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## **SOG1 - Disaster Response Team (DRT) Activation**

### **General Information:**

**Activation of Virginia RACES Disaster Response Teams should be rapid and done in the most expedient manner.** Use of simultaneous, multiple methods is recommended. Team members are responsible to maintain their state registration with current home and work email, cellular, pager, home and work phone numbers – specifying the priority in which each telephone number and other contact method should be used.

**Local Radio Officers shall maintain current rosters, updated quarterly,** and distributed in hardcopy or electronic format to District Radio Officers, field team leaders and team members having standing assignments. Rosters shall describe the local alerting plan to include, but not limited to group email, text paging, telephone call down, repeater announcements and personal contacts. The alerting plan shall be tested and evaluated at least annually. Local activation plans shall be coordinated with served agencies, identify essential tasks, locations to be manned, required training, equipment and personnel resources, list site-specific operating procedures and job aids, to define the expectation of implementing this SOP at the local level.

**Any RACES member who believes that local activation may be required** (perhaps for widespread events such as winter storms, tornadoes, acts of terrorism, etc.), should monitor in programmed memory scan the designated Operations, Logistics and Skywarn repeaters for information and updates. If an Operations net is in progress, change to the Logistics frequency and wait until the Net Control calls for check ins. Identify by your call sign only and wait to be acknowledged. When recognized be prepared to provide the following information:

- \* Repeat your full call sign using standard ITU phonetics, and your name
- \* Availability to deploy (how soon, for how long)
- \* Equipment status (what equipment and power you have available for immediate use)
- \* Current location and status, fixed or mobile
- \* Transportation available
- \* Keep your comments brief as in the following example:

**“This is <your call>, name <your name>, I am <available / unavailable> in <number of > hours for <duration in hours>, and have <list equipment and emergency power> . I am currently <at home /work /mobile / > located <specify nearest cross street> with <4-wheel drive / other transport>, Over. “**

After checking in, wait for an assignment - do not proceed further without an order to deploy!

### **Activation Levels:**

RACES is often notified before specific communications needs have been determined. This is to enable leadership an opportunity to assess the resources available, get everyone located and ready to go. There are three (3) levels of activation:

**Level I – Advance Notice** *requires no action by DRT members or general RACES membership.* This is an advisory that Virginia RACES Officials have been notified of emergency management activity which MAY require RACES assistance. If rapid escalation to Level II is likely, District Radio Officers may contact local Radio Officers by email or telephone, to request that they assess the status of local resources. Local Radio Officers shall give “head’s up” notice to Assistants and team leaders to contact individual members to verify their location, availability and status by email. Email replies should indicate only member call sign and status as AVAILABLE or UNAVAILABLE in the subject line, so that it is unnecessary to open the message to determine who is available, but only when needed to review resource details listed in the text.

**If a local Radio Officer is unavailable**, the District Radio Officer will notify any assistant Radio Officer to contact field team leaders, emergency stations and other team members with standing assignments, as listed on the current roster to assess the type and quantity of resources available.

**Level II – Alert / Prepare / Standby** *DRT leaders and members are to prepare for full deployment within 8 hours and to WAIT until notified of an assignment.* Upon Level II District Radio Officer contacts local Radio Officers by email or telephone to ensure that they are present and available. If a local radio Officer is unavailable, the District Radio Officer will contact any Assistant Radio Officer or field team leader to notify other Assistants and Team Leaders of the pending situation, and to contact individual team members to determine their availability and status. Radio gear, personal protective equipment, vehicles and 24-hour kits of food, water clothing and shelter should be checked, assembled and packed for deployment. Field team leaders should prepare duty schedules and updated personnel rosters indicating the resources available and then report team status when ready, to the notifying official.

**Level III – Deployment** *is authorization for DRT members to proceed without delay to their duty assignments* in accordance with approved plans and mutual aid agreements, as may be modified by specific instructions by their Field Team Leader and RACES Officials. Local Radio Officers should send an activation report to the District Radio Officer by email upon Level III.

Team members shall send a station activation report to the alerting official, once operational.

## **Expectations for Activation:**

Virginia RACES expects DRT members be “ready to go” at all times. Most assignments will require TWO operators, one for the radio and another person to log, changing off periodically. New team members are routinely teamed with a more experienced operator, preferably people who live near each other, have similar schedules and can deploy together. You are expected to be able to activate within the requirements set by your currently assigned activation status. You may be asked if you can activate on a different schedule than the one you’ve chosen. In those instances, you are not *required* to comply - but it’s a great help to the mission if you can!

These expected response time window for each level of activation status is:

**ALERT TEAM:** Able to assemble personnel and equipment, getting underway within 4 hours of alerting, travel time up to 2 hours, set up and get on the air within 2 hours of arrival on-scene. Schedule 4-hour operating shifts among team members to rotate various duties required during a 12-hour operational period, continuing for up to 24 hours until arrival of a relief team.

**RELIEF TEAM:** Able to assemble personnel and equipment, getting underway within 12 hours of alerting, to relieve and take over for Alert team members requiring off-duty rotation, upon completion of a 12-hour operational period, in extreme circumstances not to exceed 24 hours.

**HOME TEAM “Reserve:** Fixed station support personnel operating from home stations or served agency locations, prepared to activate in their local area within 1 hour of alerting.

Home Team members serve rotating 4-hour watches over a 24/7 schedule as net controls and liaisons, and also assist in personnel scheduling, telephone and email resource coordination, logistics and supply. Specific assignments will vary based upon the operational needs of the incident, level of net activity, operating coverage needed and availability of qualified personnel. Home Team Reserve membership provides a service opportunity for those who are unable to qualify for Alert or Relief Team deployment due to employer schedule limitations, family obligations, physical or mobility limitations. Any eligible member of Virginia RACES who wishes to support the mutual aid EmCom mission is encouraged to assist.

**Once notified of Level II you should make preparations to deploy** once you have been instructed to do so by responsible RACES leadership. You should load your vehicle (if you haven’t already), get any gas, food, water, and personal items that you will need, review this manual, and mentally prepare yourself for the job at hand. Once the “Deploy” order has been given, you’re expected to be out the door and on your way without further delay!

**DO NOT**, under any circumstances, contact or volunteer to a served agency yourself! Working relationships and agreements with served agencies have been worked out to be executed in specific ways. RACES leadership is trained to assess the service request and mobilize those resources best suited to the incident. Follow the plan; it’s been written the way it is for a reason!

## **SOG2 - EmCom Needs and Behaviors for DRT**

### **Why Is Specialized Training And Testing Needed?**

Emergency Communications, or EmCom, is specific, often dealing with life-and-death situations and vital information. An untrained, unpracticed and inadequately equipped amateur radio operator is a burden to fellow team members and a liability to both the victims and responders.

**Once taught, the special skills necessary to be an effective EmCom operator are perishable and need constant exercise.** That exercise is simply not available to amateurs in the normal course of our hobby; even the experienced NTS traffic handler and contest operator, if not specifically trained, equipped and personally prepared, is unqualified for emergency work.

**Properly trained amateur radio EmCom operators must carry the tools and equipment that they need to do the job properly.** Emergency Management Officials requesting RACES assets are relieved to know that specially trained and disciplined volunteer responders are capable of doing the job, that they are self-managing and self-sufficient for at least the first 24 hours of an incident. Members of local RACES organizations are typically screened and issued identification that shows the controlling agency that they are allowed to be in secure areas such as police and fire stations, schools, public works depots and EOCs. It is for these reasons, that Emergency Management Officials all over the United States are loathe to allow untrained volunteers people to participate in the coordinated response to any incident - in any capacity.

