



Prince William County
ARES®/RACES

Emergency Response Manual





Prince William County (Virginia) ARES®/RACES Plan of Operations



Version 2.5.1 Updated 19 January 2007
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1. Introduction

1.1 The Prince William County Amateur Radio Emergency Service® (ARES®) and the Prince William County Radio Amateur Civil Emergency Service (RACES), sometimes referred to as PWCARES, is a joint team composed of FCC-licensed Amateur Radio operators who have voluntarily registered their capabilities and equipment for public service communications duty.

1.2 Under Federal regulations, Amateur Radio public service communications are furnished without compensation of any kind.

1.3 The Prince William County ARES®/RACES team functions under this Plan of Operation and the direction of the ARES® Emergency Coordinator of Prince William County.

1.4 The EC may appoint additional assistant Emergency Coordinators or assistant RACES Officers as needed for ARES®/RACES to function efficiently.

2. Purpose

2.1 The purpose of this plan is to provide a written guide containing the information that would be needed to properly prepare for and react to an emergency. Because each emergency is different, flexibility is required to provide an adequate response in each situation.

2.2 The primary responsibility of Prince William County ARES®/RACES is to furnish communications in the event of a disaster or communications emergency when other communications fail or are inadequate.

2.3 All drills, training and instruction shall be carried out to insure readiness to respond quickly and effectively to provide amateur radio emergency communications whenever an occasion may arise.

2.4 The following agencies could be served during a communications emergency: Prince William County government; the Cities of Manassas and/or Manassas Park; the Prince William County chapter of the American Red Cross; Prince William County Hospital; Potomac Hospital; FEMA; other ARES®/RACES teams requesting support; other agencies, organizations and groups not listed here and requesting assistance.

3. Definitions

3.1 Status Definitions. The following status levels have been defined:

Normal:

Normal is the day-to-day status of the ARES® team. ARES® members are assumed to be going about their normal activities and an activation could take 2 - 4 hours to call up a team. Even during a normal status, members are expected to have their go-kits in a prepared state, although last minute items may not be included.

Ready State:

A go-kit in a ready state is assumed to be packed, or nearly packed, with deep-cycle batteries (where applicable) on the charger. It is also assumed that some last minute items are not included but are on hand.

Stand-by:

Stand-by status is a pre-call up mode. Members are assumed to have all last minute items on hand or already packed, batteries may still be on the charger. A rapid shift to active should be anticipated.

Active:

Prince William County ARES® is in active call up. Nets are being organized or are active. The EC team is in communications with the associated agency and deployment is immanent or underway. Go-kits are packed, batteries and supplies are loaded. The active state will last through the final demobilization.

3.2 Other Definitions

CERT: Community Emergency Response Team(s). The FEMA (DHS) CERT program educates people about disaster preparedness for hazards that may impact their area and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations. Not to be confused with the CERT® which is the Computer Emergency Response Team, tasked with providing responses to cyber security issues and is associated with Carnegie Mellon University.

DHS: Department of Homeland Security. Created in reaction to the September 11, 2001 attacks, DHS is the Cabinet-level agency tasked with preventing terrorist attacks within the United States, reducing America's vulnerability to terrorism and minimizing the damage from potential attacks and natural disasters.

EC Team:

The EC Team is composed of the Emergency Coordinator and the Assistant Emergency Coordinator(s) (AEC) in Prince William County. During an emergency, in the absence of the Emergency Coordinator, the AEC designated shall take initial control and establish a rotation of Coordinators to facilitate management of the incident.

ECIC: The EC-in-Charge. This is the member of the EC Team currently on-duty.

EOC: Emergency Operations Center. This is usually defined as Prince William County's EOC, located at mid-county or where established by the county. Each hospital in the county also has an EOC as does the Prince William County chapter of the Red Cross. These EOCs will be defined where they differ from the county EOC.

FEMA: Federal Emergency Management Agency. Originally the only federal agency tasked with providing support during natural disasters, FEMA is now part of DHS and continues to provide training and programs for managing and coping with disasters.

Home-based:

Those members of PWCARES that are generally unable to deploy to a location, but have a functioning station at home and are in position to act as liaison, NCS or in some other purpose.

ICP: Incident Command Post. The on-site command post.

ICS: Incident Command System. The ICS is a management system designed to enable effective and efficient domestic incident management by integrating a combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure, designed to enable effective and efficient domestic incident management. A basic premise of ICS is that it is widely applicable. It is used to organize both near-term and long-term field-level operations for a broad spectrum of emergencies, from small to complex incidents, both natural and manmade. ICS is used by all levels of government - Federal, State, local, and tribal - as well as by many private-sector and nongovernmental organizations. ICS is also applicable across disciplines. It is normally structured to facilitate activities in five major functional areas: command, operations, planning, logistics, and finance and administration.

NCS:

Net Control Station. During a formal net, the NCS is in charge of all traffic and communications occurring on the net. All traffic is to pass through the NCS station as managed. The NCS is also the chief record keeper in the form of logs of all traffic on the net during the operational period.

NCS Period:

Every effort will be made to keep an ARES® Net Control operational periods to no more than 4 hours.

NIMS: National Incident Management System. A system to provide a consistent nationwide approach to work effectively and efficiently together to prepare for, prevent, respond to and recover from domestic incidents, regardless of cause, size, or complexity (from Presidential Directive HSPD-5 and the National Incident Management System directive)[posted at http://www.fema.gov/pdf/nims/nims_doc_full.pdf]

NTS:

National Traffic System. NTS is both a method for passing messages into and out of the area and is used to define the structure of the message. Formal NTS traffic will follow the guidelines of the ARRL for the standard Radiogram form and the associated Field Service Documents (FSDs). All members of PWCARES are *expected* to know and understand all aspects of NTS traffic handling.

NRP: National Response Plan. The NRP is built on the template of the National Incident Management System (NIMS), which provides a consistent doctrinal framework for incident management at all jurisdictional levels, regardless of the cause, size, or complexity of the incident. The activation of the NRP and its coordinating structures and protocols - either partially or fully - for specific Incidents of National Significance provides mechanisms for the coordination and implementation of a wide variety of incident management and emergency assistance activities. Included in these activities are Federal support to State, local, and tribal authorities; interaction with nongovernmental, private donor, and private-sector organizations; and the coordinated, direct exercise of Federal authorities, when appropriate. [posted at http://www.dhs.gov/dhspublic/interweb/assetlibrary/NRP_FullText.pdf]

OES:

Official Emergency Station. Any station that has registered with the ARRL and has met the requirements for an OES as set forth.

ORS:

Official Relay Station. Any station that has registered with the ARRL and has met the requirements for ORS as set forth.

Official Emergency Stations and Official Relay Stations are functionally the same, but serve different purposes. OESs are primarily dedicated to ARES® functions while ORSs are dedicated to NTS functions. Under PWCARES, both are recognized as vital to the overall success of the mission and are to be utilized where possible. All members of PWCARES are encouraged to register as an OES/ORS if they meet the requirements.

Operational Period:

Prince William County defines an operational period as 12 hours, from 7 to 7.

Operator Period:

Every effort will be made to keep an ARES® operator period to no more than 6 hours.

SET:

Simulated Emergency Test. Every year in October, the ARRL encourages ARES® teams to participate in a SET. The purpose is to simulate, as closely as possible the issues and events that might occur during a real emergency. The SET can be conducted in conjunction with emergency management agencies but does not have to. While it should simulate a real emergency, a SET can be a table top or field exercise.

Skywarn:

The Skywarn network is a team of amateur radio operators and frequencies who have received special training from the National Weather Service in spotting and reporting severe weather. All members of PWCARES are encouraged to become Skywarn spotters.

Traffic:

Traffic refers to amateur radio communications. This can be in either tactical (informal) or written (formal/NTS/ICS-213) form.

VEN/x:

The Virginia Emergency Net(s) are a series of predesignated frequencies to be utilized in the event of state-wide communication emergencies. Each network is dedicated to a specific mission and purpose and identified by an alphabetic letter following the slant. Most emergency phone operations take place on the VEN/A, also known as the Old Dominion Emergency Network (ODEN). Management of the VEN is controlled by the Section Emergency Coordinator and the Section Traffic Manager.

4. Activation of the Plan

4.1 Upon notification from an authorized representative of a served agency, the plan will be activated. If no notice is given and it is apparent that a disaster or communications emergency is imminent or existing, the EC Team shall contact the served agencies offering ARES® support and activate the action plan if a need is indicated.

4.2 Automatic Activation

4.2.1 Severe Weather. Because severe weather can strike without warning, automatic activation of this plan can occur under the following conditions:

4.2.1.1 Watches. When the National Weather Service (Sterling) issues a watch for severe

thunderstorms, tornados, hurricanes, or ice storms in the local area, ARES® members are to check their gear and where needed, pick up any last minute items. No further activity is required.

4.2.1.2 Warnings. If the National Weather Service (Sterling) issues a warning for severe thunderstorms, tornados, hurricanes, or ice storms, the plan is assumed to be activated and members are to move to a *stand-by* status. Further, because of the potential for loss of normal communications, members are encourage to tune their radios to either 146.970 - or 147.240 +.

4.2.1.3 Termination. A termination of the Watch or Warning shall constitute a termination of status, **unless** continuation is warranted as a result of the severe weather, at which time the EC Team will stand down the ARES® team at the end of service.

4.2.2 Terror Threat Level. The Department of Homeland Security can adjust the National Terror Threat level without warning. The following threat levels are aligned with the plan as follows:

4.2.2.1 **Yellow or Lower:** A threat level of *Green, Blue* or *Yellow* is considered to be *Normal*

and activation of the plan is at the discretion of the EC Team in support of a specific request. Tests of the email alert list will occur monthly as required.

4.2.2.2 **Orange:**

At threat level Orange, the plan is activated in an extended stand-by mode. Batteries should be charged or on the charger, go-kits should be prepared and restocked and last minute items should be acquired. Where possible, ARES® members should carry their go-kits with them at all times. The EC Team is expected to have a radio with them at all times (where possible) and should monitor the repeaters. Tests of the email alert list will occur weekly.

4.2.2.3 **Red:**

At threat level Red, the plan is considered activated. All ARES® members shall prepare for immediate call-up once ensuring to the safety of their home and family. Radios shall be tuned to either 146.970 - or 147.240 +. A call-up or status change will be issued by the EC Team as indicated in consultation with the served agencies.

4.3 Call up of members in support of this plan shall be by all means available, including but not limited to telephone, email, text messages, and repeater alerting.

4.4 Upon notification, members will check into the net frequency assigned by the EC Team for instruction and deployment locations.

4.5 **No ARES® member is to deploy without explicit instructions to do so.** In the event of an activation, manpower needs will be communicated to the Logistics NCS station, located on the repeater furthest from the incident. Every attempt will be made to deploy personnel to a location closest to their location, or to match their training with the need.

4.6 The EC Team will assign net control (NCS) duties as required. NCS will be operated from a station secured from the incident, preferably where commercial power is available. NCS stations should be certified as Official Emergency Stations as appropriate. At no time will the NCS be physically located at the EOC (including Potomac Hospital, Prince William Hospital, PWC EOC, Manassas City EOC, Red Cross or Shelter location) or the Incident Command Post (ICP). The NCS sole duty shall be controlling the net they are assigned to. Instructions issued by the NCS shall be assumed to originate with the

member of the EC Team in Charge (ECIC)

4.7 Where practical, the ECIC shall have a *shadow* (operator) to handle radio operations, including the coordinator at the ICP and EOC.

5. Operations

5.1 Duty Period: Members should be prepared to operate for no less than a six hour period (*operator period*). Depending on the nature of the event, a maximum 12-hour period may be required. Where possible, operators will be released to return to their homes between shifts.

5.2 Liaison Stations:

During any emergency, liaison stations will be required. OES/ORS shall check in with the logistics net, reporting their status and availability. Stations already in contact with surrounding jurisdictions are also encouraged to check in with the logistics net.

