warning from the NWR broadcast signal.

7. NWR Maintenance.

7.1 Authority. The WSH Dissemination Systems Branch (OPS17) performs a staff function within WSH, acting with authority delegated from the AA for Weather Services. It provides direction, assistance, resources, and other support to the regions as addressed in NDS 30-21, *System Maintenance*. WSH and Regional Headquarters manage the NWR maintenance program.

7.2 Transmitters. NWR transmitters are serviced under one of four types of maintenance support: the NMC, a state/local maintenance contract, by government personnel, or privately maintained through the cooperator.

1. The NMC is available for routine, corrective, and emergency maintenance services on NWR transmitters contracted by the NWS. NWR transmitters maintained by the NMC are specifically identified in the maintenance contract.
2. NWR transmitters, not under the NMC, are the responsibility of the local Weather Forecast Office with support, as required, from Regional Maintenance Specialists.
3. NWS regions unable to maintain some of their NWR transmitters through the NMC may contract with a local or regional entity to perform required maintenance on those transmitters, with the approval of OPS17. Where cost effective, transmitters should be maintained through the NMC or by Regional Maintenance Specialists to reduce the overall cost of maintenance on the NWR system.
4. Maintenance activities for transmitters owned by private interest groups (not considered under the previous three maintenance types) are the responsibility of the private interest group.



8. Cooperators. Cooperators such as local community organizations, state, city, or county government(s), private companies, etc., are encouraged to sponsor and fund the installation, operation and maintenance of new NWR stations. If funds are required to set up and maintain the private NWR station and are provided by a Cooperator, the NWS will assist in the analysis necessary for the siting and licensing of the NWR transmitter. Information on establishing a private NWR station is available from the OPS17 NWR Program Manager or the Regional Director at any of the NWS Regional Headquarters. A Broadcast Service Agreement will be established between the NWS and the Cooperator. Should a Cooperator wish to donate a transmitter to the NWS, formal acceptance of a donated transmitter is achieved in several different ways, depending on the type of transmitter purchase. The NWR Internal Website will direct NWS resources to the proper processes and forms to assist the Cooperator.

9. Agreements for Access to NWR Audio Output. Private and public TV and radio stations and other organizations can have access to the signal delivered by NWR. Such an arrangement is mutually beneficial and is encouraged. The station gets a high quality signal, and the NWS has a means of disseminating broadcast material even when the normal communications links and/or transmitter is out of service. Regional Headquarters have the authority to approve and execute agreements allowing users to obtain access to NWR audio output. There are two methods for a private party to obtain access to NWR audio output. One method is a line tap, in which a device is connected to the NWR CRS at the originating NWS office. The other method is a bridge tap, in which the telephone line from the CRS to the transmitter is tapped at the telephone company office. Templates for both of these types of agreements are maintained by WSH and located on the NWR Internal Webstation. Copies of signed agreements will be kept on file at the Regional Headquarters and appropriate WFOs, with a copy being forwarded to the OPS17 Staff and OS51 Dissemination Services Manager.

10. Notice of Station Outage. There are two types of outages: planned and unplanned.

10.1 Planned Outages. For planned Broadcast Outages and Suspension of Broadcasts, public notification procedures and rules for broadcast suspension due to radio interference are described in NWSI 10-1710, *NOAA Weather Radio (NWR) Dissemination*, Section 7.

10.2 Unplanned Outages. When NWR equipment is taken off the air for reasons other than planned maintenance or an unplanned outage occurs, weather and non-weather related emergency information will be available to television and radio media via NOAA Weather Wire Service (NWWS) and on NWS websites.

10.3 Internal NWS Notifications. There are two types of notifications to be reported internally.

10.3.1 Outages. All outages will be reported to the Regional Headquarters and OPS17 NWR Program staff, as quickly as time will allow. All unplanned outages will be submitted using the Unscheduled Outage System (USOS), reporting critical outages as spelled out in NWSI 30-2112, Reporting Systems Equipment and Communications Outages.

10.3.2 Broadcast Suspension. All broadcast suspensions will be reported to Regional Headquarters, OPS17 NWR Program staff, and OS51 Dissemination Services Manager, as soon as possible as described in NWSI 10-1710, *NOAA Weather Radio (NWR) Dissemination*,

Section 7.

11. NOAA's Weather Radio All Hazards Logo. The NOAA Weather Radio All Hazards logo is a graphic with the words "All Hazards" printed above the acronym "NOAA". Centered below the acronym "NOAA" is the product name, "Weather Radio". Centered below the product name, "Weather Radio", is the agency name, "NOAA's National Weather Service". Detailed information on the logo, its significance, and conditions and restrictions on its use can be found at the website: [www.weather.gov/nwr/allhazard\\_logo\\_info.htm](http://www.weather.gov/nwr/allhazard_logo_info.htm). An example of the logo can also be seen as a watermark in Appendix A of this Instruction and on the NWR Internal Website.

APPENDIX A: National Policy for the Use of Telecommunications to Warn the General Public

This Appendix includes the most recent affirmation (dated 06/11/02) by FEMA on the use of NWR as an all-hazard warning system and the original National Policy statement (dated 01/13/75) which establishes NWR as the only federally sponsored radio transmission of warning information to the general public.



