



INTRODUCTION TO EMERGENCY COMMUNICATIONS

Arlington County RACES
Basic Operator Course – Unit 1



ARLINGTON
VIRGINIA

OBJECTIVES: UNIT 1

- **RACES Role.**
- **Requirements & Registration**
- **Expectations for Volunteers**
- **Working with served agencies**
- **Amateur radio role in “Emergency Support Functions”**
- **Initial Net Call Up**
- **Next Steps**

What is Arlington RACES?

Radio Amateur Civil Emergency Service:

Licensed hams who are registered with the Arlington County Office of Emergency Management (OEM) or approved for mutual aid by a local or state government in the Emergency Management Assistance Compact (EMAC) with Arlington County.

Radio Amateur Civil Emergency Service



- **Communications on behalf of Local, State, and Federal Government**
- **Sponsored by FEMA, administered by local EM**
- **FEMA Civil Preparedness Guide CPG 1-15, "Guidance for RACES"**

MISSION STATEMENT

- **The mission of Arlington County Virginia RACES** is to establish and maintain the leadership and organizational infrastructure necessary to provide amateur radio communications in support of the Arlington Office of Emergency Management under the National Incident Management System Emergency Support Function #2 “Communications” group, and if possible throughout the Commonwealth of Virginia.

Requirements for Participation In Arlington County RACES

- 1) Successful background check
- 2) Basic Operator training completed
- 3) Satisfactory equipment inspection by the Radio Officer
- 4) Regular participation in drills, events, and incidents
- 5) Continuing education -- courses and exercises

MINIMUM EQUIPMENT RECOMMENDATIONS

- **2m FM , Battery capable.**
- **Low power (5w for battery conservation).**
- **High power (25w output for reliable simplex).**
- **Frequency agile, with PL.**
- **Ten field-programmable memories.**

WHY YOU MUST REGISTER

- Registration is required for RACES participation, and
- It provides legal liability protection:
- Federal Volunteer Protection Act of 1997
- Virginia State Government Volunteers Act
- Virginia Emergency Management Assistance Compact

BY REGISTERING AND PARTICIPATING IN Arlington County RACES:

- **You get support**

**from leadership responsible to know
your abilities, training, skills and
limitations**

- *Ensure that you receive a suitable assignment,*
- *Within the scope of your training and physical capabilities,*
- *To ensure your personal safety.*

- **You get protection**

**from liability for your REASONABLE
acts under Virginia and Federal law.**

A LEGAL TERM: *REASONABLE*

- **Actions conducted in accordance with established plans, policies, procedures and directions of Arlington County RACES leadership will be considered “reasonable.”**
- **RACES members follow established policies, plans, procedures and instructions.**

RACES Volunteer Responsibilities:

- Be dependable.
- Work cooperatively with leaders and co-workers.
- Seek out and participate in training.
- Give your best efforts, as if being paid.
- Make reasoned and constructive suggestions.
- Respect the efforts and responsibilities of each volunteer and professional.

Volunteer Bill of Rights:

- Be treated as a co-worker
- A safe working environment
- A suitable assignment
- Know as much as possible about people, policies, procedures and programs
- Participate in activities and quality training
- Be heard and have an active part in planning
- Recognition & Rewards

SELF-CONTROL & COOPERATION

- Your PRIMARY job is communication.
- Leave incident management to the professionals.
- Keep ego tuned to the mission frequency.
- Avoid spurious emissions by mouth.
- Even though you are a valued volunteer, you remain *an ordinary citizen with no special privileges or authority.*

RACES Amateurs Are NOT First Responders!

- **If a fire, medical or public safety emergency exists, CALL 911!**
- Leave fire fighting, law enforcement and emergency management to professionals.
- Your emergency response is limited to that allowed within the scope of your training, such as CPR first aid, etc.