5.2.1 Liaison shall be established as soon as possible with the following agencies/nets, depending on the status of the incident:

VEN/A: the Virginia State Emergency Net.

Skywarn: serving the National Weather Service.

Surrounding counties: as needed to provide support and request aid.

Maryland Region: as needed to provide support and request aid.

Liaison stations shall be located in a similar manner as net control stations - as far from the incident as possible.

5.3 In the event of a formal RACES activation, the team shall subordinate themselves to the authority of the Emergency Manager or designee that has requested RACES support (Prince William County) as detailed in the MOU. The ECIC becomes the RACES Officer at that point and may designate an ECIC to manage any ARES needs.

5.4 Logging:

All ARES® personnel shall log significant events, message traffic and other items of interest and import. The *NIMS* standard shall be followed and *ICS* form 214a (Individual log) shall be used unless otherwise directed by the ECIC. Each member shall include at least 5 blank pages in their go-kit at all times. Plain paper may be used for follow-on logging in the event a member exceeds the number of pages carried.

5.4.1 The ECIC shall maintain a list of significant events on form 214, including the name and call sign of all operators, the beginning and end of each shift, and the duty station of each person.

5.4.2 All logs are to be turned in at the end of the operation, or as requested. At the conclusion of the incident, all logs shall be turned over to the EC.

5.5 Traffic:

All formal traffic shall be logged. Traffic will be transmitted in the form received from the issuing agency. All members shall be proficient in the use of the ARRL radiogram as well as the *ICS* form 213 (General message form) and have at least five of each for reference in their go-kit.

5.5.1 All formal traffic shall include the signature and title of the sender (where appropriate) who originated it, thus taking responsibility for the message and its contents.

5.6 All traffic on the net shall give way to EMERGENCY traffic, whether formal or tactical.

5.7 ICS Forms:

All ARES members shall be familiar with the following additional ICS forms: 205, 205a. All ECs/NCS shall also be familiar with 201-204, 211, 216, 217.

5.8 All ARES® members are encouraged to become familiar with *ICS* as represented within *NIMS*.

5.9 Media Relations:

ARES® team members are not to speak to the media. In a coordinated activation, all media inquiries are to be directed to the media relations liaison or public information office (PIO)/joint information center (JIC) of the served agency(s). In an activation without a media relations liaison, all media inquiries are to be directed to the ECIC or the EC.

6. Deactivation, Demobilization and Post Operations

6.1 At the end of each shift and at the end of each ICS Operations Period, each participant shall be debriefed by the ECIC. This debrief may be written or oral and shall include original logs from the shift for record keeping and legal purposes.

6.2 At the end of each shift and at the end of each ICS Operations Period, the ECIC shall debrief and be debriefed by the served agency as required.

6.3 Upon notification from a representative of the activating agency or at the request of the ECIC, operations may be deactivated.

6.4 Notification of deactivation shall come from the ECIC as formal traffic. Notification shall be made to all stations, including liaison stations through whatever communication channels are available. Nets shall be secured in an orderly manner based on reduced need. Confirmation of deactivation shall be routed to the ECIC and the EC.

6.4 Demobilization may be accomplished by any means available at the time of the deactivation. Dissemination of deactivation shall be commensurate with the communications paths available at the time.

6.5 It is the responsibility of the ECIC to gather a report of operational details related to their portion of the operation. These details shall include, but are not limited to:

1. Description of event or activity.
2. A list of participants and their operational locations, shift times, assigned duties, and duties performed.
3. An activity log for each location and from each Net Control Station for each net and location. This log shall include:
 - A listing of what went well and what needs improvement;
 - A discussion of how to correct deficiencies for the next operation;
 - A discussion of lessons learned;
 - Annotation of ancillary items, as appropriate, including such things as personnel conflicts, accidents involving personal injury, damage or loss of personal property, illness, etc.;
 - Notation of any property moved or removed from the operating position to facilitate communication functions;
4. A message log for each location and from each Net Control Station. This may be combined with the activity log.

6.6 It is the responsibility of the Emergency Coordinator to compile the operational details into a final

after action report to be made available to the general membership no more than 72 hours after the cessation of activity. This written report shall be subject to amendment and update as needed. Serious deficiencies and training issues shall be dealt with at the first opportunity.

7. Drills, Tests, and Alerts

7.1 Required Training

7.1.1 Federal and county regulations require the following certifications by all members of the PWCARES cadre:

IS-700 National Incident Management System (NIMS)

7.1.2 Additionally, the following certifications are required for all personnel responding to county facilities:

IS-100 Incident Command System

IS-200 ICS for Single Resources and Initial Action Incidents

7.1.3 Home-based operators, while not required to have IS-100/IS-200 are strongly encouraged to get these certifications

7.1.4 Members of the leadership team and other identified operators must also possess:

IS-800 National Response Plan

7.2 All team members are required to learn the forms related to the Incident Command System. At the very least, 213 - General Message, 214 - Unit Log, 214a - Individual Log, and 205 - Incident Radio Communications Plan should be understood and used by all members.

7.3 All team members are encouraged to practice their skills. Training in the NTS system can be obtained by participating in the Northern Virginia Traffic Net (NVTN) which is held nightly on 147.300. All members are encouraged to practice sending formal traffic at least 4 times per year. Members are also encouraged to participate in the ARRL Emergency Communications Course (ARECC) and achieve at least Level I certification. Net Control Stations are expected to achieve Level II.

7.4 Prince William County ARES® will supply public safety communications in conjunction with local events to test the deployment and operational capabilities of its members and to provide a service to the community. This may be in conjunction with local clubs as required.

7.5 Four times per year there will be a call up. This call up will be unscheduled and will constitute a test of the communications tree.

7.6 When possible, Prince William County ARES® will operate a Field Day station from the Prince William County EOC as part of a yearly test of facility. This test will occur with the concurrence of the Prince William County Emergency Manager or designee.

7.7 When possible, Prince William County ARES® will test fixed stations at least yearly.

7.8 An annual simulated emergency test will occur. It may be conducted in October in conjunction with the ARRL Simulated Emergency Test and the SET may be localized or conducted in cooperation with surrounding teams.

7.9 Additional training opportunities may become available as specific needs and personnel interests develop.

7.10 Training shall include classroom study, field exercises and may include audio-visual material developed specifically for such purposes and made available by sponsoring organizations.

7.11 Any relevant training undertaken by members should be reported to the EC for tracking purposes. A list of pre-approved training will be posted at the beginning of each year. Other training may be approved by the EC as required or relevant.

8. Regional Support

8.1 Prince William County ARES® may be called upon to support activities in surrounding jurisdictions. The call for support may be an informal request for help from a neighboring EC, or a formal request from the Section Emergency Coordinator.

8.2 At no time should help offered to a neighboring jurisdiction impact ongoing operations.

8.3 In the event of a regional activation, the EC in affected jurisdiction shall have overall authority for deploying resources. Refer to the National Capital ARES® Council plans for details.

8.4 CERT Support.

Prince William County and the City of Manassas Park have standing Community Emergency Response Teams (CERT). These teams' primary mission is to provide aid and comfort to members of their community and the County at large in times of large scale disasters or other situations that overutilize county emergency resources.

8.4.1 In the event that normal communication channels are unavailable, CERT members have been directed to utilize ARES®.

8.4.2 Communications through the ARES® system will occur in these ways:

8.4.2.1 *Indirect.* The *EC Team* will identify those ARES® members that are generally *home-based* to act as liaison stations for the CERT Teams. Communications will be by FRS/GMRS radios (with the CERT Teams) or by other method, including face-to-face. Traffic will then be relayed to the appropriate agency through normal ARES® channels.

8.4.2.2 *Direct.*

CERT members that are licensed Amateur Radio operators shall be trained in the protocols and operating procedures used by PWCARES and shall be considered part of the overall system. These CERT members shall not be considered part of PWCARES for ARES® activation purposes unless they so choose to register with PWCARES.

8.5 All ARES® members shall become familiar with CERT forms, especially the message form and other data transmission forms. Where possible, collected data will be sent by packet.

Comments and questions can be directed to the Emergency Coordinator, Prince William County ARES®/RACES.

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Prince William County ARES®/RACE Frequencies

Name	Frequency	Purpose
LOG	146.970- or 147.240+	Logistics Net
OPS	147.240+ or 146.970-	Operations Net
VHF1	147.525	Primary Simplex Operations Net
VHF2	146.475	Secondary Simplex Operations Net
CnC	445.925	Command and Control
MEDCOMM	146.445	NOVA Medcomm
REDCROSS	146.535	Chapter-to-chapter Red Cross communication
REDCROSS	147.420	Red Cross on-site communications
OVH220	224.660-	W4OHV 220 Repeater (may be tied to Logistics Net or used for command and control.)
OVH440	442.200+	W4OVH 440 Repeater (maybe tied to Logistics Net, used for command and control or Primary Tactical Net.)
WWI220	224.780-	WWI 220 Repeater (may be tied to Logistics Net or used for command and control.)
WWI440	444.900+	WWI 440 Repeater (maybe tied to Logistics Net, used for command and control or Primary Tactical Net.)
FAIRFAX	146.790-	Fairfax ARES Logistical and Operational Net
NCAC VA	146.910-	Washington Metro Regional Logistical Net (VA)
NCAC MD	147.105+	Washington Metro Regional Logistical Net (MD)
SKYWARN	147.300+	Skywarn/Dist 2/NVTN Regional Repeater
PACKET	145.030	W4OVH Packet Node
VEN/A	3947 kHz ALT 7240 kHz	VA State HF Emergency Net

National Capital ARES® Council Frequencies

Jurisdiction	Primary Repeater	Secondary Repeater	Simplex	Packet
Maryland Region	147.105	146.730	3920 kHz	144.390 (APRS)
Anne Arundel	146.805	147.105		145.750
Calvert	146.985 PL 156.7	147.195 PL 156.7	146.580	
Charles	145.390 PL 186.2	443.700		
District of Columbia	145.430	147.045	146.505	
Frederick	147.060			
Hagerstown	147.090			
Montgomery	146.955	145.450	146.460	145.750
Prince George	146.610	146.880 and 147.150 PL 114.8	147.540	145.750
Skywarn	147.300			
Towson	147.030			145.730
American Red Cross (Chapter to Chapter)			146.535	
American Red Cross (On-Site)			147.420	
Baltimore Traffic Net	146.670			

Jurisdiction	Primary Repeater	Secondary Repeater	Simplex	Packet
Virginia Region	146.910 (Primary) 147.300 (ALT/liaison) 145.210 PL 141.3 (Western Counties)		3947 kHz 7240 kHz (ALT)	145.73 144.390 (APRS)
Alexandria	146.655 PL 141.3	147.315	146.490	
Arlington	445.150	449.325 PL 151.4	445.959	
Fairfax	146.790	146.910 and 224.100	146.415	
Falls Church	447.425 PL 91.5	147.210	147.540	
Fauquier	147.165			
Loudoun	145.310	443.225 PL 103.5 (Portable) 147.330 PL 203.5 (Dulles Airport 15W)	147.480	
Prince William	146.970 (Manassas) 147.240 (Woodbridge)	444.900 (Woodbridge) 442.200 (Manassas)	147.525 (Primary) 146.475 (Secondary) 445.925 (Secondary)	145.730 (1200)
Skywarn	147.300			
Medcomm			146.445	145.730
American Red Cross (Chapter to Chapter)			146.535	
American Red Cross (On-Site)			147.420	
Northern Virginia Traffic Net	147.300			

These tables represent the NCAC Coordinated frequencies for ARES®/RACES nets in the Greater Metro Washington, DC area. In the event of a regional emergency in Maryland, logistics support will be requested on 146.910 (VA). In the event of a regional emergency in Virginia, logistical support will be requested on 147.105 (MD).