### **What are the marks of a good emergency communicator?**

A good RACES EmCom operator:

- \* Is accurate, clear, and concise in all communications
- \* Listens - is aware of the activity on the assigned frequencies, doesn't "walk on" others using a frequency
- \* Always uses plain language - no "Q signals," "10-codes" or ham-specific "jargon"
- \* Knows and uses common terminology
- \* Uses ITU phonetics and prowords correctly
- \* Handles "formal" and "tactical" traffic equally well
- \* Works cooperatively with others, even under pressure and follows instructions.
- \* Has a working familiarity with and can operate effectively within the ICS

### **Behavior and Restrictions**

**The goal of all RACES members is in maintaining the highest standards, not only in performance but also in behavior.** As an EmCom operator, you are working with professionals, who expect professionalism in return. Recognize that amateur radio operators are individuals, but when you "step up to the plate" and volunteer to serve your Commonwealth and community you are part of a team which has been formed for the purpose of executing an approved plan, in accordance with policies, procedures and rules! There are certain things that RACES members are expected to do:

- \* The chain of command shall be followed at all times. This changes at each incident; it is incumbent on the individual member to find out what that is and work within it.

\* RACES personnel must abide by the applicable FCC regulations for whatever radio system is in use, at all times. Public Safety, Commercial and Amateur services have different rules!

\* RACES personnel are expected to participate in most available training exercises. Those who do not participate adequately are considered untrained and removed from active status.

\* RACES members shall conduct themselves professionally when dealing with the public, private relief organizations, as well as other amateur radio operators and our served agencies.

\* RACES Personnel should avoid distasteful or controversial public discussion or comments.

\* All RACES members must have current issued identification badges and FCC license copy in their possession at all times, and must display them prominently while on activation. Appropriate identification is required to ensure that volunteers are not mistaken as professional responders. This could result in RACES personnel being inappropriately assigned non-communication tasks which exceed their legal authority, training and ability.

\* RACES personnel should always present a clean, well-groomed, neat, utilitarian and professional appearance which builds confidence in the minds of organizations we support.

Alert and Relief team members shall wear civilian work clothing with a red identifying cap and outer garment bearing the RACES patch and call sign badge with RACES emblem. District staff is identified by a maroon outer garment, state staff by a forest green outer garment. Wearing of distinctive items of military or other uniform apparel or insignia not approved by the State RACES Radio Officer and the served agency is strictly prohibited.

\* RACES personnel shall not consume alcoholic beverages or controlled substances while on activation. Any member found under the influence of any intoxicant while activated will be removed from the scene and have his/her team membership immediately terminated.

\* RACES personnel shall not carry firearms during exercises or when activated, except for sworn law enforcement officers, required by their supervising authority to be armed off-duty.

\* All communications and statements made during an operation are to be treated as strictly confidential. Personnel will make no statements or provide information to the media or any non-departmental personnel at any time. Inquiries by the media must be directed to the Public Information Officer (PIO).

\* Members should always operate in a safe manner. If you are asked to do something that you consider unsafe, you have the right to refuse and to notify the incident Safety Officer.

## **Tasks and Activities**

There are a number of tasks that you may be asked to do in the course of a mission. The most common are:

**Portable Station:** A portable station is a solo assignment of a tactical nature. This usually involves carrying a VHF, UHF or dual-band radio and walking around. You may be assisting in damage assessment, neighborhood patrol, securing a foot perimeter on a SAR mission, observation, weather spotting, and other activities that require being on foot. Your gear should be carried so that you are self-contained for 12 hours - including food, water, and battery power. The standard of service expected is the ability to maintain communications (at a 4:1 Rx to Tx ratio) for a full operational period without resupply from your vehicle.

**Shadow Station:** This is a specialized form of “Portable” (or occasionally Mobile) assignment in which you are assigned to “shadow” (stay close to) an official or ICS Command Staff person, to ensure that they have “instant and continuously ready” access to radio communications. This function is performed in exactly the same manner of a radio operator in an infantry rifle platoon or company. When the official you’re shadowing needs to make or receive a call, you must be “right there, right now” to hand him/her the microphone.

**Mobile Station:** From your vehicle, you should be able to drive and perform a number of tactical or logistic functions. This may include road searches, sound sweeps, perimeter patrol, wide-area damage reports, storm tracking, personnel, equipment and supply transport, which require the use of Mobile Stations. This is usually a two-person team, with one person driving and operating the radio and the other navigating, spotting and logging all traffic.

**Relay Station:** This is a combination of Fixed and Mobile operating, always a two-person team, with one handling the radio and the other logging all traffic. You drive to a designated location, establish an operational position and relay traffic assigned to you. The relay may be performed on two or more frequencies, possibly requiring cross-band or cross mode operation, and may require setup of larger antennas than can be successfully supported by a vehicle in motion, thus making the Relay Station more demanding of equipment inventory and operating expertise than other assignments. See SOP 22.

**Fixed Station:** Fixed Stations are sometimes believed to be only dedicated net control, net liaison and EOC operators. However, there are many times - particularly in ground search and rescue, mass casualty, evacuation coordination, debris clearance and wildfire suppression, when RACES is expected to operate from a casualty collection point, staging area, equipment or supply depot, shelter site, Incident Command Post, police, fire station, hospital or temporary EOC. There may already be a pre-positioned antenna with coax terminating in a designated operator position with a desk, checklists and operating aids, in which you simply need to bring in and connect your equipment. In other cases the RACES operator must begin from a “cold start” and provide all equipment being used. An important part of a Fixed Station assignment is the ability to set up, trouble-shoot, test, maintain and take down that equipment. This is a two-person assignment, with one person handling the radio and the other logging all traffic. In most cases the Field Team Leader (FTL) and/or the ICS Communication Unit Leader (COML) will be a third person on the team.

## **SOG3 - Fundamentals of Emergency Communications**

This Suggested Operational Guidance contains the “foundations” of what is called “tactical” - as opposed to “formal” - radio communications, used by emergency responders and agencies. Some concepts may be new, and are a change from the normal manner in which amateur radio operators are used to operating in their normal daily activity. So, let’s briefly recap proper radio technique. If doing so appears at first basic and even insulting, its purpose is to make sure that we’re all “on the same page”!

### **Review: Proper Radio Technique**

Proper radio technique is the basis from which all other activities are built. If an operator’s technique isn’t solid, it’s possible to garble, obscure, or misconstrue the clarity of the message.

#### **Make sure that you inspect and test EVERY piece of equipment at least monthly.**

Use equipment installed at served agencies to check into nets and use them for exercises. Check power connections for proper polarity, adequate wire gage, proper connections and fusing. Check antennas and coax for proper grounding, lightning protection, continuity and operating VSWR. Test transceiver controls for proper operation. Measure and adjust frequency alignment, correct power output, and deviation to avoid clipping or splattering. FM deviation on equipment used for digital transmissions should not exceed 2.8 kHz. All operators authorized to use pre-positioned equipment at served agency sites must be instructed in how to set up and operate it. The operating manual, operators check list and quick reference guides must be kept at the operating position! In the field always carry manuals for your rigs. Learn to use your own equipment! This sounds odd, but you’d be surprised how many amateur radio operators can’t accomplish the simplest tasks on their radios. At a minimum, you should be able to use the VFO, program memory channels, set repeater offsets, including “odd” splits and select repeater access CTCSS tones. Prepare a reference card as an aid to programming and operating features and controls on each rig.

**Listen to the frequency before you transmit.** Be sure that there is not another contact in progress; make sure that the volume is high enough, and the squelch open enough, that you can hear any conversation on the frequency.

**Think before you speak.** Go over key points, and mentally rehearse what you need to say.

**Pause slightly before speaking.** After you press the PTT key, wait just a moment before you begin speaking. This allows your rig’s relays, the repeater’s circuitry, and the receiving station’s squelch to be working before speech modulation occurs. How many times have you heard the beginning of someone’s sentence cut off? That’s what happens if you don’t pause slightly - and in EmCom, it wastes time when you must repeat your traffic.

**Talk across your microphone, not into it.** Your voice won’t be over-modulated, you’ll avoid “popping” and distracting breath sounds and everyone will hear you more clearly.

**Enunciate clearly.** Speak in a normal conversational tone of voice. Don’t slur and

don't shout! When an emergency happens, it's all too easy to start talking quickly and loudly. This makes it far harder to understand, and far easier to make a mistake in copying a message. (Don't overcompensate by speaking too softly, either - be confident, not loud!)