If YOU are the only person on the scene,

- **DO ASSIST**
 - To the extent you are **capable and trained**,
- **WITHOUT danger to yourself.**
- If no phone is working to call 911, **Summon assistance by any means available!**



Event Versus Incident?

- **Event** - Any planned, non-emergency activity, such as a training exercise or public service program.
- **Incident** - Any planned or unplanned occurrence, regardless of cause, which requires action by primary response agencies to prevent or minimize loss of life or damage to property and/or natural resources.

Government Agencies and NGOs want EmCom operators who are:

- Well-trained, knowledgeable, active,
- Disciplined and well-prepared,
- Working as an organized team,
- Following policies and instructions,
- Competent and resourceful!

IN A REAL INCIDENT...

- **An inactive, unprepared ham is a liability!**
- **“Wannabes” and “free lancers”
= big headaches**
- **Doing it *RIGHT* (according to RACES procedures and training)**
 - **Serves our communication mission**
 - **Protects us from liability.**

What are NGOs?

- Non-Governmental Organizations
- Non-RACES amateur radio (EmCom) assets are responsible for most communication support requirements of NGOs, such as hospitals, Red Cross, the Salvation Army, community based organizations and the general public.

ARLINGTON PLAN OVERVIEW:

- **Headed by the RACES Radio Officer**
- **Represents Emergency Management**
 - **Develops the County's ESF-2 plan**
 - **Liaison with Primary Response Agencies**
 - **Liaison with CERT, Neighborhood Watch, NGOs, hospitals**
- **RACES member recruitment**
- **Preparedness and training**
 - **Arlington Alert Network**
 - **Team Rosters**
 - **Agency standing assignments**

EMERGENCY SUPPORT FUNCTIONS

Arlington's Emergency Operations Plan

ESF-2, Communications

It is possible for neighborhoods within Arlington County to be isolated from communications for extended periods of time. Community Emergency Response Team (CERT), and Neighborhood Watch supported by amateur radio communications are important volunteer resources to mitigate this condition...

ESF-2, Communications

- **Authorized amateur radio volunteers may augment primary communications. The Emergency Operations Center may authorize the operation of an amateur radio station during periods of activation.**
- **The county may use amateur radio operators and other nongovernmental volunteer groups... to assist with primary or alternate emergency radio communications support.**
- **The amateur radio and other nongovernmental volunteer groups/operators used in this role will be under the authority of the Arlington County RACES Officer.**

Another Emergency Support Function (ESF)

- **ESF-6, Mass Care**
 - Shelter message centers
 - Health and welfare messages
 - Logistics support
- **Typically handled by NGOs.**

Assistant Radio Officers (ARO)

Needed to ensure a manageable "span of control"

- "Group" ARO - alternate Point of Contact for a served agency
- "Division" ARO - team leader for a neighborhood or sector
- Support staff - perform Incident Command System (ICS) line functions when activated:
- Serve as technical resources

EXAMPLES OF ARO FUNCTIONS

SUPPORT STAFF FOR INCIDENT COMMAND SYSTEM

- Planning / Intelligence
- Logistics
- Safety / Training
- Administration / Finance

TECHNICAL RESOURCES

- Adjunct instructors
- Repeater control ops, licensees
- Packet BBS sysops

CONTACTING SERVED AGENCIES (GOV'T AND NGO)

- Emergency Managers and Served Agencies want a **SINGLE** point of contact - **This is the RACES Radio Officer!**
- Team leaders or members should **NOT** contact any served agency **unless** specifically instructed by their RO to do so.