Corrections and additions may be submitted by ECs and/or ROs to David Lane, KG4GIY (kg4giy@arrl.net). The most current frequency list can be found at <http://www.ncadc.com/>. In the event of an emergency, tune your radio to the logistics frequency and check in as instructed.

DO NOT deploy to the emergency zone without explicit instructions.

Updated 4 October 2006

US Amateur Radio Bands

US AMATEUR POWER LIMITS

At all times, transmitter power should be kept down to that necessary to carry out the desired communications. Power is rated in watts PEP output. Except where noted, the maximum power output is **1500 Watts**.

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KEY

- Note:**
CW operation is permitted throughout all amateur bands except 60 meters.
MCW is authorized above 50.1 MHz, except for 219-220 MHz.
Test transmissions are authorized above 51 MHz, except for 219-220 MHz.
- = RTTY and data
 - = phone and image
 - = CW only
 - = SSB phone
 - = USB phone only
 - = Fixed digital message forwarding systems only

- E** = Amateur Extra
- A** = Advanced
- G** = General
- T** = Technician
- N** = Novice

See *ARRLWeb* at www.arrl.org for more detailed band plans.

ARRL We're At Your Service

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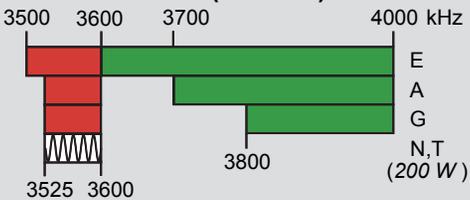
Getting Started in Amateur Radio:
Toll-Free 1-800-326-3942 (860-594-0355)
email: newham@arrl.org

160 Meters (1.8 MHz)

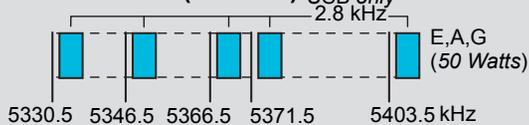
Avoid interference to radiolocation operations from 1900 to 2000 kHz



80 Meters (3.5 MHz)



60 Meters (5.3 MHz)



General, Advanced, and Amateur Extra licensees may use the following five channels on a secondary basis with a maximum effective radiated power of 50 W PEP relative to a half wave dipole. Only upper sideband suppressed carrier voice transmissions may be used. The frequencies are 5330.5, 5346.5, 5366.5, 5371.5 and 5403.5 kHz. The occupied bandwidth is limited to 2.8 kHz centered on 5332, 5348, 5368, 5373, and 5405 kHz respectively.

40 Meters (7 MHz)



† Phone and Image modes are permitted between 7075 and 7100 kHz for FCC licensed stations in ITU Regions 1 and 3 and by FCC licensed stations in ITU Region 2 West of 130 degrees West longitude or South of 20 degrees North latitude. See Sections 97.305(c) and 97.307(f)(11). Novice and Technician licensees outside ITU Region 2 may use CW only between 7025 and 7075 kHz. See Section 97.301(e). These exemptions do not apply to stations in the continental US.

30 Meters (10.1 MHz)

Avoid interference to fixed services outside the US.



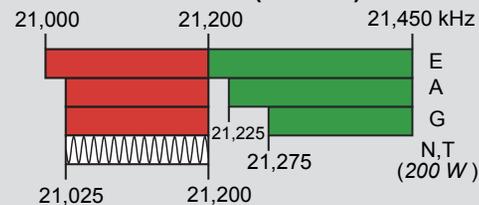
20 Meters (14 MHz)



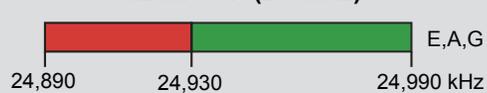
17 Meters (18 MHz)



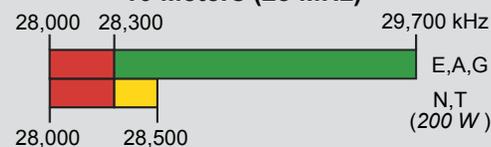
15 Meters (21 MHz)



12 Meters (24 MHz)



10 Meters (28 MHz)



6 Meters (50 MHz)



2 Meters (144 MHz)



1.25 Meters (222 MHz)



* Geographical and power restrictions may apply to all bands above 420 MHz. See *The ARRL Operating Manual* for information about your area.

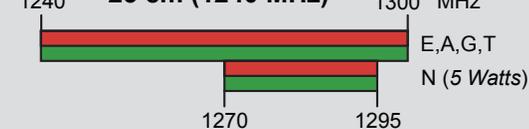
70 cm (420 MHz)*



33 cm (902 MHz)*



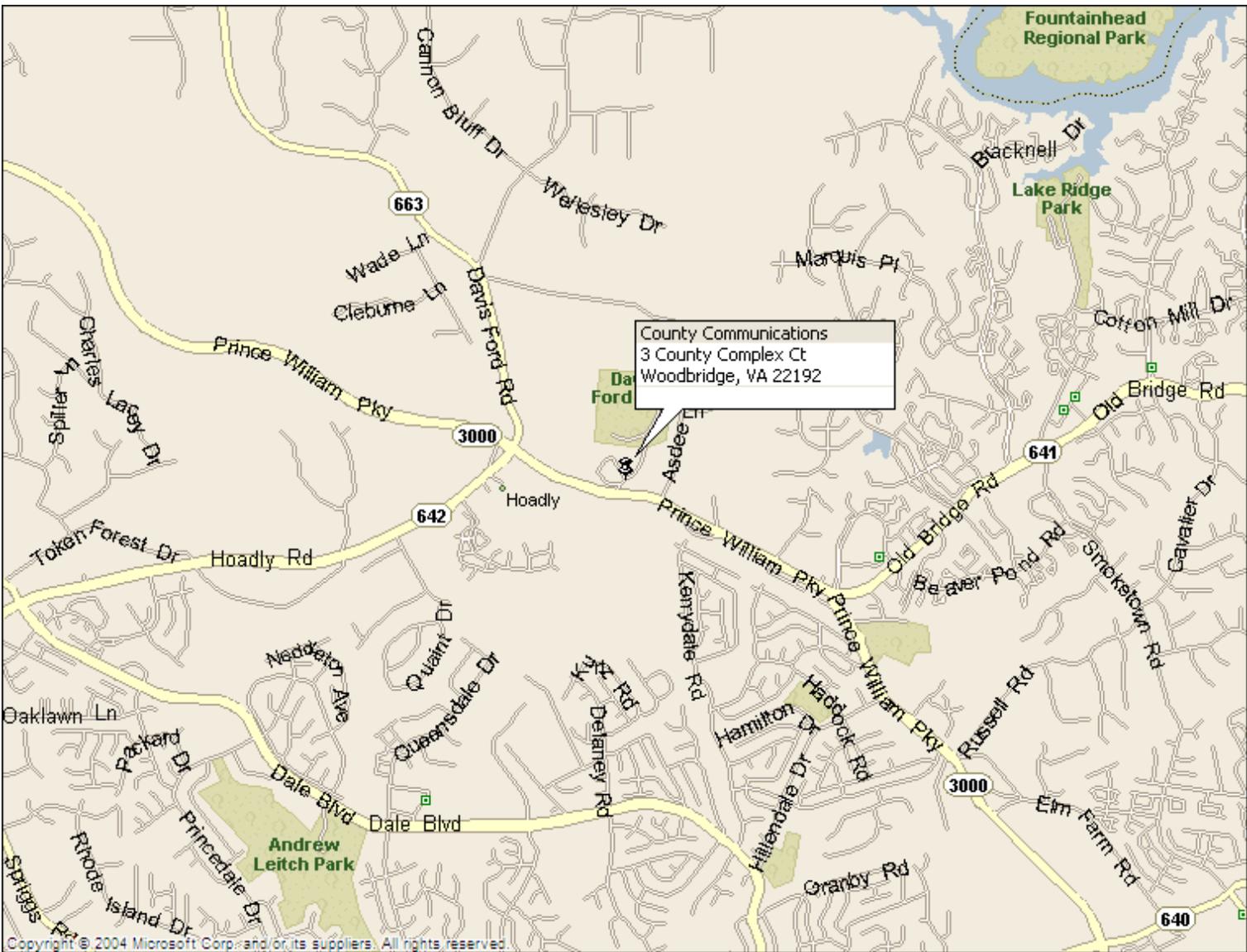
23 cm (1240 MHz)*



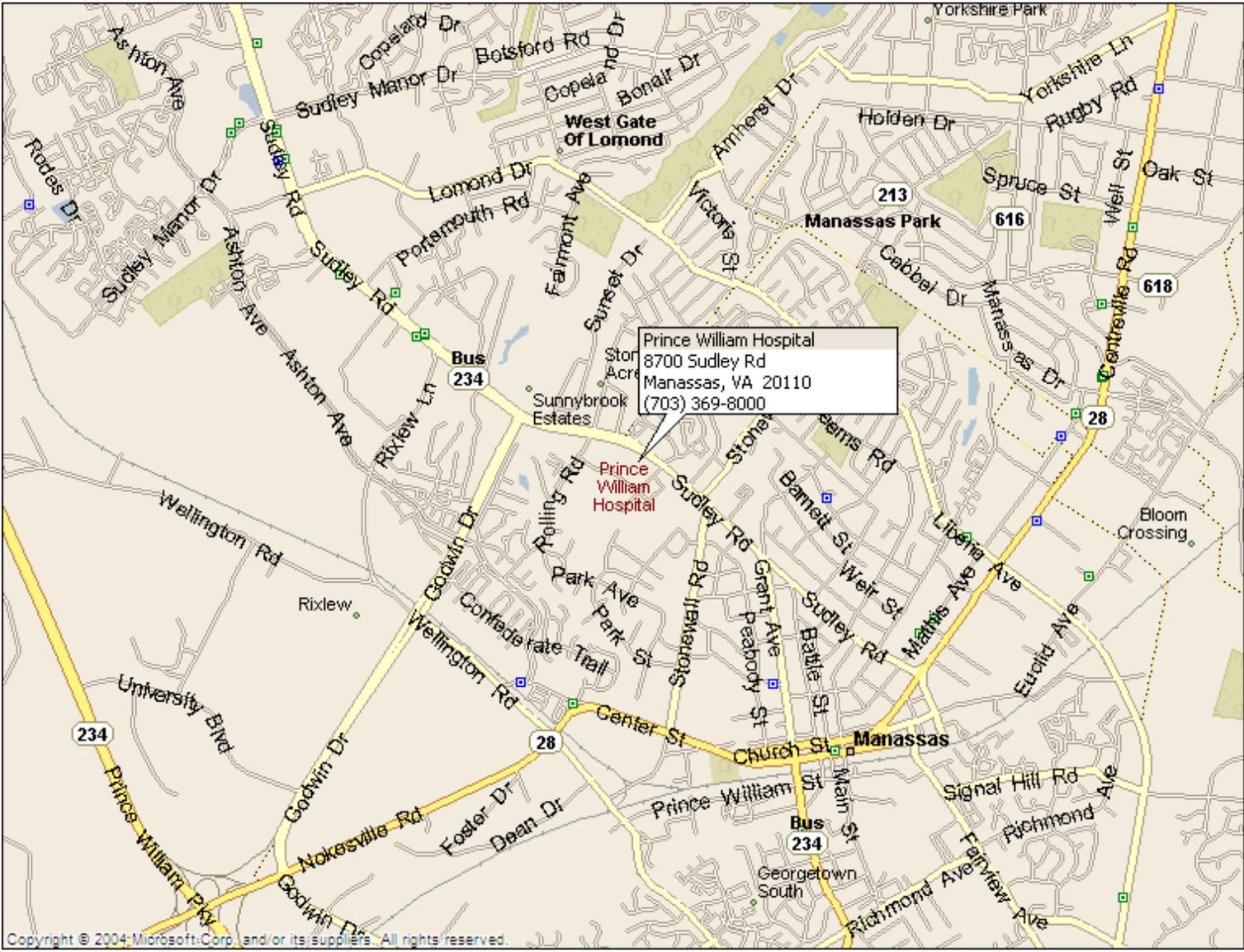
All licensees except Novices are authorized all modes on the following frequencies:

2300-2310 MHz	10.0-10.5 GHz	122.25-123.0 GHz
2390-2450 MHz	24.0-24.25 GHz	134-141 GHz
3300-3500 MHz	47.0-47.2 GHz	241-250 GHz
5650-5925 MHz	76.0-81.0 GHz	All above 275 GHz

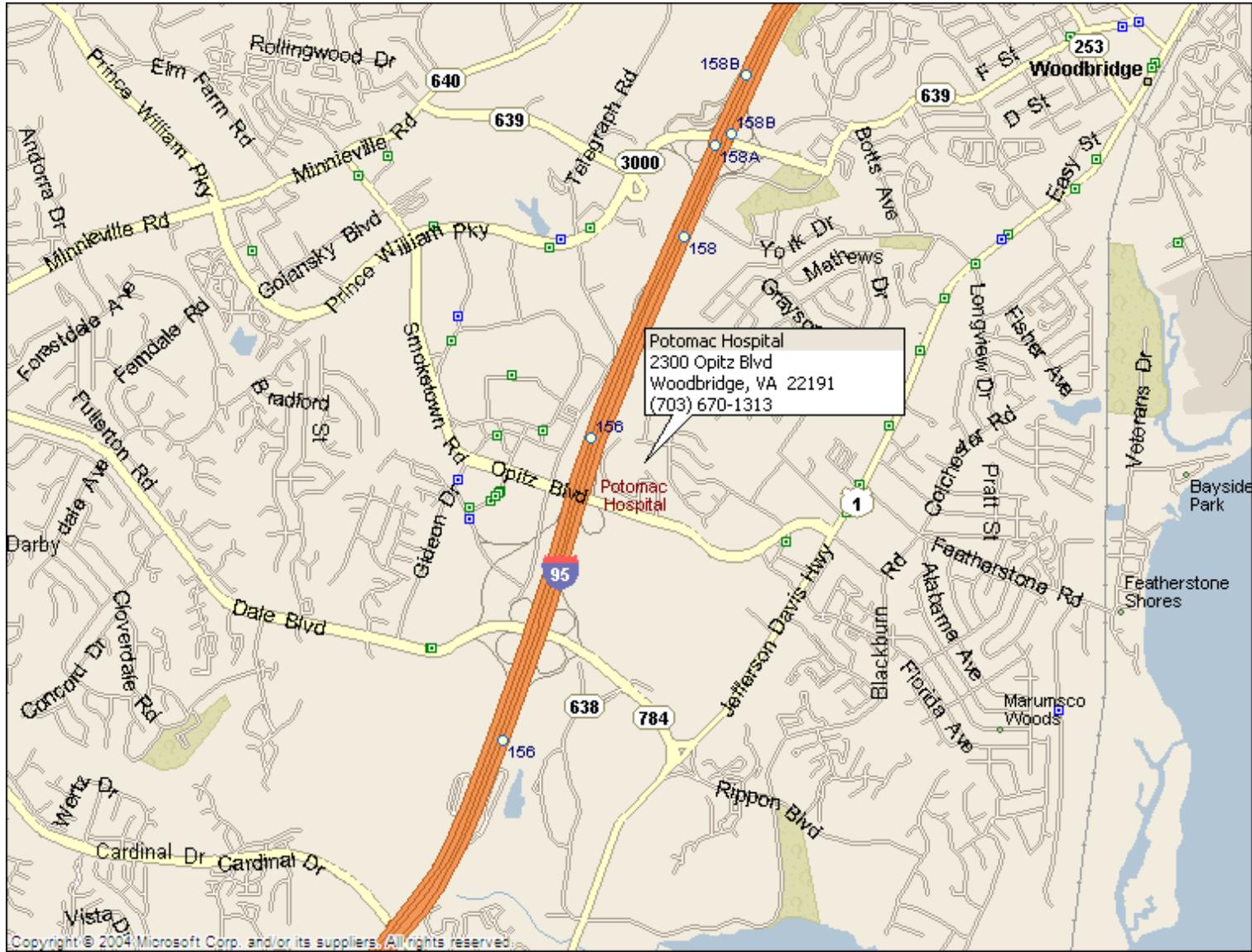
Prince William County Communications: 3 County Complex Court (Owens Building). From Manassas, take the Prince William County Parkway south and turn left into the county complex. From Woodbridge, take the Prince William County Parkway north and turn right into the county complex. Parking is behind the McCoart Building.



Prince William County Hospital

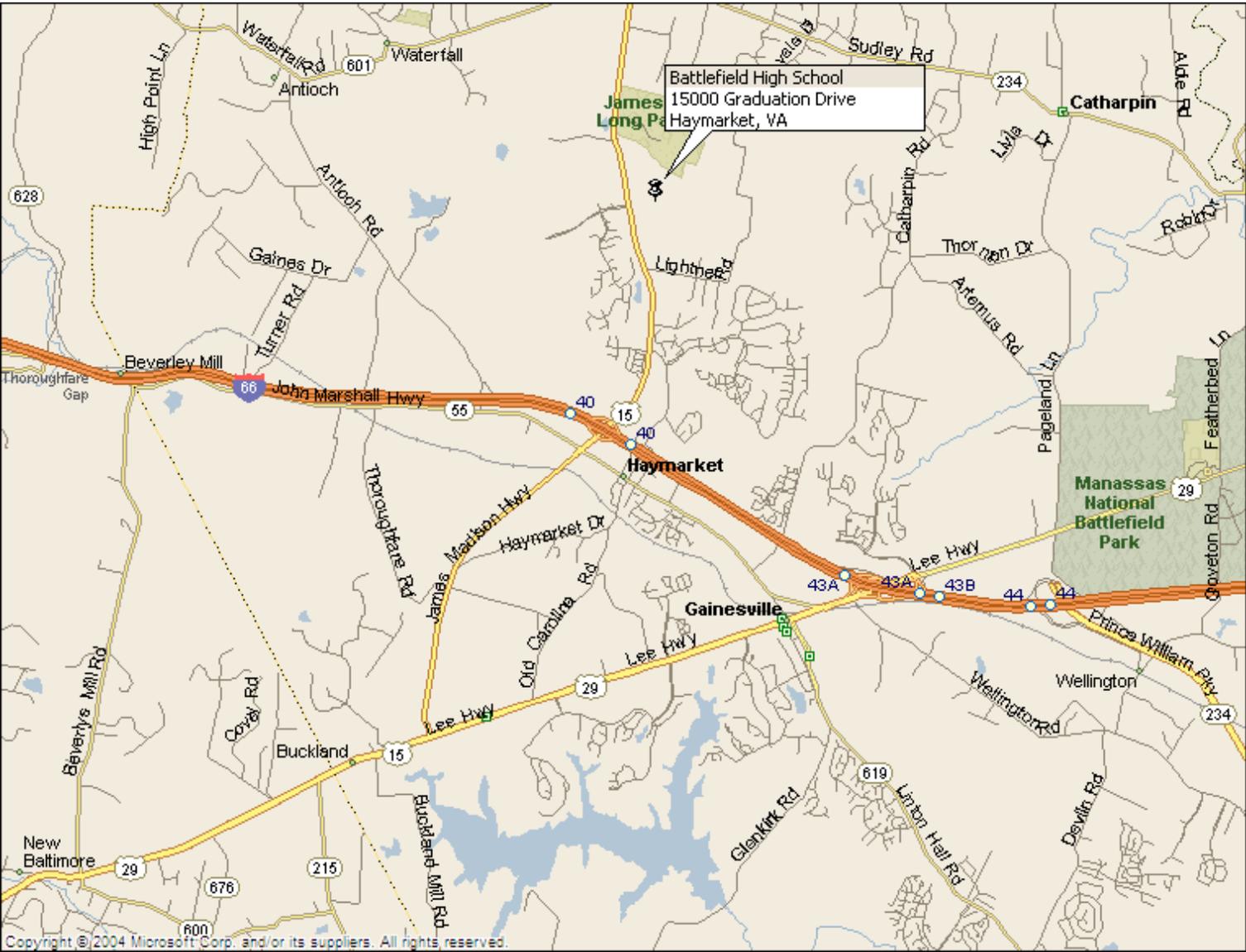


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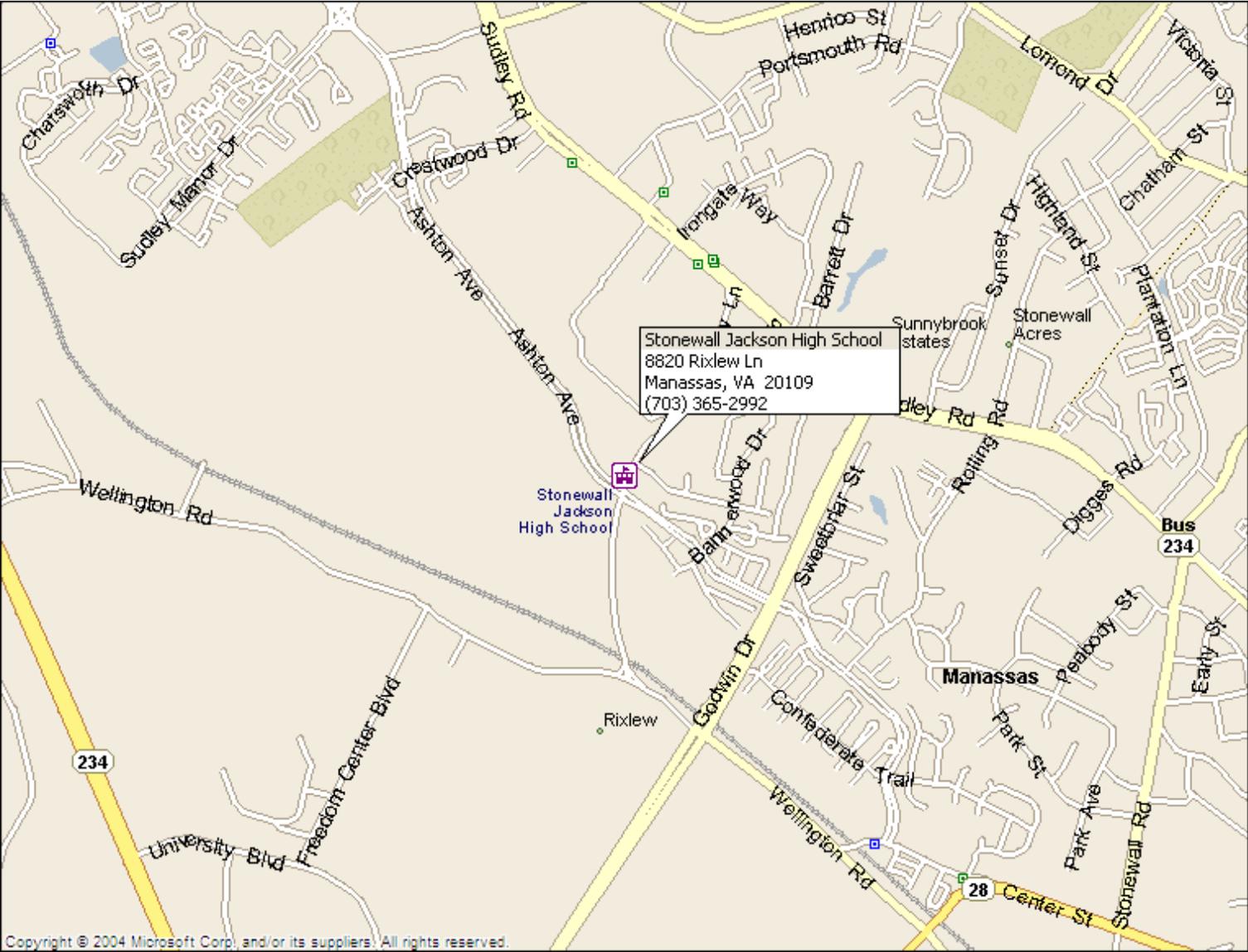