**Wait a couple of seconds for a previous contact to finish.** Don't jump right in; especially on a repeater, the timer may not have reset - which may cause an embarrassing timeout!

**Use the proword "OVER"** when ever you expect the other station to acknowledge or reply to your transmission. It means, "I am done talking, and I ready to listen to your reply." On repeaters, we're not accustomed to using this term; but in EmCom, particularly on SSB or FM simplex it's vital to do this to ensure that everything necessary has been covered.

### **Differences Between Tactical and Formal Communications**

When a radio operator, used to talking on amateur radio repeaters, is first thrust into operating during an emergency he/she is often overwhelmed. Aside from the emphasis (and pressure) being placed on the "ABC's" of Accuracy, Brevity, Clarity, there are "prowords" (procedural words) that have specific, and important, meanings; the manner in which contacts are handled is more "professional"; and the traffic is more concise and fast-paced than one finds on the local repeater.

Here are a few of the most important differences:

- \* If written messages are sent will be recorded on either an EOC or RACES message form; (ICS Form 213, or a variant).
- \*The ARRL Radiogram, limited to 25 words, with its arcane transmission protocol, is not used. An ICS message is read and recorded in the same manner as a telephone message.
- \* All traffic is logged. If the traffic is not in the form of written messages, the log entry must contain a line-item, brief, accurate synopsis of the conversation. Predefined abbreviations abound, and the ability to write quickly is required.
- \* Parties are not identified by an FCC call sign; "tactical" call signs, usually with a team identifier, position title, location or function are used instead.
- \* Instead of relying on repeater "roger beeps" or saying "clear", only the pro words "over" or "out" are used to elicit a response or end the conversation, respectively. ("Over and out" are not used together, as doing so is contradictory, a phrase that no trained operator **ever** uses!)

### **Standard ITU Phonetics**

While it doesn't take much effort to speak into a microphone and listen, it does take some training and practice to quickly and accurately convey exact information. Speak distinctly at all times. If information is to be written, pace your speech accordingly.

For critical information, or under noisy conditions, spell words with standard phonetics. The International Telecommunication Union (ITU) phonetics are the recognized standard of disaster relief, aviation, maritime and military services worldwide. They were chosen so that each word sounds completely different from all others and could be readily distinguished by non-English speakers in poor HF voice operating conditions:

Letters:

A - alfa (AL-fa)

N - november (no-VEM-ber)

Figures:

1 - one

Virginia RACES, Inc.  
Standard Operational Guidance (SOG)  
for Disaster Response Teams

(WON)		
B - bravo (BRAH-voh) (TOOO)	O - oscar (OSS-cah)	2 - two
C - charlie (CHAR-lee) (tharr-EE)	P - papa (PAH-PAH)	3 - three
D - delta (DELL-tah) (FOWer)	Q - quebec (kay-BECK)	4 - four
E - echo (ECK-oh)	R - romeo (ROW-me-oh)	5 - five (FIFE)
F - foxtrot (FOKS-trot) (SICKS)	S - sierra (SEE-air-rah)	6 - six
G - golf (GOLF) (SEV-ven)	T - tango (TANG-go)	7 - seven
H - hotel (HOH-tell) (ATE)	U - uniform (YOU-ni-form)	8 - eight
I - india (IN-dee-ah) (NINE-er)	V - victor (VIK-tor)	9 - nine
J - juliet (JU-lee-ett) ro)	W - whiskey (WISS-key)	0 - zero (ZEE-
K - kilo (KEY-loh)	X - x-ray (ECKS-ray)	
L - lima (LEE-mah)	Y - yankee (YANG-key)	
M - mike (MIKE)	Z - zulu (ZOO-loo)	

You may still occasionally hear “Police Phonetics” which were adopted by the Association of Public-Safety Communications Officials (APCO). **RACES doesn’t use them for transmission**, but it is helpful to know them in case you’re on the receiving end of somebody else who does!

A - Adam	H - Henry	O - Ocean	V - Victor
B - Boy	I - Ida	P - Paul	W - William
C - Charles	J - John	Q - Queen	X - Xray
D - David	K - King	R - Robert	Y - Young
E - Edward	L - Lincoln	S - Sam	Z - Zebra
F - Frank	M - Mary	T - Tom	
G - George	N - Nora	U - Union	

### “Figures” / Numbers

Numbers are pronounced as individuals. The number 60 is voiced as “figures six zero”, not “sixty”. The number 509 is voiced “figures five zero niner”, not “five hundred nine” and NOT “five oh nine”. Never use the initial OSCAR (Oh) if you mean the figure ZERO.

## **SOG6 - DRT Tactical Call Sign Use**

**Emergency communications use tactical call signs exclusively to call other stations.** You don't contact another station on an emergency net by using their amateur call sign, because if you have a reason to call them on the net, they have either a DESIGNATOR (if a mobile station) or a LOCATION (if a fixed station) and a FUNCTION!

**Maintaining Logs and Status Boards:** Field Team Leaders use either STATUS.doc or ICS Form 214 to track personnel assignments, locations and tactical call signs. Individual operators use either OPLOG.doc or ICS Form 214a to identify themselves on the station log. Each duty rotation, such as the operator and logger swapping duties within an operational period, as well as take over by a relief team at the end of an operational period, must also be recorded.

**Fixed station tactical calls** are indicative of a GEOGRAPHIC NAME and FUNCTION. The Incident Command Post for a search operation in the Fort Valley is "Fort Valley Base."

**Mobile station tactical calls** are easily distinguished from fixed stations by their FUNCTION, followed by use of a unique DESIGNATOR (alpha or numeric) such as "SUPPLY ONE. "

**The tactical call sign "COMMAND"** is reserved for the senior public safety official in charge of the incident, i.e. the incident commander. The only time a RACES operator uses "Command" in their tactical call is when speaking for, by the authority of, and under the direct, real-time supervision of the IC, in immediate hearing range and physical proximity.

If operating a served agency radio which is on a non-amateur frequency, you'll also end transmissions with a tactical call sign.

Whenever using an amateur frequency, append your full FCC call sign to the end of your last transmission (or every ten minutes if NCS) and let the other station end with his/hers.

To contact another station always state the called station first, followed by the prowords "this is", then your station name. Here are some examples:

### **Calling a station:**

"Team 2, this is SAR Base"  
"Fair Oaks Command, this is Brush 21"

The correct response is to identify with YOUR call sign, followed by the prowords "go ahead":

"Team 2, go ahead"  
"Brush 21, go ahead"

**To end a contact, use the term "out" - never "clear".**

Here's how it sounds:

"SAR Base out"

“Fair Oaks Command out”  
“Operations out, WC4VAC” (if operating on amateur frequencies.)

**What if you need to call a specific person at a location? Easy:**

“Fairfax EOC, this is Fair Oaks Command with contact for Deputy Chief Jones.”  
**But what if you have a written message to deliver?**

Even easier:

“Fairfax EOC, this is Fair Oaks Command with traffic”  
(Contrary to what some teach, you don’t identify the recipient of a written message in the call - it will be in the message itself, and there’s no reason to duplicate the information!)

Remember: the only time an amateur call sign is used is when using the amateur frequencies, and then **only** at the termination of a conversation (emergency conversations rarely - if ever - proceed past the FCC’s 10-minute limit for station identification. If for some reason one does, one must of course ID as required.)

**VA RACES Specific Call signs:**

When activated and on-station the DRT team designator is used as the tactical call of the Field Team Leader. Designators are alpha-numeric using the Operational Area, RACES District, and Team Designator. For instance, the field team leader for the first (or only) team in District Two, (which is in Operational Area “C”) would be designated “Charlie Two Alpha” The field team leader position will usually change with each operational period throughout a lengthy incident, so “Charlie Two Alpha” gives everyone a way to get in touch with the person in charge of a specific team, without having to remember just who that is at any particular time.