RACES Alerting Mechanism

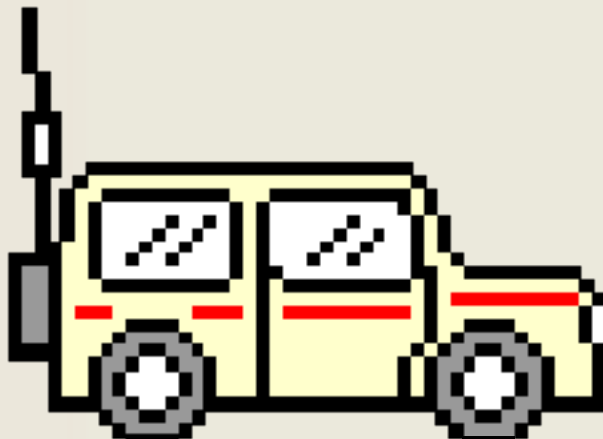
- **Arlington Alert Network is primary**
- **“Phone Tree” is used as backup**
 - Operator name, call sign, phone numbers
 - Home and work email addresses
 - Daytime availability
 - Standing assignments
 - Equipment, training, ability or physical restrictions
- **Drills to test e-alert procedure quarterly**
- **Drill to test manual backup system annually.**

ACTIVATION PLANNING

- **When is RACES activated?**
 - Activation Levels
- **Who Activates RACES?**
 - Arlington OEM authority to activate
- **How is RACES activated?**
 - Wilderness & Suburban Protocols
 - Using “Emergency Quick Start”
 - Mobilization Procedures

RACES Activation Levels:

- **LEVEL I = Notification**
- **LEVEL II = Standby**
(Preparation)
- **LEVEL III = Deployment**



LEVEL I = Notification

- Emergency Management notifies RO [Radio Officer] of conditions which **MAY** require RACES assistance
- Notification is **NOT** a general call-up.
- Requires **NO** action by individuals
- “Head’s up” to Group and Division Team Leaders to assess readiness of their personnel and equipment resources.

LEVEL II - STANDBY

- Means that the Radio Officer is advised that communications help **WILL LIKELY** be required.
- RO or Assistant [ARO] alerts team leaders and Support Station Operators
- AROs & field team leaders prepare:
- If escalation of a rapidly developing event is likely, notify teams, ensure their families are safe and “jump start” preparations for deployment.

LEVEL II = Standby FOR TEAM LEADERS & OPERATORS

An advisory to PREPARE for deployment.

- Team members monitor designated repeaters
- Inspect / test / assemble equipment “go kits”
- Charge batteries, fuel vehicles & generators
- Prepare water, food / clothing
- Family prepares to evacuate or shelter-in-place when you deploy, if you live in an affected neighborhood
- Team leaders contact their assigned agencies

LEVEL III = Deployment

- Radio Officer is notified by OEM that **IMMEDIATE ASSISTANCE** is **NOW** required.
- This is a **general call up** for assistance.
- Assigned members are **authorized to deploy** in accordance with approved operational plans.
- Others **in the activation area** should monitor designated repeaters for assistance requests and official notifications.

ACTIVATION AT LEVEL III: DEPLOYMENT

- **ARO for Operations activates Net Controls**
- **While the RO reports resource status to agencies**
- **While ARO-field team leaders activate a call-out**
 - **If not initiated previously at Level II**
- **Members check into Logistics Net to:**
 - **Get situation brief, check in, advise availability, then...**
 - **WAIT UNTIL CALLED for assignment**

REMEMBER: Your Job Is Communications for Your Served Agency

- Use of RACES assets for other purposes:
 - Assisting in searches,
 - Setting up or staffing shelters,
 - Moving, setting up or troubleshooting equipment,
 - Answering telephones or keyboarding data into networks...
- **MUST NOT** jeopardize the primary communication mission!

Maintaining a “Listening Watch” is basic to community readiness

The “Wilderness Protocol” versus... “Suburban Protocol”

- **What** are they?
- **How** they are different?
- **Why** we use the latter?
- **How** to initiate an alert?

The “Emergency Quick Start”

"Suburban Protocol"

- **Arlington County RACES recommendation:**
- **Monitor National Simplex 146.52 plus:**
 - Arlington RACES repeater 146.625- (PL107.2)
 - Statewide ARES / RACES common (146.415)
 - Arlington RACES “primary simplex” (146.430)
 - Arlington RACES “secondary calling” (146.580)
- **Extend hours of the listening watch**
 - 5 minutes at the top of the hour,
 - Every 3 hrs. 0700-2200, continuously, if possible, once a local emergency has been declared.