Potomac Hospital

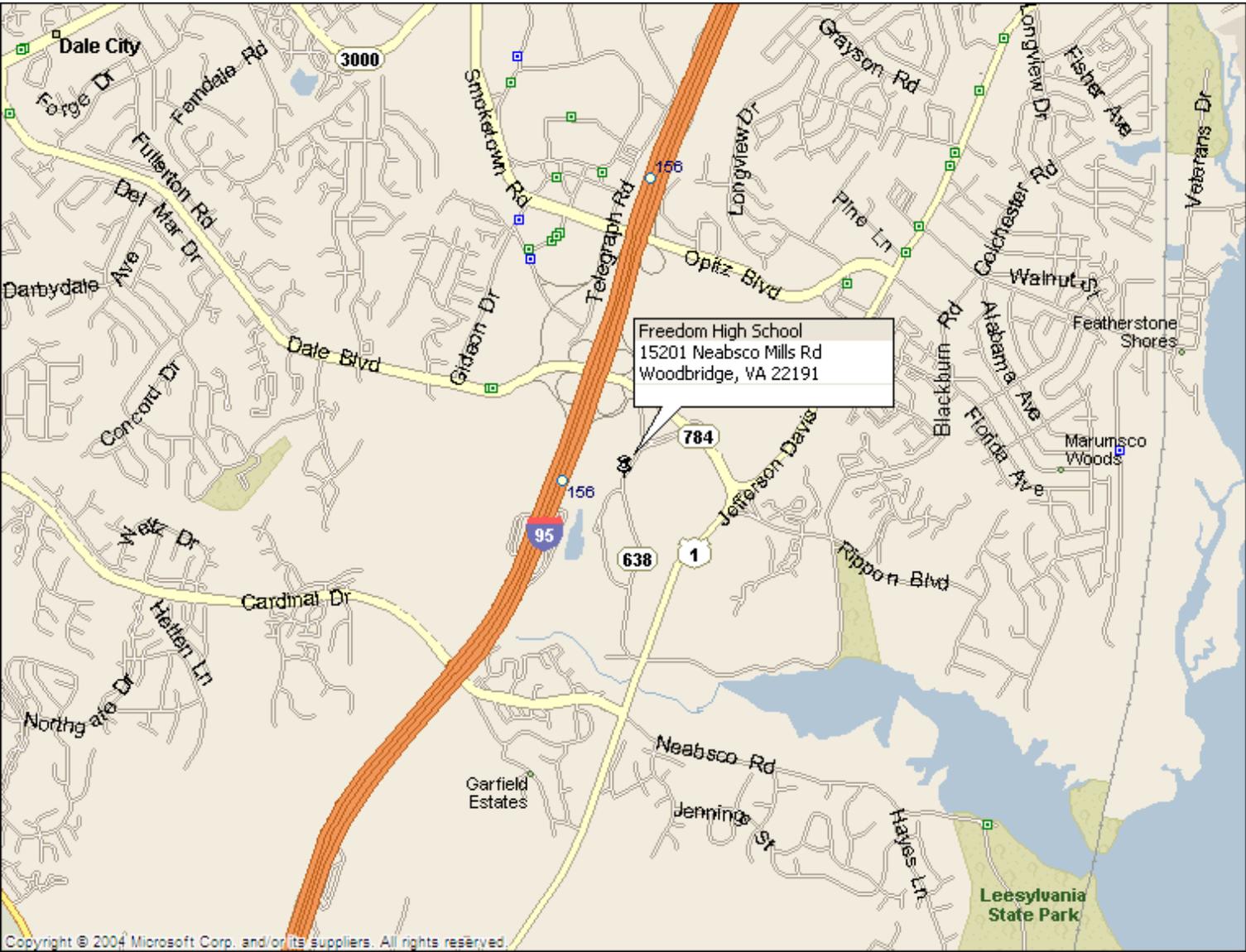
Battlefield High School (Shelter)



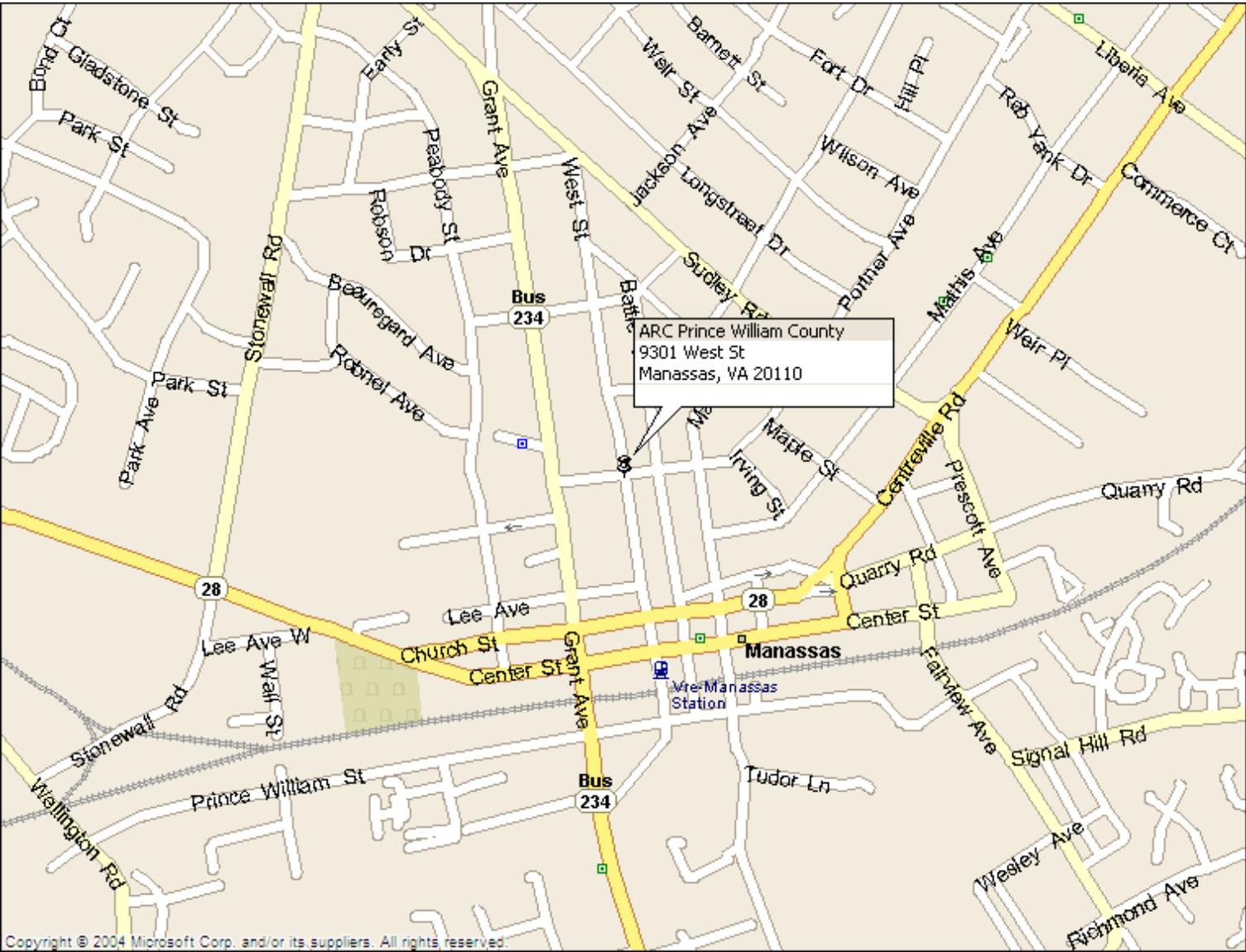
**Stonewall Jackson High School
(Shelter)**



Freedom High School (Shelter)



American Red Cross
Prince William County Chapter





THE AMERICAN RADIO RELAY LEAGUE
RADIOGRAM
 VIA AMATEUR RADIO



NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE
--------	------------	----	-------------------	-------	-----------------	------------	------

TO

TELEPHONE NUMBER

_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

THIS RADIO MESSAGE WAS RECEIVED AT

AMATEUR STATION _____ PHONE _____

NAME _____

STREET ADDRESS _____

CITY, STATE, ZIP _____

FROM REC'D	DATE	TIME	TO SENT	DATE	TIME
---------------	------	------	------------	------	------

THIS MESSAGE WAS HANDLED FREE OF CHARGE BY A LICENSED AMATEUR RADIO OPERATOR, WHOSE ADDRESS IS SHOWN IN THE BOX AT RIGHT ABOVE. AS SUCH MESSAGES ARE HANDLED SOLELY FOR THE PLEASURE OF OPERATING, NO COMPENSATION CAN BE ACCEPTED BY A "HAM" OPERATOR. A RETURN MESSAGE MAY BE FILED WITH THE "HAM" DELIVERING THIS MESSAGE TO YOU. FURTHER INFORMATION ON AMATEUR RADIO MAY BE OBTAINED FROM ARRL HEADQUARTERS, 225 MAIN STREET, NEWINGTON, CT 06111

THE AMERICAN RADIO RELAY LEAGUE, INC. IS THE NATIONAL MEMBERSHIP SOCIETY OF LICENSED RADIO AMATEURS AND THE PUBLISHER OF QST MAGAZINE. ONE OF ITS FUNCTIONS IS PROMOTION OF PUBLIC SERVICE COMMUNICATION AMONG AMATEUR OPERATORS. TO THAT END, THE LEAGUE HAS ORGANIZED THE NATIONAL TRAFFIC SYSTEM FOR DAILY NATIONWIDE MESSAGE HANDLING.

PRINTED IN USA



THE AMERICAN RADIO RELAY LEAGUE
RADIOGRAM
 VIA AMATEUR RADIO



NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE
--------	------------	----	-------------------	-------	-----------------	------------	------

TO

TELEPHONE NUMBER

_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

THIS RADIO MESSAGE WAS RECEIVED AT

AMATEUR STATION _____ PHONE _____

NAME _____

STREET ADDRESS _____

CITY, STATE, ZIP _____

FROM REC'D	DATE	TIME	TO SENT	DATE	TIME
---------------	------	------	------------	------	------

THIS MESSAGE WAS HANDLED FREE OF CHARGE BY A LICENSED AMATEUR RADIO OPERATOR, WHOSE ADDRESS IS SHOWN IN THE BOX AT RIGHT ABOVE. AS SUCH MESSAGES ARE HANDLED SOLELY FOR THE PLEASURE OF OPERATING, NO COMPENSATION CAN BE ACCEPTED BY A "HAM" OPERATOR. A RETURN MESSAGE MAY BE FILED WITH THE "HAM" DELIVERING THIS MESSAGE TO YOU. FURTHER INFORMATION ON AMATEUR RADIO MAY BE OBTAINED FROM ARRL HEADQUARTERS, 225 MAIN STREET, NEWINGTON, CT 06111

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PRINTED IN USA

AMATEUR RADIO DISASTER WELFARE MESSAGE

Number	Precedence W	HX	Station of Origin	Check ARL	Place of Origin	Time filed	Date
TO						Message Receipt Or Delivery Information Operator and Station _____ Sent To _____ Delivered To _____ Date _____ Time _____	

Telephone Number _____

(CIRCLE NOT MORE THAN TWO STANDARD TEXTS FROM LIST BELOW)

- ARL ONE Everyone safe here. Please don't worry.
- ARL TWO Coming home as soon as possible.
- ARL THREE Am in _____ hospital. Receiving excellent care and recovering fine.
- ARL FOUR Only slight property damage here. Do not be concerned about disaster reports.
- ARL FIVE Am moving to new location. Send no further mail or communications. Will inform you of new address when relocated.
- ARL SIX Will contact you as soon as possible.
- ARL SIXTY FOUR Arrived safety at _____.