## **SOG8 - Understanding Communication Plans**

**In any incident, there is a Communications Plan** (aka “comm plan”.) In small incidents or exercises it may not be written down, but in any incident following general ICS principles it will be (form ICS 205.) Written or not, there are common points of information which you need to know to effectively do your job.

One area of difficulty in reading a comm plan is understanding varying uses of terminology. Even within the amateur radio community, you will see differences

### **What are the channels used in a RACES or ICS standard comm plan?**

Remember that the term “channel” simply means “frequency”; think of channels as being similar to the memories on your radio. Public service radios have only certain frequencies on which they can operate; they don’t have VFOs, and are not generally frequency agile. The users of these radios often (in fact, usually) have no idea what frequency they operate on, only the channel number and/or channel use/designation.

### **Who writes the Plan?**

The comm plan is written by the incident Communication Unit Leader (COML), who works under the Logistics Section Chief. For exercises and small, local incidents a RACES field team leader may write a simple plan by either using the Virginia RACES Form ICS 205 template or on the STATUS.DOC form. On large incidents requiring a public safety response the plan will be written on the ICS Form 205 by someone with police or fire dispatch training, such as a Virginia State Police (VSP), US Forest Service (USFS) or Virginia Department of Forestry (VDF) dispatcher. Depending on the COML’s training, you will see the following:

**Operations OPNET:** In RACES practice, operations frequencies are wide area coverage repeaters which enable reliable district-wide communication between local EOCs, command positions in the Operations branch and field operators. (Think of it as communication *up and down* the chain of command.) These channels are where the command and control of those responding to an incident is done. Operations channels are only used by or for the Operations section personnel, and are usually where most of the traffic takes place.

**Logistics LOGNET:** In RACES practice logistics channels are local area coverage repeaters adequate to communicate between resources and the incident area. These channels are to deal with the communication necessary for support issues - scheduling, material deliveries, staging area communications, and other uses that are necessary to make sure that people and things are where they need to be, when they need to be. Logistics channels can be used by the Logistics, Planning, or Finance sections, depending on who needs to get involved in any one topic. They can be used up and down the structure in those sections, or can be used across the ICS structure for these sections to coordinate amongst each other.

**Logistics channels may also include simplex frequencies** used “inside” a function or resource. For instance, RACES establishes a Logistics channel in order to determine and arrange staffing, monitor equipment needs, and other things necessary for us to do our job. This channel will be separate from that which we use to position our teams in the field.

**Tactical TACNET:** Tactical channels are simplex frequencies used for incident area short range communication between team members, and to contact other teams with which they are working. Police, VDOT and public works, use “talk-around” for direct unit-to-unit on-scene communication which doesn’t require everyone else to monitor ; they call this a “Tac” (short for “tactical”) channel. These are the frequencies that are closest to the actual work being done; on a large incident there may be dozens of tactical channels!

**Administrative ADMIN:** May use either FM simplex, UHF repeaters or 2 meters SSB, as needed for coverage of the affected area, for communication amongst the ICS Command Staff, and for Section Chiefs to communicate directly with the IC and/or the rest of the Command Staff. Sometimes referred to as “command” channels in ARES and Red Cross nets. *In Virginia RACES operations use of the term “Command” refers only to the senior public safety official in charge of the incident, the Incident Commander or “IC.”*

### Non-Standard References

As noted, there have been differences in the manner in which various groups have written comm plans; ICS training has attempted to address this, but you may still see the following:

**“Talk-around” are ADMIN alternate simplex frequencies:** You may see “talkaround or Admin (“administrative”) channels in a comm plan on very large or complex incidents. These are used for routine and “chatty” traffic (“I’m going to lunch, want anything?”) among ICS overhead staff. They are often used simply to keep track of individuals (“grab this radio while you’re on break, so if we need you we can call you”), as a paging system, to broadcast information to a large group of staff (“breakfast is ready in the food trailer”), and other things not related to the incident itself (“Bill, you left your lights on.”) You may also see them referred to as “camp”, “CP”, “staff”, and more accurate “chat”.

There is no standard in place for these types of channels - you’ll have to “go with the flow”.

**Command instead of Operations, Resource instead of Logistics:** ARES and American Red Cross (ARC) comm plans, as well as those written by people who work closely with them, seldom follow ICS conventions; you will see “Command” used by them to describe what are clearly “Operations” channels, and “Resource” instead of the ICS “Logistics.” By reading the comm plan carefully, checking who is using the channel and what it’s for, you should be able to discern when this occurs.

### Information Contained In The Communications Plan

An ICS Form 205 Communications Plan contains channel designator, frequency, group /section /team /branch /division that the channel is assigned to, the function of that channel, where the radio equipment or authorization to use the frequency comes from, and other important notes.

The Virginia RACES ICS Form 205 template enables listing predetermined, established nets and uses “fill in the blank” format to enter local OPNET and LOGNET repeaters, NCS callsigns, etc.

## **What Use Is A Communication Plan To RACES Responders?**

When working in an Incident Command Post or EOC, it's imperative to know on what channels you'll find certain people. For instance, a team might call in requesting meals to be delivered in the field. There are several ways you can transmit this message, but if you have access to the correct channels the quickest and most efficient is to call the Logistics person in charge of food. In order to do so, you need to know what channel is being used for that function. The Commplan will tell you what you need to know to effectively route traffic.

If you're deployed in the field, the Commplan is very useful. You may be on a SAR mission, and need to communicate with another team that is close by - but neither knows the other's radio frequency or channel. Again, if you have access to the channels, it's a simple matter to look at the commplan, find out how to contact the other team, and relay the message.

Refer to the example Virginia RACES ICS Form 205 Template on the following page.

# Virginia RACES Communication Plan Template

<b>Radio Communications Plan – ICS 205</b>	1. Incident Name	2. Date / Time Prepared	3. Operational Period Date / Time
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## 4. Amateur Radio Service (ARS) Radio Channel Utilization

Radio Type/ Cache	Channel ID	Function	Frequency / Tone	Assigned VEN Net	Tactical Calls of NCS, Agencies and Liaisons
VHF-2m	Alpha 1	OPNET PRIMARY SIMP			
VHF-2m	Alpha 2	OPNET ALT. SIMPLEX	146.415	VEN/J	Statewide Mutual Aid, Drills, Tests and Training
VHF-2m	Alpha 3	OPNET BACKUP RPTR			
VHF-2m	Bravo 1	LOGNET PRIMARY RPTR			
VHF-2m	Bravo 2	LOGNET ALT. SIMPLEX			
UHF-70cm	Bravo 3	LOGNET ALT. SIMPLEX			
VHF-70cm	Charlie 1	ADMIN PRIMARY SIMPLEX			
VHF-2mSSB	Charlie 2	ADMIN ALT. FREQ	144.250USB	VEN/I	
UHF-70cm	Charlie 3	ADMIN BACKUP RPTR			
VHF-2m	Delta 1	DIGITAL OPS	145.73	VEN/E	No voice! Digital only! FM 1200 baud and TCP/IP
HF-75m	Echo 1	HF EVENING PRIMARY	3947 LSB	VEN/A	
HF-75m	Echo 2	HF EVENING ALT	3910 LSB	VEN/B	
HF-40m	Foxtrot 1	HF DAY PRIMARY	7243 LSB	VEN/A	
HF-40m	Foxtrot 2	HF DAY ALTERNATE	7260 LSB	VEN/B	

5. Prepared by (usually by Radio Officer or Field Team Leader)

Name \_\_\_\_\_ FCC Call sign \_\_\_\_\_



## **SOG10 - DRT Personal Preparedness**

**The approach used by most search and rescue and survival trainers today is to divide survival gear into several “layers.”** Just like clothing, these layers are progressive and build on each other. RACES Disaster Response Team members are required to be prepared up to the 24-hour level. It is highly recommend that you also prepare to the 72-hour level. Keep in mind that these are minimums; so the better prepared beyond recommended minimums, the safer and more comfortable you will be!