"Suburban Protocol" - Practice

Unannounced tests of the protocol are encouraged and may be conducted by any RACES operator:

HOW?

- Take roll call of monitoring stations
- Record date, time, frequency and call signs of participating stations
- Send report to RO during next net
- RO “atta boy” to recognize participants!

The “Wilderness Protocol”

- For rural areas outside reliable repeater coverage.
- Monitor Simplex 146.52 at the top of the hour,
 - Every 3 hrs. 0700-1600L, or whenever possible
 - Secondary is 446.000
- Listen for backpackers, motorists, and
 - Others requiring traveler’s aid or other assistance
 - Non-emergency calls just to see who is listening should wait until five minutes after the hour!

EMERGENCY “QUICK START” 1

- Within ARLINGTON COUNTY, if you **THINK** there is an emergency, which may require RACES assistance...
- **LISTEN!**
to designated OPNET simplex
(*primary simplex is 146.43*)
- **Is an OPERATIONS net in progress?**

EMERGENCY “QUICK START” 2

(Continued)

If an **OPERATIONS NET** is in progress:

- **DON'T** check directly into an OPNET
- **CHANGE** to the LOGISTICS repeater
(146.625- with PL 107.2)
- **CHECK INTO LOGNET** **only** if you are ready and available
- After checking in, **WAIT UNTIL CALLED** for an assignment.

EMERGENCY “QUICK START” 3

(continued)

If NO OPNET is ongoing

...but you believe that EmCom may be needed:

- Contact your RO or field team leader
- If unsuccessful, call up a net yourself!
- If you don't know how, we will learn in the next unit:

“Operating Procedures for Voice Nets”

OPERATIONS NET – “OPNET”

- **OPERATIONS** nets are directed
- Use of tactical call signs is routine
- OPNET is the Primary “working frequency” (usually simplex 146.43)
- Stations check with Net Control Station when assigned
- Report safety or operational problems to NCS
- (Sometimes called a “tactical net” by NGOs)

OPERATIONS NET – “OPNET” FUNCTIONS

Carrying traffic requested by served agencies only.

- **Tactical communications**: real-time info for immediate command and control purposes.
- **Record communications**: formal written messages sent by voice, data or CW, which is part of the official incident record.

LOGISTICS Net – “LOGNET”

- LOGNET is a Directed Net.
- Purpose is to reduce congestion on OPNET.
- Inform general RACES members of:
 - Situation & safety briefs , periodic updates
 - Assess equipment and personnel available
 - Schedule duty assignments
 - Relay non-sensitive traffic to net liaisons
- Uses a local coverage repeater: 146.625- (107.2)
- (Sometimes called a “resource net” by NGOs)

Arlington RACES Training

- **Specific to National Capitol Region**
- **Tailored to our local needs**
- **Emphasis on local risk assessment**
- **Response Plan / Mutual Aid Compact**
- **Integrate with CERT, Neighborhood Watch, Medical Reserve Corps**

Additional Training for RACES Operators:

- **Arlington RACES net:**
 - Wednesdays, 2200 ET, 146.625 (PL 107.2)
- **RACES drills and exercises**
- **Virginia RACES, Inc. Online materials**
- **FEMA Independent Study courses**

To download a FEMA EMI course go to:

<http://training.fema.gov/emiweb/IS/crslist.asp>

NEXT FOR BASIC OPERATOR TRAINING

- **UNIT 2: Operating Procedures for Voice Nets**
- **UNIT 3: Message Handling**
- **UNIT 4: Personal Preparedness and Equipment Recommendations**
- **UNIT 5: RACES Interfaces and Functions**
- **TEST**

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Source material

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