Time	Date	Telephone	Signature

THE AMERICAN RADIO RELAY LEAGUE

RADIOGRAM

VIA AMATEUR RADIO

Number	Precedence	HX	Station of Origin	Check	Place of Origin	Time Filed	Date
TO						This Radio Message Was Received At Amateur Station _____ Phone _____ Name _____ Street Address _____ City and State _____	

Telephone Number _____

From	Date	Time	To	Date	Time
REC'D This message was handled free of charge by a licensed Amateur Radio Operator whose address is shown in the box at right above. As such messages are handled solely for the pleasure of operating. No compensation can be accepted by a "Ham" operator. A return message may be filed with the "Ham" delivering this message to you. Further information on Amateur Radio may be obtained from A.R.R.L. Headquarters 225 Main Street, Newington, CT 06111			SENT The American Radio Relay League, Inc., is the national membership society of licensed radio amateurs and the publishers of QST Magazine. One of its functions is promotion of the public service communications among amateur operators to that end. The League has organized the National Traffic System for daily nationwide message handling.		

FSD-3

Relief Emergency · Routine Messages Recommended Precedences

The letters ARL are inserted in the preamble in the check and in the text before spelled out numbers, which represent texts from this list. Note that some ARL texts include insertion of numerals .Example: NR 1 R W1AW ARL 5 NEWINGTON CONN. DEC 25 DONALD R. SMITH AA 164 EAST SIXTH AVE AA NORTH RIVER CITY MO AA PHONE 73-3968 BT ARL FIFTY ARL SIXTY ONE BT DIANA AR. For additional information about traffic handling, consult The ARRL Operating Manual, published by ARRL.

Group One—For Possible “Relief Emergency” Use

ONE	Everyone safe here. Please don't worry.
TWO	Coming home as soon as possible.
THREE	Am in ____ hospital. Receiving excellent care and recovering fine.
FOUR	Only slight property damage here. Do not be concerned about disaster reports.
FIVE	Am moving to new location. Send no further mail or communication. Will inform you of new address when relocated .
SIX	Will contact you as soon as possible.
SEVEN	Please reply by Amateur Radio through the amateur delivering this message. This is a free public service.
EIGHT	Need additional ____ mobile or portable equipment for immediate emergency use.
NINE	Additional ____ radio operators needed to assist with emergency at this location.
TEN	Please contact _____. Advise to standby and provide further emergency information, instructions or assistance.
ELEVEN	Establish Amateur Radio emergency communications with ____ on ____ MHz.
TWELVE	Anxious to hear from you. No word in some time. Please contact me as soon as possible.
THIRTEEN	Medical emergency situation exists here.
FOURTEEN	Situation here becoming critical. Losses and damage from ____ increasing.
FIFTEEN	Please advise your condition and what help is needed.
SIXTEEN	Property damage very severe in this area.
SEVENTEEN	REACT communications services also available. Establish REACT communication with ____ on channel ____.
EIGHTEEN	Please contact me as soon as possible at _____.

- NINETEEN Request health and welfare report on _____. (State name, address and telephone number.)
- TWENTY Temporarily stranded. Will need some assistance. Please contact me at _____.
- TWENTY ONE Search and Rescue assistance is needed by local authorities here. Advise availability.
- TWENTY TWO Need accurate information on the extent and type of conditions now existing at your location. Please furnish this information and reply without delay.
- TWENTY THREE Report at once the accessibility and best way to reach your location.
- TWENTY FOUR Evacuation of residents from this area urgently needed. Advise plans for help.
- TWENTY FIVE Furnish as soon as possible the weather conditions at your location.
- TWENTY SIX Help and care for evacuation of sick and injured from this location needed at once.
- Emergency/priority messages originating from official sources must carry the signature of the originating official.

Group Two—Routine Messages

- FORTY SIX Greetings on your birthday and best wishes for many more to come.
- FIFTY Greetings by Amateur Radio.
- FIFTY ONE Greetings by Amateur Radio. This message is sent as a free public service by ham radio operators at _____. Am having a wonderful time.
- FIFTY TWO Really enjoyed being with you. Looking forward to getting together again.
- FIFTY THREE Received your _____. It's appreciated; many thanks.
- FIFTY FOUR Many thanks for your good wishes.
- FIFTY FIVE Good news is always welcome. Very delighted to hear about yours.
- FIFTY SIX Congratulations on your _____, a most worthy and deserved achievement.
- FIFTY SEVEN Wish we could be together.
- FIFTY EIGHT Have a wonderful time. Let us know when you return.
- FIFTY NINE Congratulations on the new arrival. Hope mother and child are well.
- *SIXTY Wishing you the best of everything on _____.
- SIXTY ONE Wishing you a very Merry Christmas and a Happy New Year.
- *SIXTY TWO Greetings and best wishes to you for a pleasant _____ holiday season.
- SIXTY THREE Victory or defeat, our best wishes are with you. Hope you win.

- SIXTY FOUR Arrived safely at _____.
- SIXTY FIVE Arriving _____ on _____. Please arrange to meet me there.
- SIXTY SIX DX QSLs are on hand for you at the _____ QSL Bureau. Send _____ self addressed envelopes.
- SIXTY SEVEN Your message number _____ undeliverable because of _____. Please advise.
- SIXTY EIGHT Sorry to hear you are ill. Best wishes for a speedy recovery.
- SIXTY NINE Welcome to the _____. We are glad to have you with us and hope you will enjoy the fun and fellowship of the organization.

* Can be used for all holidays.

ARRL Recommended Precedences

Please observe the following ARRL provisions for PRECEDENCES in connection with written message traffic. These provisions are designed to increase the efficiency of our service both in normal times and in emergency.

EMERGENCY--Any message having life and death urgency to any person or group of persons, which is transmitted by Amateur Radio in the absence of regular commercial facilities. This includes official messages of welfare agencies during emergencies requesting supplies, materials or instructions vital to relief of stricken populace in emergency areas. During normal times, it will be *very* rare. On CW/RTTY, this designation will *always* be spelled out. When in doubt, do not use it.

PRIORITY--Use abbreviation P on CW/RTTY. This classification is for a) important messages having a specific time limit b) official messages not covered in the emergency category c) press dispatches and emergency-related traffic not of the *utmost* urgency d) notice of death or injury in a disaster area, personal or official.

WELFARE--This classification, abbreviated as W on CW/RTTY, refers to either an inquiry as to the health and welfare of an individual in the disaster area or an advisory from the disaster area that indicates all is well. Welfare traffic is handled only after all emergency and priority traffic is cleared. The Red Cross equivalent to an incoming Welfare message is DWI (Disaster Welfare Inquiry).

ROUTINE--Most traffic in normal times will bear this designation. In disaster situations, traffic labeled Routine (R on CW/RTTY) should be handled last, or not at all when circuits are busy with higher precedence traffic.

Note--the precedence always follows the message number. For example, a message number may be 207R on CW and "Two Zero Seven Routine" on phone.

FSD-218

Relief Emergency · Routine Messages Recommended Precedences

Every formal radiogram message originated and handled should contain the following component parts in the order given

I. Preamble

- a. Number (begin with 1 each month or year)
- b. Precedence (R, W, P or EMERGENCY)
- c. Handling Instructions (optional, see text)
- d. Station of Origin (first amateur handler)
- e. Check (number of words/groups in text only)
- f. Place of Origin (not necessarily location of station of origin.)
- g. Time Filed (optional with originating station)
- h. Date (must agree with date of time filed)

II. Address

(as complete as possible, include zip code and telephone number)

III. Text

(limit to 25 words or less, if possible)

IV. Signature

CW: The prosign \overline{AA} separates the parts of the address. \overline{BT} separates the address from the text and the text from the signature. \overline{AR} marks end of message; this is followed by B if there is another message to follow, by N if this is the only or last message. It is customary to copy the preamble, parts of the address, text and signature on separate lines.

RTTY: Same as CW procedure above, except (1) use extra space between parts of address, instead of \overline{AA} ; (2) omit cw procedure sign \overline{BT} to separate text from address and signature, using line spaces instead; (3) add a CFM line under the signature, consisting of all names, numerals and unusual works in the message in the order transmitted.

PACKET/AMTOR BBS: Same format as shown in the cw message example above, except that the \overline{AA} and \overline{AR} prosigns may be omitted. Most amtor and packet BBS software in use today allows formal message traffic to be sent with the "ST" command. Always avoid the use of spectrum-wasting multiple line feeds and indentations.

PHONE: Use *prowords* instead of prosigns, but it is not necessary to name each part of the message as you send it. For example, the above message would be sent on phone as follows: "Number one routine HX Golf W1AW eight Newington Connecticut one eight three zero zulu july one Donald Smith Figures one six four East Sixth Avenue North River City Missouri zero zero seven eight nine Telephone seven three three four nine six eight Break Happy birthday X-ray see you soon X-ray love Break Diana End of Message Over. "End of Message" is followed by "More" if there is another message to follow, "No More" if it is the only or last message. Speak clearly using VOX (or pause frequently on push-to-talk) so that the receiving station can get fills. Spell phonetically all difficult or unusual words--do not spell out common words. Do not use cw abbreviations or Q-signals in phone traffic handling.

Precedences

The precedence will follow the message number. For example, on cw 207R or 207 EMERGENCY. On phone, "Two Zero Seven, Routine (or Emergency)."

EMERGENCY--Any message having life and death urgency to any person or group of persons, which is transmitted by Amateur Radio in the absence of regular commercial facilities. This includes official messages of welfare agencies during emergencies requesting supplies, materials or instructions vital to relief of stricken populace in emergency areas. During normal times, it will be *very rare*. On cw, RTTY and other digital modes this designation will always be spelled out. When in doubt, *do not* use it.

PRIORITY--Important messages having a specific time limit. Official messages not covered in the Emergency category. Press dispatches and other emergency-related traffic not of the utmost urgency. Notifications of death or injury in a disaster area, personal or official. Use the abbreviation P on cw.

WELFARE--A message that is either a) an inquiry as to the health and welfare of an individual in the disaster area b) an advisory or reply from the disaster area that indicates all is well should carry this precedence, which is abbreviated W on cw. These messages are handled *after* Emergency and Priority traffic but before Routine.

ROUTINE--Most traffic normal times will bear this designation. In disaster situations, traffic labeled Routine (R on cw) should be handled *last*, or not at all when circuits are busy with Emergency, Priority or Welfare traffic.

Handling Instructions (Optional)

HXA--(Followed by number) Collect landline delivery authorized by addressee within....miles. (If no number, authorization is unlimited.)

HXB--(Followed by number) Cancel message if not delivered within....hours of filing time; service originating station.

HXC--Report date and time of delivery (TOD) to originating station.

HXD--Report to originating station the identity of station from which received, plus date and time. Report identity of station to which relayed, plus date and time, or if delivered report date, time and method of delivery.

HXE--Delivering station get reply from addresses, originate message back.

HXF--(Followed by number) Hold delivery until....(date).

HXG--Delivery by mail or landline toll call not required. If toll or other expense involved, cancel message and service originating station.

For further information on traffic handling, consult the Public Service Communications Manual or the ARRL Operating Manual, both published by ARRL.

ARRL QN Signals For CW Net Use

QNA* Answer in prearranged order.

QNB* Act as relay Between _____ and _____

QNC All net stations Copy. I have a message for all net stations.

QND* Net is Directed (controlled by net control station).

QNE* Entire net stand by.

QNF Net is Free (not controlled).

QNG Take over as net control station.

QNH Your net frequency is High.

QNI Net stations report In.*.

I am reporting into the net. (Follow with a list or traffic or QRU).

QNJ Can you copy me?

Can you copy _____?

QNK* Transmit message for _____ to _____

QNL Your net frequency is Low.

QNM* You are QRMing the net. Stand by.

QNN Net control station is _____

What station has net control?