**Your 24-hour Pack** - The concept of your 24-hour pack is that its contents are up to you, but that it must enable you to:

- \* Provide communications while traveling moving on foot, outdoors, in varied terrain, away from your vehicle, for up to a 12-hour shift, an “operational period” to use the ICS term.
- \* Provide food and shelter supplies to rest during breaks until your next shift, and remaining available up to 24 hours or until relieved
- \* Be prepared (in a worst case) to spend a night afield, if necessary
- \* Be equipped to perform your mission safely, in relative comfort.

Before going any further, an important safety tip! Careful attention must be given to the weight of necessary items that you **MUST** carry to safely complete your mission, your physical condition, and your need for mobility. Only you can address this issue - everyone is different - but if the weight is such that you can't carry it for an operational period, then you must change your kit so that you can! The approach for the 24-hour pack widely used by search and rescue groups and highly recommended is a total package consisting of three LEVELS:

### **Level I: - Those things that you normally carry on your person.**

Suggested items include your cell phone or pager if used for alerting, 2 meter HT, pocket knife (Swiss Army or Leatherman types highly recommended), small “backup” flashlight (single AA LED type which clips onto your key ring), driver's license, FCC license copy and RACES ID, and some cash (small bills and change are very useful.)

### **Level II: Consists of basic operating equipment, comfort and safety items:**

Personal first aid kit  
"Stuffable" rain gear and hat  
HT, 2 meter, 5w, minimum of ten memories, frequency agile, field programmable (if not carried in Level I), dual-band 2m/70 cm is recommended  
Extra HT battery and AA battery case  
Earphone  
Notebook and pencil  
Map and compass  
Larger primary flashlight with extra bulb and batteries (4-AA type recommended)  
Water bottle/canteen/ minimum 1 qt., 2 qts. are recommended  
At least 2 methods of starting a fire, such as matches and lighter  
Snacks and personal medications for one day  
Sunglasses  
Multi-tool or pocket knife (if not carried at Level I)  
Wind-up J-pole antenna or;

Flexible dual-band 1/4 wave antenna with “tiger-tail” counterpoise

Level II items can be carried easily in a lumbar pack, multi-pocket vest, or zippered waist pouch which fits easily in your desk drawer or briefcase.

**Level III: - Bulky life support items, in "to go" condition, stashed in a backpack,** and containing at least the Ten Essentials (less what’s carried in Levels I and II, of course):

- Map(s)
- Compass
- Knife
- Fire starting materials
- Signaling materials (whistle and signal mirror or flare)
- Emergency shelter
- Extra clothing
- Water (additional 2 quarts)
- Food (2 meals plus snacks)
- First aid kit.

Your radio and accessories should be carried in a utility pouch, which may either attached with a snap-link to the outside of your backpack, worn on load-bearing suspenders or a chest pack.

**Add your choice of the following additional items:**

**Emergency Shelter:** Clothing and rain gear are important for preventing hypothermia as well as determining how comfortably you may spend the night. A large plastic trash bag is far better than nothing, and takes little space. A better choice, and the choice of experts like Air Force survival instructor Peter Kummerfeldt, is a large 20-mil trash bag of the type used by VDOT road cleanup crews. They are big enough for a six-foot person, very difficult to tear, and come in “safety orange.” A second choice is a commercial-grade 55gal drum liner.

**Mess kit:** The Sierra cup is too small, GI and mountaineering mess kits are too big. A GI canteen cup with folding handle and nesting warming stand enables a quick hot beverage when warmed with a Trioxane fuel bar. Tie a military stainless steel mess kit spoon, on a lanyard over your head and poke it in your shirt pocket. You will always have mess gear. Sharpen one side to use as a knife.

**Hat:** Hardhats offer impact and rain protection and improve visibility. A full brim model with a full head /face cover (balaclava) of polypropylene or wool provides warmth.

**Rope:** 20 feet of 1" nylon, tubular "flat-line" is useful, for tying harnesses, securing equipment, etc. A 50-foot length of parachute cord is another useful item. Include snap links!

**Glasses:** UV protection is important in snow and desert conditions, or on the water. Impact and splash protection is important if you work with lead-acid batteries, use hand tools, or walk through heavily wooded areas. Eye protection with protective side-guards meeting ANSI Z87.1-1989 is recommended. Wearers of prescription eyewear should always carry a spare pair.

**Machete or cruising axe:** Useful for gathering fire good, building emergency shelters or clearing a path for a "stokes" team. (one per field team)

**Saw:** A folding camp saw for shelter and fire building. The "Sawvivor" is the best of the bunch (one per field team).

**Spade:** For field sanitation and digging fire pits. A Glock or Gerber folding military-style entrenching tool is useful and lightweight (one per field team).

**Sleep Pad:** A light-weight, closed cell foam pad for sitting or kneeling during breaks. Pad insulates you from the cold ground, protects you from jagged rocks and for sleeping.

**Poncho:** A military-style ripstop nylon poncho rolls compactly and can be used as improvised shelter, worn as rain protection or used as a ground cover. Also good are bright colored, fabric-backed rescue-type Space Blankets®, which also function as a signal panel. Some SAR groups recommend carrying two of these, using one as a ground cover while wrapping yourself (or the victim) up with the other.

### **Suggestions from those who've "been there and done that..."**

Toilet paper roll sealed in a plastic bag or travel-pack baby wipes.  
Waterless hand cleaner / sanitizer in plastic squeeze bottle  
RiteInTheRain® pocket bound notebook, which doesn't fall apart in the rain  
Grease pencil and/or Space Pen®, writes anytime, anywhere  
"Rite Aid®" Instant Cold Compress (7 ozs.), keeps you going if you sprain an ankle.  
Insect repellent  
Sunscreen. SPF 30  
Canteen cup or small utility pot and spoon  
Duct tape for repairs  
Single-burner stove, MSR®, or Peak1® multi-fuel, or Sterno® or Esbit ® solid fuel.  
Ear muffs, keep your ears warm and your radio earphone in place  
Nomex hood is warm when wet and gives additional protection, about \$20  
Fire fighter gloves give puncture protection and are warm when wet  
Glow sticks give useful light for a long time

Remember that you won't have room to carry all of this "stuff" within a practical 25-30 pound limit. Therefore, you must make decisions regarding what is important for YOUR situation, taking into consideration shared items, which may be carried by other members of your team.

**The 72-hour Annex can be kept in your vehicle.** It is best thought of as a resupply point for your 24-hour kit. In the Annex you should have:

- 2 full changes of clothes, including socks and underwear
- Personal hygiene items - soap, shampoo, hand towel, razors, deodorant, toothpaste, floss
- Food for 3 days - 6 meals are recommended as a minimum
- Water – 1 gallon per day as a minimum, a 5 gallon container is recommended
- Sleeping bag, wool blanket or poncho liner
- Cold weather clothing - pants, socks, parka
- Rain gear
- Stock of AA batteries for radio and flashlights, 24 total are recommended

**Notes on clothing:** Clothing is your first line of defense against insects, abrasion and exposure to the elements. It must be durable, wind and rain resistant, comfortable to operate in and layered for adaptability. Being able to add or remove layers is necessary to maintain body heat, and to regulate body temperature during and after exertion.

Virginia weather is highly variable. A sudden rainstorm may occur at any time of year, and hypothermia can occur at surprisingly high temperatures. The first consideration is therefore keeping dry. In the fall and winter months windy, rainy days in the 40s have killed the unprepared. Here are some general guidelines:

**Hat:** At 40° F. an uncovered head radiates one half of the body's heat production. If you get hot "on the march," take off your hat and unzip your or outer garment.

**Wicking initial layer:** Avoid cotton socks and underwear which bunch up when sweat-soaked, causing chafing and blisters, and are cold and clammy when wet. Instead, use polypropylene or similar material next to the skin to wick away perspiration. Polypropylene underwear and a wind shell or anorak of 60/40 ripstop material is amazingly warm during active operations or periods of heavy exertion, if you have a wool sweater or synthetic fleece to put on during rest stops.