## Federal Emergency Management Agency

Washington, D.C. 20472

June 11, 2002

John J. Kelly, Jr.  
Director  
National Weather Service  
National Oceanographic and Atmospheric  
Administration  
1325 East-West Highway  
Silver Spring, MD 20910

Dear Mr. Kelly:

I am writing to express my support for using National Oceanographic and Atmospheric Administration (NOAA) weather radio for civil emergency messages involving all hazards, not just weather-related ones. Through NOAA weather radio, we have a capability in place that can help save lives. We owe it to the public, as stewards of public safety and of tax dollars, to make maximum use of that capability.

In fact, this Agency already relies on the National Weather Service (NWS) for all-hazard warning to the public. Under Emergency Support Function #2 of the Federal Response Plan, a responsibility of NWS is to "Provide public dissemination of critical pre- and post-event information over the all-hazards National Oceanographic and Atmospheric Administration Weather Radio (NWR) system, the NOAA Weather Wire Service, and the Emergency Managers' Weather Information Network (EMWIN)." This is part and parcel of authority granted to the President under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, and delegated to the Director of the Federal Emergency Management Agency (FEMA), to "utilize ... any other Federal communications system for the purpose of providing warning to governmental authorities and the civilian population in areas endangered by disasters" (42 USC 5132 (c)). Under Title VI of the same Act, it is within the FEMA Director's authority to "make appropriate provision for necessary emergency preparedness communications and for dissemination of warnings to the civilian population of a hazard." (42 USC 5196(d)).

I believe use of NOAA weather radio for all-hazard warning to the public is consistent with the Federal Response Plan, the FEMA warning-related authorities I have cited, and good government. As a coordinator of Federal preparedness and response efforts, I support your initiatives to ensure NOAA weather radio is an all-hazard warning system, and I will gladly work with you to integrate your initiatives into our overall preparedness and response program.

Sincerely,

Joe M. Allbaugh  
Director

OFFICE OF TELECOMMUNICATION POLICY (OTP)  
EXECUTIVE OFFICE OF THE PRESIDENT  
WASHINGTON D.C. 20504

January 13, 1975

NATIONAL POLICY FOR THE USE OF TELECOMMUNICATIONS  
TO WARN THE GENERAL PUBLIC

In November 1971, the Federal Government completed a review of national policies and programs for use of telecommunications to provide the American public with warning of an enemy attack or of natural disasters. It was established at that time, in a statement of national policy respecting home warning systems, that the acquisition and use of any warning receiver should be a voluntary decision by each citizen. Studies conducted since 1971 have led the Government to update and reaffirm that policy.

It now has been established that in addition to the voluntary use of a warning receiver, public interest would be served best by a single, Government-operated system for warning citizens in their homes of enemy attack or a natural disaster. In this regard, the National Oceanic and Atmospheric Administration (NOAA) Weather Radio (NWR) will be the only federally sponsored radio transmission of warning information to receivers optionally available to the general public.

The 1971 OTP policy statement committed the Federal Government to pursuing a program that would "establish a rapid, reliable warning capability, and... bring the cost of a warning receiver within reach of every American citizen." To this end, a series of tests and studies were initiated to explore several proposed home warning systems and market demands for home receivers. During 1974, the results of these studies were reviewed by the Warning Steering Committee, an interagency group chaired by the OTP, and including representatives of NOAA, the Defense Civil Preparedness Agency (DCPA), the Federal Communications Commission, the Office of Preparedness, and the Department of Transportation (DOT).

The studies focused primarily on two alternative home warning systems. The first is the Decision Information Distribution System (DIDS) of the Department of Defense. Designed originally for enemy attack warning, its scope could be expanded to include warning citizens of natural disasters. The second system is the National Weather Service's (NWS) VHF/FM Tone Alert System. (The NWS is an agency of NOAA.) This system already is operational for weather forecasting and incorporates a special tone alert signal permitting receivers to be activated automatically if desired by the owner.

After analyzing these studies, OTP concluded that the NWR is the best choice for priority expansion, and it will serve as the single national home warning system. The reasons for this are:

- (1) NWR provides routine daily weather services, tailored to local areas, thereby enhancing the marketability of receivers:
- (2) Federal investment required to complete NWR coverage of most populated

areas will be much less than the investment required to complete the DIDS transmitting system, and NWR coverage can be accomplished much sooner; and

- (3) Inexpensive commercial receivers for this system are already on the market.

The development of alternative systems, if allowed to continue unchecked, could result not only in a needless proliferation of home warning systems but could also effectively split the market for receivers because of different technologies, which in turn, might keep receivers so expensive as to be a serious obstacle to widespread voluntary purchase. Therefore, in order to avoid duplication, public confusion, and unnecessary future financial burden on the public (as consumers and taxpayers), the NWR will be the only federally sponsored radio transmission of warning information to receivers optionally available to the general public. Other systems such as the DIDS should no longer be considered candidates for this function.

The market demand studies for home receivers indicated that many citizens would voluntarily purchase receivers capable of receiving home warning (if one were available); but the total number of households with such receivers would not, for the foreseeable future, constitute a majority of the population. Therefore, this policy recognizes that Government-operated home warning systems, with voluntary purchase of the receiver can only supplement other existing warning systems.

The Warning Steering Committee, chaired by the OTP, will coordinate efforts for the use of telecommunications for warning capability. In support of this effort, NOAA and DCPA will develop necessary plans to use the NWR as a supplementary attack/warnings system and will further develop plans and procedures to incorporate the civil defense siren systems into the consolidated warning system, as well as to maximize the provision of warning information to radio and TV stations.