- QNO** Station is leaving the net.
QNP Unable to copy you. Unable to copy _____
QNQ* Move frequency to _____ and wait for _____ to finish handling traffic. Then send him traffic for _____
QNR Answer _____ and Receive traffic.
QNS* Following Stations are in the net. *(Follow with list.)
 Request list of stations in the net.
QNT I request permission to leave the net for _____ minutes.
QNU* The net has traffic for you. Stand by.
QNV* Establish contact with _____ on this frequency. If successful, move to _____ and send him traffic for _____
QNW How do I route messages for _____?
QNX You are excused from the net.* Request to be excused from the net.
QNY* Shift to another frequency (or to _____ kHz) to clear traffic with _____
QNZ Zero beat your signal with mine.

* For use only by the Net Control Station.

Notes on Use of QN Signals

The QN signals listed above are special ARRL signals for use in amateur cw nets only. They are not for use in casual amateur conversation. Other meanings that may be used in other services do not apply. Do not use QN signals on phone nets. Say it with words. QN signals need not be followed by a question mark, even though the meaning may be interrogatory.

International Q Signals

A Q signal followed by a ? asks a question. A Q signal without the ? answers the question affirmatively, unless otherwise indicated.

- QRA** What is the name of your station?
QRG What's my exact frequency?
QRH Does my frequency vary?
QRI How is my tone? (1-3)
QRK What is my signal intelligibility? (1-5)
QRL Are you busy?
QRM Is my transmission being interfered with?
QRN Are you troubled by static?
QRO Shall I increase transmitter power?
QRP Shall I decrease transmitter power?
QRQ Shall I send faster?
QRS Shall I send slower?
QRT Shall I stop sending?
QRU Have you anything for me? (Answer in negative)
QRV Are you ready?
QRW Shall I tell _____ you're calling him?
QRX When will you call again?
QRZ Who is calling me?
QSA What is my signal strength? (1-5)
QSB Are my signals fading?
QSD Is my keying defective?
QSG Shall I send _____ messages at a time?
QSK Can you work breakin?

QSL	Can you acknowledge receipt?
QSM	Shall I repeat the last message sent?
QSO	Can you communicate with _____ direct?
QSP	Will you relay to _____?
QSV	Shall I send a series of V's?
QSW	Will you transmit on _____?
QSX	Will you listen for _____ on _____?
QSY	Shall I change frequency?
QSZ	Shall I send each word/group more than once? (Answer, send twice or _____)
QTA	Shall I cancel number _____?
QTB	Do you agree with my word count? (Answer negative)
QTC	How many messages have you to send?
QTH	What is your location?
QTR	What is your time?
QTV	Shall I stand guard for you _____?
QTX	Will you keep your station open for further communication with me?
QUA	Have you news of _____?

Abbreviations, Prosigns, Prowords

CW	PHONE (meaning or purpose)
<u>AA</u>	(Separation between parts of address or signature.).
AA	All after (used to get fills).
AB	An before (used to get fills).
ADEE	Addressee (name of person to whom message addressed).
ADR	Address (second part of message).
AR	End of message (end of record copy).
<u>ARL</u>	(Used with "check," indicates use of ARRL numbered message in text).
<u>AS</u>	Stand by; wait.
B	More (another message to follow).
BK	Break; break me; break-in (interrupt transmission on cw. Quick check on phone).
<u>BT</u>	Separation (break) between address and text; between text and signature.
C	Correct; yes.
CFM	Confirm. (Check me on this).
CK	Check.
DE	From; this is (preceding identification).
<u>HH</u>	(Error in sending. Transmission continues with last word correctly sent.)
<u>HX</u>	(Handling instructions. Optional part of preamble.) Initial(s). Single letter(s) to follow.
<u>IMI</u>	Repeat; I say again. (Difficult or unusual words or groups.)
K	Go ahead; over; reply expected. (Invitation to transmit.)
N	Negative, incorrect; no more. (No more messages to follow.)
NR	Number. (Message follows.)
PBL	Preamble (first part of message)
N/A	Read back. (Repeat as received.)
R	Roger; point. (Received; decimal point.)
<u>SIG</u>	Signed; signature (last part of message.)
<u>SK</u>	Out; clear (end of communications, no reply expected.)
TU	Thank you.
WA	Word after (used to get fills.)
WB	Word before (used to get fills.)
N/A	Speak slower.
N/A	Speak faster.

ARRL Communications Procedures

Voice	Code	Situation
Go ahead	K	Used after calling CQ, or at the end of a transmission, to indicate any station is invited to transmit.
Over	AR	Used after a call to a specific station, before the contact has been established
	KN	Used at the end of any transmission when only the specific station contacted is invited to answer.
Stand by or wait	AS	A temporary interruption of the contact.
Roger	R	Indicates a transmission has been received correctly and in full.
Clear	SK	End of contact. SK is sent before the final identification.
Leaving the air or closing the station	CL	Indicates that a station is going off the air, and will not listen or answer any further calls. CL is sent after the final identification.

ITU Phonetic Alphabet

Word list adopted by the International Telecommunications Union

A	Alfa
B	Bravo
C	Charlie
D	Delta
E	Echo
F	Foxtrot
G	Golf
H	Hotel
I	India
J	Juliect
K	Kilo
L	Lima
M	Mike
N	November
O	Oscar
P	Papa
Q	Quebec
R	Romeo
S	Sierra
T	Tango
U	Uniform
V	Victor
W	Wiskey
X	X-ray
Y	Yankee
Z	Zulu

The R-S-T System

Readability

- 1 Unreadable
- 2 Barely readable, occasional words distinguishable.
- 3 Readable with considerable difficulty.
- 4 Readable with practically no difficulty.
- 5 Perfectly readable.

Signal Strength

- 1 Faint signals, barely perceptible.
- 2 Very weak signals.
- 3 Weak signals.
- 4 Fair signals.
- 5 Fairly good signals.
- 6 Good signals.
- 7 Moderately strong signals.
- 8 Strong signals.
- 9 Extremely strong signals.

Tone

- 1 Sixty cycle a.c. or less, very rough and broad.
- 2 Very rough a.c., very harsh and broad.
- 3 Rough a.c. tone, rectified but not filtered.
- 4 Rough note, some trace of filtering.
- 5 Filtered rectified a.c. but strongly ripple-modulated.
- 6 Filtered tone, definite trace of ripple modulation.
- 7 Near pure tone, trace of ripple modulation.
- 8 Near perfect tone, slight trace of modulation.
- 9 Perfect tone, no trace of ripple or modulation of any kind.

If the signal has the characteristic steadiness of crystal control, add the letter X to the RST report. If there is a chirp, the letter C may be added to so indicate. Similarly for a click, add K. The above reporting system is used on both cw and voice, leaving out the "tone" report on voice. Turn card over for examples.

Time Conversion Chart

UTC	EDT/AST	CDT/EST	MDT/CST	PDT/MST	PST
0000*	2000	1900	1800	1700	1600
0100	2100	2000	1900	1800	1700
0200	2200	2100	2000	1900	1800
0300	2300	2200	2100	2000	1900
0400	0000*	2300	2200	2100	2000
0500	0100	0000*	2300	2200	2100
0600	0200	0100	0000*	2300	2200
0700	0300	0200	0100	0000*	2300
0800	0400	0300	0200	0100	0000*
0900	0500	0400	0300	0200	0100
1000	0600	0500	0400	0300	0200
1100	0700	0600	0500	0400	0300
1200	0800	0700	0600	0500	0400

1300	0900	0800	0700	0600	0500
1400	1000	0900	0800	0700	0600
1500	1100	1000	0900	0800	0700
1600	1200	1100	1000	0900	0800
1700	1300	1200	1100	1000	0900
1800	1400	1300	1200	1100	1000
1900	1500	1400	1300	1200	1100
2000	1600	1500	1400	1300	1200
2100	1700	1600	1500	1400	1300
2200	1800	1700	1600	1500	1400
2300	1900	1800	1700	1600	1500
2400*	2000	1900	1800	1700	1600

Universal Coordinated Time (UTC) is the time at the zero or reference meridian. Time changes one hour with each change of 15 degrees in longitude. The five time zones in the US proper and Canada roughly follow these lines.

* 0000 and 2400 are interchangeable. (2400 is associated with the date of the day ending, 0000 with the day just starting.)

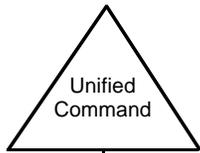
1. Incident Name	2. Prepared by: (name) Date: _____ Time: _____	INCIDENT BRIEFING ICS 201-OS (pg 1 of 4)
3. Map / Sketch (Include maps drawn here or attached, showing the total area of operations, the incident site/area, overflight results, trajectories, impacted shorelines, or other graphics depicting situational and response status)		
INCIDENT BRIEFING	June 2000	ICS 201-OS (pg 1 of 4)

1. Incident Name

2. Prepared by: (name)
Date: _____ Time: _____

INCIDENT BRIEFING ICS
201-OS (pg 3 of 4)

6. Current Organization



FOSC _____

SOSC _____

RPIC _____

— Safety Officer _____

— Liaison Officer _____

— Information Officer _____

Operations Section

Planning Section

Logistics Section

Finance Section

Div. / Group _____

INCIDENT BRIEFING (ICS FORM 201-OS)

Purpose. The Incident Briefing form provides the Unified Command (and the Command and General Staffs assuming command of the incident) with basic information regarding the response situation and the resources allocated to the incident. It is also a permanent record of the initial incident response.

Preparation. This briefing form is prepared under the direction of the initial Incident Commander for presentation to the Unified Command. This form can be used for managing the response during the initial period until the beginning of the first operational period for which an Incident Action Plan (IAP) is prepared. The information from the ICS form 201-OS can be used as the starting point for other ICS forms or documents.

- Page 1 (Map/Sketch) may transition immediately to the Situation Map.
- Page 2 (Summary of Current Actions) may be used to continue tracking the response actions and as the initial input to the ICS form 215-OS and the ICS form 232-OS.
- Page 3 (Current Organization) may transition immediately to the Organization List (ICS form 203-OS) and/or Organization Chart (ICS form 207-OS).
- Page 4 (Resources Summary) may be used to continue tracking resources assigned to the incident and as input to individual T-Cards (ICS form 219) or other resource tracking system.

Distribution. After the initial briefing of the Unified Command and General Staff members, the Incident Briefing form is duplicated and distributed to the Command Staff, Section Chiefs, Branch Directors, Division/Group Supervisors, and appropriate Planning and Logistics Section Unit Leaders. The sketch map and summary of current action portions of the briefing form are given to the Situation Unit while the Current Organization and Resources Summary portion are given to the Resources Unit. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Prepared By Date Time	Enter the name and position of the person completing the form. Enter date prepared (month, day, year). Enter time prepared (24-hour clock).
3.	Map/Sketch	Show the total Area of Operations, the incident site, overflight results, trajectories, impacted shorelines, or other graphics depicting situation and response status on a sketch or attached map.
4.	Initial Incident Objectives	Enter short, clear, concise statements of the objectives for managing the initial response.
5.	Summary of Current Actions	Enter the actions taken in response to the incident, including the time, and note any significant events or specific problem areas.
6.	Current Organization	Enter, on the organization chart, the names of the individuals assigned to each position. Modify the chart as necessary, using additional boxes in the space provided under the Sections. Two blank lines are provided in the Unified Command section for adding other agencies or groups participating in the Unified Command and/or for multiple Responsible Parties.

Item #	Item Title	Instructions
7.	Resources Summary	Enter the following information about the resources allocated to the incident:
	Resource Needed	Description of the resource needed (e.g., open water boom, skimmer, vac truck, etc.).
	Time Ordered	Time ordered (24-hour clock).
	Resource Identifier	Identifier for the resource (e.g., radio call-sign, vessel name, vendor name, license plate, etc.).
	ETA	Estimated time for the resource to arrive at the staging area.
	On-Scene	"X" upon the resource's arrival.
	Location /Assignment / Status	Location of the resource, the actual assignment, and the status of the resource (if other than working).