**Outer wind / water resistant shell garment:** Breathable fabrics such as GoreTex® are effective. A less expensive alternative is 60/40 poly/cotton ripstop or sateen fabric of the type used in military field uniforms. Buy the best you can afford. Cheaper garments are more susceptible to tears and abrasion. GoreTex must be kept clean to retain its qualities!

**Warmth layering garment:** Wool is a popular choice because it is warm when wet. A good modern equivalent are synthetic fleece or pile. Quilted bunting of polyester fiberfill is also warm when wet. Beware: down garments collapse and lose their loft in cold/wet environments.

**Boots.** Protect your feet and prevent injury, especially falls. Your feet are your basic means of transportation and deserve careful attention. Sturdy hiking boots having a traction sole are recommended. Boots should be of all-leather construction and waterproofed; wildland firefighters are very fond of a product called Obernaufs.

**Socks:** Wear light non-cotton sock liners next to your skin to wick away moisture and control abrasion. Over those wear heavier wool or wool-blend boot socks for cushioning and warmth. This combination is suitable year-round. An extra pair of dry socks, sealed in a Ziploc® bag in your pack has a dramatic effect upon your attitude in cold/wet conditions. Moleskin should be carried by everyone and applied at the first sign of "hot spots" which lead to blistering.

**Gaiters:** Often overlooked, these are handy to keep brush, dirt, rocks, rain and snow out of your boots. When sprayed with insect repellent they are your first line of defense against biting insects.

**Gloves:** Leather gloves are necessary for any rope work, protection from rocks and briars and in any working with hand tools or fire. Use wool, silk, or polypropylene liners for layering and finger-less mitts for warmth when manual dexterity is required.

## **SOG12 - Stress Management and Decision Making**

**Stress is a normal response to abnormal events.** It occurs often throughout the course of any average day. However, because of the additional demands placed on disaster workers, the social, psychological and physical stress that occurs following an emergency such as a natural disaster is of primary concern, because it can affect mission effectiveness and safety. How team members adapt to those demands is critical to individual survival, accomplishment of the mission and safe demobilization so that we all can return to our jobs and families.

**No two people react to similar stress situations in exactly the same way.** A wide range of stress reactions are possible to include, but not limited to increased respiration, perspiration and blood pressure, muffled hearing, hot or cold flashes, headaches or nausea, light headedness, irritability, increased (or decreased) appetite or thirst, short-term memory loss, disorientation, stuttering, poor concentration, loss of objectivity or inability to logically to solve problems.

**It is essential that those involved in disaster work become sensitive to and identify their reactions to stress before they become involved in stressful situations.**

Awareness of and a desire to work within your stress levels is paramount in being an effective disaster worker. Being prepared by understanding your reactions before they occur will lessen the impact of them during an emergency and speed your recovery afterward.

**Stress symptoms are often apparent to fellow disaster workers before they become apparent to the person experiencing them.** Stress, which is out of control, may jeopardize the safety of the person experiencing the problems as well as associated workers and in severe cases the entire effort. In their best interest, the interests of fellow workers and the operation, suspected stress overload should be reported to the unit supervisor immediately. It may be necessary to temporarily relieve an individual who is experiencing severe stress symptoms.

**Effective Management Reduces Stress.** Radio Officers and their Assistants must demonstrate personal leadership and effective management by adequate planning and organizing their RACES teams to carry out their various served agency assignments

- Development of position descriptions, job aids, check lists
- Rotate personnel for breaks or new duties
- Phase out operators or workers gradually
- Provide for proper nutrition
- Encourage exercise during breaks whenever possible. Take a walk or run outdoors, run in place or do calisthenics. Exercise is a great stress buster, is free, can be done anywhere and is *medically necessary during long duration events* to maintain proper circulation to prevent blood clots and other complications resulting from prolonged sedentary duties
- Medically evaluate any physical symptoms
- If any team member appears affected by events, notify and coordinate with served agency

**Goal-Oriented Behavior.** Persons under stress need to have something useful to do and need to understand how to do it.

- Explain assignments, use of check lists, job aids
- Constructive use of performance rating, praise, well done, thank you!

**Interaction with Others.** Sympathetic, friendly interaction is vital for adequate psychological support of RACES field team members.

- Team inexperienced operators with mentors
- Throughout activation emphasize teamwork
- Encourage breaks

**Demobilization Debrief** - demobilization check-out per Agency SOP. Use ICS Form 221.

Encourage personnel to discuss and share their feelings and prepare them to go home.

**Ask participants about:**

- What went well? *Equipment problems?*
- What did we learn? *Procedure problems?*
- How could we have done better?
- Are you OK? *(Also ask co-workers)*

## Decision-Making In A Crisis

When an emergency and its associated stress occurs, it's not unusual that our decision-making abilities degrade. It's helpful under those circumstances to take a mental "step back" and get a "breath of fresh air."

**Use this six-step process to give your brain that fresh look which it needs in trying times:**

- **Size Up** - the situation
- **Identify** - the possibilities
- **Determine** - the objectives
- **Identify** - the resources needed
- **Build** - a plan
- **Take** - action!

**Let's look at these individually.**

**1) Size up the situation:** Take a deep breath. Gather your information; what do you know for certain about this situation? Is there any information you don't have, but need? Get it! Your immediate goal is to examine the situation accurately enough to answer these questions:

*What is happening? Who is involved? What are the stakes?*

**2) Identify the possibilities:** What are the ways in which you could address this problem? Think of all the possible solutions that could apply, then narrow the focus to those that are within your ability to accomplish. **While you're at it, you need to consider all of the things that could go wrong and interfere with any possible solution!**

**3) Determine the objectives:** What is your mission? What really needs to be done? Think about how this problem affects your overall mission; the mission objectives will drive your choice amongst the alternatives you've already identified.

**4) Identify the resources you need:** Remember, resources include people, equipment, and data. Do you have what you need in all three categories? If not, make a list of what you need and get it. Remember that most people neglect the "data" category - any problem requires information to solve!

**5) Build a plan:** Building a plan is easy - all you have to do is figure out:

- **What** needs to be done?
- **Who** can and will be able to do it?
- **When** can they get it done?

*Once you've figured these things out, it's just a matter of assigning the tasks!*

**6) Take action!:** Before doing anything, consider how the solution is going to be implemented - and remember that any solution will have repercussions.

***Be sure to monitor the results!***

**SOG18 - DRT Activation Checklist**

***Upon notification by your Team Leader of Level II - When put on standby:***

- (1) Make sure that your family is safe and secure.** Before you respond, make sure that your family is provided for, that they know where you're going, and work out a method to get in contact. This may be handled by giving him/her the name and phone number of the RACES Logistics NCS, with instructions to call if something is urgent.
- (2) Check into the RACES Logistics Net;** monitor the frequency for updates and assignments. Use this time to review your RACES Quick Reference to update any information needed.
- (3) Prepare yourself.** Make sure that you have your 24-hour kit in your vehicle, food and drink for the day. Always carry rain gear, an extra warm layer of clothing, work boots and extra dry socks. Check the NOAA weather radio and ensure that you have suitable clothing for any weather changes anticipated within the next 24 hours. Be absolutely sure that you have a copy of your FCC license and your RACES ID badge.
- (4) Check your gear.** Turn radios on, check batteries, tighten antenna connections; make sure that the equipment you'll need is on hand, loaded in the vehicle, and ready to go.
- (5) Fuel your vehicle,** if your tank isn't full. **Also check** tire pressure and oil levels, head/tail/turn lights, auxiliary lighting (both warning and illumination), and signage.
- (6) Obtain sufficient food and water** to last 24 hours without re-supply.
- (7) Start your Personal Log** (ICS 214a.)
- (8) If time allows, review the material** in your handbook, focusing on the sections dealing with relay and logging procedures. Re-acquaint yourself with the ICS and RACES forms.
- (9) Upon arrival let LOGSNET NCS know that you've arrived.** Team leaders send an activation report, once the assembled team has arrived on-assignment and is operational.