NOTE: Additional pages may be added to ICS form 201-OS if needed

INCIDENT OBJECTIVES (ICS FORM 202-OS)

Purpose. The Incident Objectives form describes the basic incident strategy, control objectives, and provides weather, tide and current information, and safety considerations for use during the next operational period. The Attachments list at the bottom of the form also serves as a table of contents for the Incident Action Plan.

Preparation. The Incident Objectives form is completed by the Planning Section following each formal Planning Meeting conducted in preparing the Incident Action Plan.

Distribution. The Incident Objectives form will be reproduced with the IAP and given to all supervisory personnel at the Section, Branch, Division/Group, and Unit levels. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
		NOTE: ICS form 202-OS, Incident Objectives, serves as part of the Incident Action Plan (IAP) (not complete until attachments are included).
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Overall Incident Objective(s)	Enter clear, concise statements of the objectives for managing the response. These objectives usually apply for the duration of the incident.
4.	Objectives for specified Operational Period	Enter short, clear, concise statements of the objectives for the incident response for this operational period. Include alternatives.
5.	Safety Message for the specified Operational Period	Enter information such as known safety hazards and specific precautions to be observed during this operational period. If available, a safety message should be referenced and attached. At the bottom of this box, enter the location where approved Site Safety Plan is available for review.
6.	Weather	Attach a sheet with the observed and predicted weather.
7.	Tides/Currents	Attach a sheet with the predicted tide and current information for the specified operational period.
8.	Sunrise/Sunset	Enter predicted times for sunrise and/or sunset (local time, 24-hour clock) during the specified operational period.
9.	Attachments	Mark an "X" in boxes for forms attached to the IAP.
10.	Prepared By	Enter the name of the Planning Section Chief completing the form.
	Date/Time	Enter the Date (month, day, year) and Time (24-hour clock) the form was prepared.

INCIDENT RADIO COMMUNICATIONS PLAN (ICS FORM 205-OS)

Special Note. This form, ICS 205-OS, is used to provide, in one location, information on all radio frequency assignments down to the Division/Group level for each operational period; whereas, the Communications List, ICS 205a-OS is used to list methods of contact for personnel assigned to the incident (radio frequencies, phone numbers, pager numbers, etc.),

Purpose. The Incident Radio Communications Plan is a summary of information obtained from the Radio Requirements Worksheet (ICS form 216) and the Radio Frequency Assignment Worksheet (ICS form 217). Information from the Radio Communications Plan on frequency assignments is normally noted on the appropriate Assignment List (ICS form 204-OS).

Preparation. The Incident Radio Communications Plan is prepared by the Communications Unit Leader and given to the Planning Section Chief. Detailed instructions on the preparation of this form may be found in ICS Publication 223-5, Communications Unit Position Manual.

Distribution. The Incident Radio Communications Plan is duplicated and given to all recipients of the Incident Objectives form, including the Incident Communications Center. Information from the plan is placed on Assignment Lists. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Basic Radio Channel Use	Enter the following information about radio channel use:
	System	Radio cache system(s) assigned and used on the incident.
	Channel	Radio channel numbers assigned.
	Function	Function each channel is assigned (e.g., command, support, division tactical, and ground-to-air).
	Frequency	Radio frequency tone number assigned to each specified function (e.g., 153.400)
	Assignment	ICS organization assigned to each of the designated frequencies (e.g., Branch I, Division A).
	Remarks	This section should include narrative information regarding special situations.
4.	Prepared By	Enter the name of the Communications Unit Leader preparing the form.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

COMMUNICATIONS LIST (ICS FORM 205a-OS)

Special Note. This optional form is used in conjunction with the Incident Radio Communications Plan, ICS form 205-OS. Whereas the ICS form 205-OS is used to provide information on all radio frequencies down to the Division/Group level, the Communications List, ICS form 205a-OS, lists methods of contact for personnel assigned to the incident (radio frequencies, phone numbers, pager numbers, etc.), and functions as an incident directory.

Purpose. The Communications List records methods of contact for personnel on scene.

Preparation. The Communications List can be filled out during check-in and is maintained and distributed by Communications Unit personnel.

Distribution. The Communications List is distributed within the ICS and posted, as necessary. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Basic Local Communications Information	Enter the communications methods assigned and used for each assignment.
	Assignment Name	Enter the ICS organizational assignment.
	Method(s) of contact	Enter the name of the contact person for the assignment. Enter the radio frequency, telephone number(s), etc. for each assignment.
4.	Prepared By	Enter the name of the Communications Unit Leader preparing the form.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Date and Time of Message	GENERAL MESSAGE ICS 213-OS
3. TO: ICS Position		
4. FROM: ICS Position		
5. Subject:		
6. Message		
8. Signature / Position (person replying)		Date / Time of reply
GENERAL MESSAGE		June 2000
		ICS 213-OS

General Message (ICS FORM 213-OS)

Purpose. The General Message is used by:

- Incident personnel to record incoming messages which cannot be orally transmitted to the intended recipients;
- Command Post and other incident personnel to transmit messages to the Incident Communications Center for transmission via radio or telephone to the addressee;
- Incident personnel to send any message or notification to incident personnel which requires a hard-copy delivery;
- Incident personnel to place resource orders.

Preparation. This form is prepared by any incident personnel needing to transmit a hard-copy message. The recipient should send a timely reply to the originator, as necessary.

Distribution. Upon completion, the General Message may be hand-carried to the addressee or to the incident Communications Center for transmission. Originator retains a copy of the form. All completed original forms **MUST** be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Date and Time of Message	Enter the date and time of message origination.
3.	To	Enter name and ICS position of message recipient.
4.	From	Enter name and ICS position of message sender.
5.	Subject	Indicate the message subject.
6.	Message	Enter message.
7.	Reply	This section to be used by the unit/person who receives the message to reply to your message.
8.	Signature/Position Date/Time of reply	Enter name and position of person replying to this message. Enter date (month, day, year) and time of reply (24-hour clock).

UNIT LOG (ICS FORM 214-OS)

Special Note. ICS Form 214-OS is used to log activities for an entire unit, whereas the ICS form 214a-OS is designed for individual use.

Purpose. The Unit Log records details of unit activity, including strike team activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

Distribution. The Documentation Unit maintains a file of all Unit Logs. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Unit Name/Designators	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name and ICS Position of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

INDIVIDUAL LOG (ICS FORM 214a-OS)

Special Note. This optional ICS form 214a-OS is a log for individual use, and ICS form 214-OS is designed to log activities for an entire unit.

Purpose. The Individual Log, while not required, records details of each individual's activities. These logs provide a basic reference from which to extract information for inclusion in any after-action report.

Preparation. An Individual Log can be initiated and maintained by each member of the ICS. Completed logs are forwarded to supervisors who provide copies to the Documentation Unit.

Distribution. The Documentation Unit maintains a file of all Individual Logs. The original of each log MUST be submitted to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Individual Name	Enter the name of the individual.
4.	ICS Section	Enter the ICS Section to which the individual is assigned.
5.	Assignment/Location	Enter the assignment or location for the individual.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

RADIO REQUIREMENTS WORKSHEET						1. INCIDENT NAME			2. DATE		3. TIME
4. BRANCH			5. AGENCY			6. OPERATIONAL PERIOD			7. TACTICAL FREQUENCY		
8. DIVISION/GROUP			DIVISION/ GROUP _____			DIVISION/ GROUP _____			DIVISION/ GROUP _____		
AGENCY _____			AGENCY _____			AGENCY _____			AGENCY _____		
9. AGENCY	ID NO.	RADIO RQMTS	AGENCY	ID NO.	RADIO RQMTS	AGENCY	ID NO.	RADIO RQMTS	AGENCY	ID NO.	RADIO RQMTS
216 ICS 3-82			PAGE			10. PREPARED BY (COMMUNICATIONS UNIT)					

RADIO REQUIREMENTS WORKSHEET (ICS FORM 216)

Purpose. The Radio Requirements Worksheet is used to develop the total number of personal portable radios required for each Division/Group and Branch. It provides a listing of all units assigned to each Division, and thus depicts the total incident radio needs.

Initiation of Form. The worksheet is prepared by the Communications Unit for each operational period and can only be completed after specific resource assignments are made and designated on Assignment Lists. This worksheet need not be used if the Communications Unit Leader can easily obtain the information directly from Assignment Lists.

Distribution. The worksheet is for internal use by the Communications Unit and therefore there is no distribution of the form.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Date	Enter date prepared (e.g., 09/17/1996).
3.	Time Prepared	Enter time prepared (e.g., 1530).
4.	Branch	Enter the Branch number (I, II, etc.) for which radio requirements are being prepared.
5.	Agency	Enter the three-letter designator of the agency staffing the Branch Director position (e.g., VNC, CDF, ANF, LFD, etc.).
6.	Operational Period	Enter the time interval for which the assignment applies (e.g., 9/17/96-0600 to 9/18/96-0600).
7.	Tactical Frequency	Enter the radio frequency to be used by the Branch Director to communicate with each Division/Group Supervisor in the Branch.
8.	Division/Group	Enter for each Division/Group in the Branch the Division/Group identifier (A, B, etc.) and the agency assigned (e.g., LAC, VNC, etc.).
9.	Agency/ID No./Radio Requirements	List all units assigned to each Division/Group. Record the agency designator, unit or resource identification, and total number of radios needed for each unit or resource.
10.	Prepared By	Enter the name and position of the person completing the worksheet.

RADIO FREQUENCY ASSIGNMENT WORKSHEET (ICS FORM 217)

Purpose. The Radio Frequency Assignment Worksheet is used by the Communications Unit Leader to assist in determining frequency allocations.

Preparation. Cache radio frequencies available to the incident are listed on the form. Major agency frequencies assigned to the incident should be added to the bottom of the worksheet.

Distribution. The worksheet, prepared by the Communications Unit, is for internal use.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Date	Enter date prepared (e.g., 09/17/1996).
3.	Operational Period	Enter the time interval for which the assignment applies (e.g., 9/17/96-0600 to 9/18/96-0600).
4.	Incident Organization	List frequencies allocated for each channel for each organizational element activated, record the number of radios required to perform the designated function on the specified frequency.
5.	Radio Data	For each radio cache and frequency assigned, record the associated function. Functional assignments are: a. Command b. Support c. Division tactical d. Ground-to-air
6.	Agency	List the frequencies for each major agency assigned to the incident. Also list the function and channel number assigned.
7.	Total Radios Required	Totals for each row and column are calculated automatically. This provides the number of radios required by each organizational unit and the number of radios using each available frequency.
8.	Prepared By	Enter the name and position of the person completing the worksheet.

**COMMUNITY EMERGENCY RESPONSE TEAM
CERT FORMS**

Incident Briefing

Prepared By:	Date:	Time:
Incident Name:		
Map Sketch:		
Current Organization:	Incident Commander:	Battalion:
Summary of Current Actions <i>Be aware of hazards! Work as a team!</i>		

FOR INCIDENT COMMANDER

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10/08/01

Incident Command: Transfer an incident from Damage Assessment sheet. Sketch a map of the incident area, if known, with any hazards. Enter Incident Commander's name and Battalion number under current organization. Give to incident team leader with Assignment Status sheet.

Incident team leader: Sketch a map of the incident area with any hazards, if not done by Incident Command. Summarize the actions of your teams. When incident is complete, return this form, along with Assignment Status, to Incident Command.

**COMMUNITY EMERGENCY RESPONSE TEAM
CERT FORMS**



Message Form

To:	Message Center Use Only Incident : _____ Time: _____ Date: _____ <input type="checkbox"/> Incoming <input type="checkbox"/> Outgoing
From:	
Time:	
Message Text:	
Action Taken:	

USE CLEAR CONCISE TEXT www.cert-la.com 10/08/01
Examples: assignment completed, additional resources needed, unable to complete, special information/status update.