ST <alerting official>@<PBBS> <if sent via packet>

SUBJECT: ACTIVATION REPORT <insert jurisdiction name, city, state>

<THIS IS A DRILL>

- [1] <jurisdiction city or county> RACES ACTIVATED LEVEL III
- [2] LOCAL TIME
- [3] LIAISON STATION TACTICAL CALL SIGN
- [4] LIAISON STATION LOCATION <name of facility, hospital, EOC, etc>
- [5] SERVED AGENCY
- [6] SERVED AGENCY CONTACT AND TITLE
- [7] VOICE TELEPHONE <10 digits>
- [8] FAX TELEPHONE <10 digits>
- [9] EMAIL ADDRESS(es)
- [10] AVAILABLE OPERATING FREQUENCIES AND MODES

<THIS IS A DRILL>  
/SIGNATURE/ <YOURCALL><APPOINTMENT>

**(9) Find the incident check in point;** and notify the RACES Field Team Leader of your arrival.

**(10) Obtain your assignment;** make sure that you know what frequencies are in use, which nets are active, and any mission-specific information. If a SAR mission, be sure you have the Injury and fatality codes. IF available, get a copy of the Incident Radio Comm Plan (ICS 205).

## **SOG26 - Personal Protective Equipment and Precautions**

A general guide to personal protective measures and equipment for prevention of injuries due to incidental exposure to physical /chemical / biological hazards at disaster sites where VARACES personnel may be deployed.

### **GENERAL:**

*As a matter of absolute organization policy, Virginia RACES officials shall not knowingly deploy or assign volunteers to any locations or assignments which place them in physical danger.*

However, any field deployment poses a potential risk of accident or personal injury. This document provides general guidance to VARACES leadership and individual members regarding unit awareness of hazards which could be encountered and general recommendations for personal protective measures and equipment. Examples of common risk factors which may be encountered by deployed VARACES personnel include but are not limited to:

- Travel hazards to and from the deployment site
- Weather or environmental effects, lightning, cold, wet, wind, dust, flying debris
- Incidental exposure to chemicals or pathogens in flood waters, etc.
- Terrain, slippery or insecure footing, risk of falls, injuries
- Tool or equipment use, risk of hand or eye injuries, electric shock
- Human factors, stress or fatigue.

### **RESPONSIBILITY:**

**VARACES members must be aware of potential hazards to which they could be exposed.** VARACES Disaster Response Team members are required to provide their own sturdy footwear, work gloves, safety glasses and outdoor work clothing. Additional personnel protective equipment (PPE) such as hard hats and respirators is required for damage assessment work.

**VARACES leadership is responsible to conduct risk assessment with served agency officials.** Mission planning should include precautions to mitigate ordinary hazards, identify potential incidental hazards and recommend appropriate personal protective measures. At minimum field team leaders must complete a Hazard Abatement Plan Checklist daily to perform a basic risk assessment for each deployment. Volunteers must be briefed daily before their deployment and be informed of specific hazards identified, an assessment of risk exposure, and planning precautions taken to ensure a safe working

environment including provisions for job rotation, personal hygiene, housekeeping and maintenance to minimize exposures.

**Served agencies are responsible under OSHA regulations, 29 CFR Part 1910 to employ all feasible engineering and work practice controls to eliminate, reduce or mitigate hazards.** Volunteers serving state and local government agencies benefit from the same legal protection as paid staff to include safety orientation relevant to their assignments.

The agency safety program shall systematically assess hazards, inform volunteer personnel why, when and what protective measures or equipment are necessary and to train volunteer staff in the application of said protective measures or equipment and to provide adequate safety equipment and require its use, whenever doing so is indicated by the OSHA Standard.

### **Evaluating the Need for Personal Protective Equipment (PPE):**

The following list is not all-inclusive, but provides some common examples of typical VARACES operations where individuals may be exposed to hazards which can be mitigated by proper selection, training and routine use of PPE. If your SAR, CERT or VARACES unit has other good training examples to add to this list, please send them to the Virginia VARACES Deputy State Emergency Radio Officer for Training and Safety [ke4sky@att.net](mailto:ke4sky@att.net)

#### **EYE PROTECTION:**

##### **Concern:**

Airborne dust and flying particles, spotting  
Hazardous chemical irritants repairs  
Exposure to intense light or lasers  
Blood and/or body fluid splashes treatment

#### **VARACES Potential Operations of**

Damage assessment, Skywarn storm  
Battery charging, soldering, equipment  
Welding, cutting, laser operation  
First aid, emergency medical, triage,

#### **HEAD PROTECTION:**

Falling and wind blown objects spotting  
Low overhead clearances, exposed beams  
Confined spaces, foot travel in mountains Or heavily wooded terrain  
Exposed electrical wiring or components welding

Tower and antenna work, Skywarn storm  
Damage assessment  
Search and rescue operations  
Power systems and communications, arc

#### **FOOT PROTECTION:**

Penetrations by sharp, jagged objects  
Uneven, rocky, slippery, muddy ground

Damage assessment  
Search & rescue operations

Tools, equipment, rolling/falling objects  
Exposed electrical wiring or components  
Hazardous or flammable materials

Station set-up, logistics and supply  
Power systems and communications  
Fueling vehicles and generators

**HAND PROTECTION:**

Use of cutting tools

Power systems, communications, search & rescue,

Handling sharp or jagged materials

Damage assessment, logistics, material handling

Hazardous chemical irritants repairs

Battery charging, soldering, equipment

Blood and/or body fluid exposure treatment

First aid, emergency medical, triage,

Heat, abrasion exposure labor

Soldering, field cooking, rope work, manual

Exposed electrical wiring or components

Power systems and communications

**BODY PROTECTION:**

Irritating dust or chemical splashes charging

Debris clearance, battery maintenance and

Exposure to sharp or jagged surfaces operations

Damage assessment, search and rescue

**HEARING PROTECTION:**

Noise from heavy equipment

Machinery and generator noise.

**Reference:** General Industry Standards, Subpart I, Personal Protective Equipment, OSHA 3077, 1995

**Criteria for Selection of PPE and Virginia RACES Recommendations:**

**EYE PROTECTION:**

- Protect against specific hazard(s) encountered
- Comfortable to wear
- Must not restrict vision or movement
- Durable and easy to clean and disinfect
- Must not interfere with function of other required PPE
- Meets requirements of ANZI Z87.1-1989, with side shields.

**FACE SHIELDS:**

- Use in combination with goggles or safety glasses when you must protect yourself from impact hazards and chemical splashes (chain saws, power tools, risk of battery explosion)

**HEAD PROTECTION:**

- Resists penetration by objects
- Absorbs shock of a blow
- Is water resistant and slow burning
- With instructions explaining proper adjustment, replacement of suspension and head band
- Meets requirements of ANZI Z89.1-1986, Class A or B.

**FOOT PROTECTION:**

- Resists penetration by sharp objects
- Comfortable to wear
- Durable and easy to clean and disinfect
- Provide secure traction on slippery or irregular surfaces
- Provide ankle support
- Meets impact and compression protection requirements of ANZI Z41-1991
- May be designed to be electrically nonconductive to protect from electrical hazards

**HAND PROTECTION:**

- Nature of hazard(s) and work to be performed determines proper selection of gloves
- Comfortable to wear
- Protect against heat and cold
- Cut, puncture and abrasion resistant
- Either durable and easy to clean or disinfect, or is single-use disposable
- Protect against chemical exposure and blood-borne pathogens
- Durable work gloves of leather or canvas (rope work, use of hand tools)
- Chemical and liquid resistant gloves (equipment, generator and battery maintenance)
- Medical exam gloves (First aid, emergency medical, triage, treatment)
- Detailed requirements for selection and use of insulating rubber gloves for use against electrical hazards are provided in 29 CFR 1910.137 and are not included in this SOG.

**BODY PROTECTION:**

- Environmental conditions, the nature of hazard(s) and work to be performed will determine proper selection of outer protective clothing
- Comfortable to wear
- Protect against heat, cold, wind, rain, chemical splashes
- Cut, puncture and abrasion resistant, durable and easy to clean.

VARACES encourages members to provide their own N95 respirators for use in dusty environments such as damage assessment and debris clearance, even when exposures are below exposure limits, to provide an additional level of comfort and safety. If you provide your own respirator it is incumbent upon you to take certain precautions to ensure its safe use:

**Appendix D. to OSHA Regulations 29 CFR 1910.134**

## **Mandatory Information for Personnel Using Respirators When Not Required Under the Standard**

Respirators are an effective method of protection against designated hazards when properly selected and worn. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard.

1. Read and heed all instructions and warnings provided by the manufacturer on fit testing, use, maintenance, care, cleaning, and warnings regarding the limitations of the respirator.
2. Choose respirators certified for use to protect against the contaminant of concern. The National Institute for Occupational Safety and Health (NIOSH) of the U.S. Department of Health and Human Services, certify respirators. A label or certification should appear either on the respirator itself, or its packaging which tells you what the respirator is designed for and how much it will protect you.
3. Do not wear your respirator into atmospheres for which it is not designed to protect you. For instance, a respirator designed to filter nuisance dusts and particulates will not protect you against toxic chemical vapors, very small solid particles, fumes, smoke or pathogens.
4. Keep track of YOUR respirator, so that you do not mistakenly use someone else's!

## **Infection Control Awareness And Precautions for Disaster Service Workers**

**Adapted from materials by  
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### **Types of Potentially Infectious Materials (“fomites”)**

- **Body secretions / excretions**
  - Human: poor disaster sanitation conditions
  - Animal: livestock, rodents, vermin, insects
  - Decayed carcasses
- **Putrescible materials**
  - Garbage and refuse
  - Spoiled foodstuffs
- **Allergens**
  - Concentrated fungi
  - Molds
- **Stagnant surface water**
  - Mosquito harborage
- **Contaminated flood waters**
  - Sewage, water treatment system overflow
  - Petroleum and agricultural chemical contamination
- **Structural instability**
  - Trauma risk, falls, sharps potential

### **Mechanisms of Transmission**

- **Direct contact** (“portal of entry”); non-intact skin
- **Penetrating injury** (percutaneous)
- **Aerosol**
- **Vector borne**
- **Physical injury**, causing portal of entry

### **Categories of Transmissible Microorganisms**

- **Tetanus** (occurrence likely in adults who have not received a dose of tetanus toxoid booster within 10 years, esp. agricultural workers contacting manure).
- **Hepatitis A, Hepatitis B** (C less likely)
- **Enteric bacteria** (e.g. E. coli, Salmonella)
- **Vermin-mediated**
  - Cats: Toxoplasmosis
  - Rats (urine): Leptospirosis
  - Tularemia
  - Plague (rat flea)
- **Toxins** (decaying, spoiled foodstuffs)
- **Vector-borne** (Lyme, West Nile, Malaria)

### **Disaster Worker Protection**

- **Tetanus toxoid vaccine** (booster recommended every 10 years)
- **Hepatitis A/B vaccine**
- **Personnel protective equipment (PPE)**
  - Awareness training
  - Correct sizes
  - Ample supply
- **Medical screening (post-event) if symptoms**
- **You CAN protect yourself through:**
  - Cautious**
  - Awareness**
  - Notification**

## **Guidelines for Follow-up of Exposure to Blood and Body Fluids**

**In all exposure incidents the VARACES member shall IMMEDIATELY notify the incident safety officer of the served agency.** An exposure is not a simple contact. An exposure is a specific eye, mouth, other mucous membrane, non-intact skin or parenteral (piercing) contact with blood or potentially infectious material.

- 1. Clean the exposed area immediately with soap and water.** If soap and water are not available, a disinfecting cleaner such as alcohol or antiseptic scrub should be used.
- 2. Notify your field team leader and the incident safety officer immediately after exposure occurs.**
- 3. The served agency safety officer will immediately contact the agency's consulting on-duty physician regarding the circumstances of the exposure.** If needed, the physician will consult by phone with exposed personnel. Served agencies should have consulting physicians available 24 hours a day. The initial step will entail determining whether a true exposure has occurred. Appointments for testing, counseling or treatment will be made on the advice of the agency's consulting physician.
- 4. If the consulting physician feels that an exposure has occurred, they will direct the employee to either come to their office immediately or go to the nearest facility to undergo blood sampling and consultation.** CDC guidelines for post exposure prophylaxis (PEP) will be followed.
- 5. If the source patient is known, it is important to obtain information such as name, date of birth, social security number, address and phone number so that the physicians can contact them to arrange for testing. If consent is not obtained, the served agency must be notified immediately for the appropriate legal actions to be initiated under Virginia Code to obtain the source patient's blood for testing.**
- 6. If source patient is unknown, consulting physicians will follow CDC protocol for unknown source post exposure prophylaxis.**
- 7. The served agency safety officer will ensure that the proper paperwork is completed such as Exposure Incident Report and Workers' Compensation forms.**
- 8. If you have questions do not delay treatment.** Go to the nearest hospital emergency room. Record all pertinent information regarding a specific exposure, using the following form and bring with you to the Emergency Room:

## VARACES BLOOD-BORNE PATHOGENS POST-EXPOSURE REPORT

### A. INSTRUCTIONS

Do not complete this form or seek a post exposure evaluation unless an actual exposure has taken place. **An exposure is not simple contact.** An exposure is a specific eye, mouth, other mucous membrane, non-intact or parenteral (piercing) contact with blood or other potentially infectious material. If an exposure has taken place, report the incident to your served agency safety officer. Complete this form immediately following the occurrence and give a copy to the health care provider authorized by the served agency. It is important that the post exposure evaluation be initiated within 2 hours of the exposure incident.

**Health Care Provider:** This disaster service worker is in need of a blood borne pathogen post exposure evaluation. The evaluation is to be conducted in accordance with the recommendations of the United States Public Health Services and the contractual agreement between the health care provider and the state or local government jurisdiction served. The attached **Health Care Provider's Written Opinion** shall be completed within 10 days and forwarded to the address on the form in accordance with VOSH Standard 1910.1030.

### B. DISASTER SERVICE WORKER INFORMATION

Name:

SSN#:

Job Title:

Duties:

Primary Work Location:

HBV Vaccination Status:

Vaccinated  Unvaccinated

### C. EXPOSURE INFORMATION

Was exposure the result of normal duties?  Yes  No

Location of Occurrence: (Street Address, Building, Room No.)

Date:

Time:

Blood Source (Name of Person):

Route of Exposure: Eye(s):  Mouth:  Other Mucous Membrane:

Non-Intact skin: \_\_\_\_\_ Parenteral:

Describe circumstances of exposure:

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Was personal protective equipment being used?  Yes  No **GO**

If yes, describe (e.g. gloves, personal infection control clean-up kit):

Were exposure control procedures employed during incident?  Yes  No

If yes, describe:

What post exposure preventive steps were taken  
(e.g., hand washing, eyewash, etc.):

**D. EXPOSED PERSONNEL ACKNOWLEDGEMENT**

I \_\_\_\_\_ have reported this incident to the served agency safety officer. I have been provided a name of the contract physician designated by the served agency to provide post-exposure evaluations and follow-up procedures. I understand that post-exposure services are available only through health care providers authorized by

\_\_\_\_\_ <served agency and city /  
state of jurisdiction>.

Signature

Date

**E. INCIDENT SAFETY OFFICER / SAFETY MANAGER/CERTIFICATION**

As safety program manager/supervisor, I certify that as Incident Safety Officer

\_\_\_\_\_ <name,  
title, department> of the local authority having jurisdiction for this incident, I have been notified of this exposure incident; that action has been taken to ensure the forwarding of this report to the supervising legal authority of the served agency requesting VARACES volunteer support for this incident, and that the volunteer has received information concerning health care providers authorized by the served agency of jurisdiction to provide post-exposure evaluations and follow-up services.

Manager/Supervisor Signature

Date