

Message Passing and Net Control

Training for Licensed Amateurs Serving the
Amateur Radio Emergency Network for
Central Virginia Hospitals

Virginia RACES, Inc
(Radio Amateur Civil Emergency Service)

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Nets and Discipline

- ✓ **Operations Net (OPNET)** command and control functions. This is **Net Control**
- ✓ **Logistics Net (LOGNET)** traffic not needed for immediate response activities.
- ✓ **Tactical Net (TACNET)** are local “talk-around” frequencies, separate from the OPNET, used by responders for inter- and intra-team communications in the field.
- ✓ **Packet Net (PACKET)** for e-mail-like text messages covered in another segment.


Tactical Calls



Tactical call	VCU command	Southside command
Assignment	Owens	Price
Location	VCU Med Ctr Richmond	SS Reg Med Ctr Petersburg
FCC call	K4RKO	KI4BWJ

Message - ICS 213 with a twist

VA RACES – GENERAL MESSAGE FORM 213 (V1.5)



TO: _____ POSITION: _____

FROM: _____ POSITION: _____

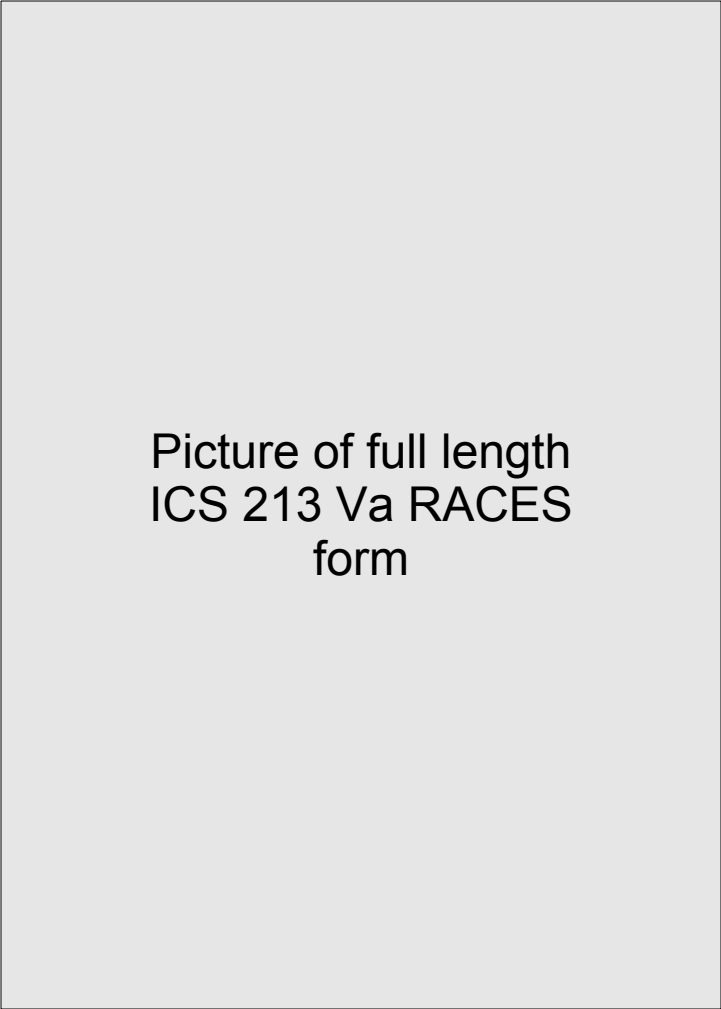
SUBJECT: _____ DATE: _____ TIME: _____

MESSAGE NUMBER: _____ GROUP COUNT: _____

					5
					10
					15
					20
					25
					30
					35
					40
					50

SIGNATURE: _____ POSITION: _____

The Twist



Picture of full length
ICS 213 Va RACES
form

- ✓ There's a word count so the receiver can say “repeater word 7”.
- ✓ It's plain text like the ICS standard not like the classic ham radiogram.

Net Control and Message Passing



Ham on radio at a
command center

- ✓ Listen for a break in traffic.
- ✓ Call like “Net control, VCU command with traffic”
- ✓ Response, “VCU command, net control, go ahead”

Telling Net Control What's Needed



Picture of net control operator
at mic

- ✓ “Net control, VCU command, I have a message for Southside command”
- ✓ “VCU command, go ahead and call Southside command”.

Establishing the Connection



Picture of another ham
at a different command center

- ✓ “Southside command, VCU command”
- ✓ “VCU command, Southside command, go ahead with your message.”



Passing the Message

- ✓ Read the message slooowwwly so the other ham can write it down.
- ✓ Speak a word, count to one, next word, count to one, etc.
- ✓ Spell medical or technical words.
- ✓ On long messages, stop frequently and ask if it has been received.

Phonetic Code and such



Standard ITU Phonetics

Letters:

A - alfa (AL-fa)	N - november (no-VEEM-ber)
B - bravo (BRAH-voh)	O - oscar (OSS-cah)
C - charlie (CHAR-lee)	P - papa (PAH-PAH)
D - delta (DELL-tah)	Q - quebec (kay-BECK)
E - echo (ECK-oh)	R - romeo (ROW-me-oh)
F - foxtrot (FOKS-trot)	S - sierra (SEE-air-rah)
G - golf (GOLF)	T - tango (TANG-go)
H - hotel (HOH-tell)	U - uniform (YOU-ni-form)
I - india (IN-dee-ah)	V - victor (VIK-tor)
J - juliet (JU-lee-ett)	W - whiskey (WISS-key)
K - kilo (KEY-loh)	X - x-ray (ECKS-ray)
L - lima (LEE-mah)	Y - yankee (YANG-key)
M - mike (MIKE)	Z - zulu (ZOO-loo)

Figures:

1 - one (WON)
2 - two (TOO)
3 - three (thair-EE)
4 - four (FOUR)
5 - five (FIFE)
6 - six (SICKS)
7 - seven (SEV-ven)
8 - eight (ATE)
9 - nine (NINE-er)
0 - zero (ZEE-ro)

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.

Check the Virginia RACES
Web site for:

“Deployment Quick Reference
- VARACES, Inc.”

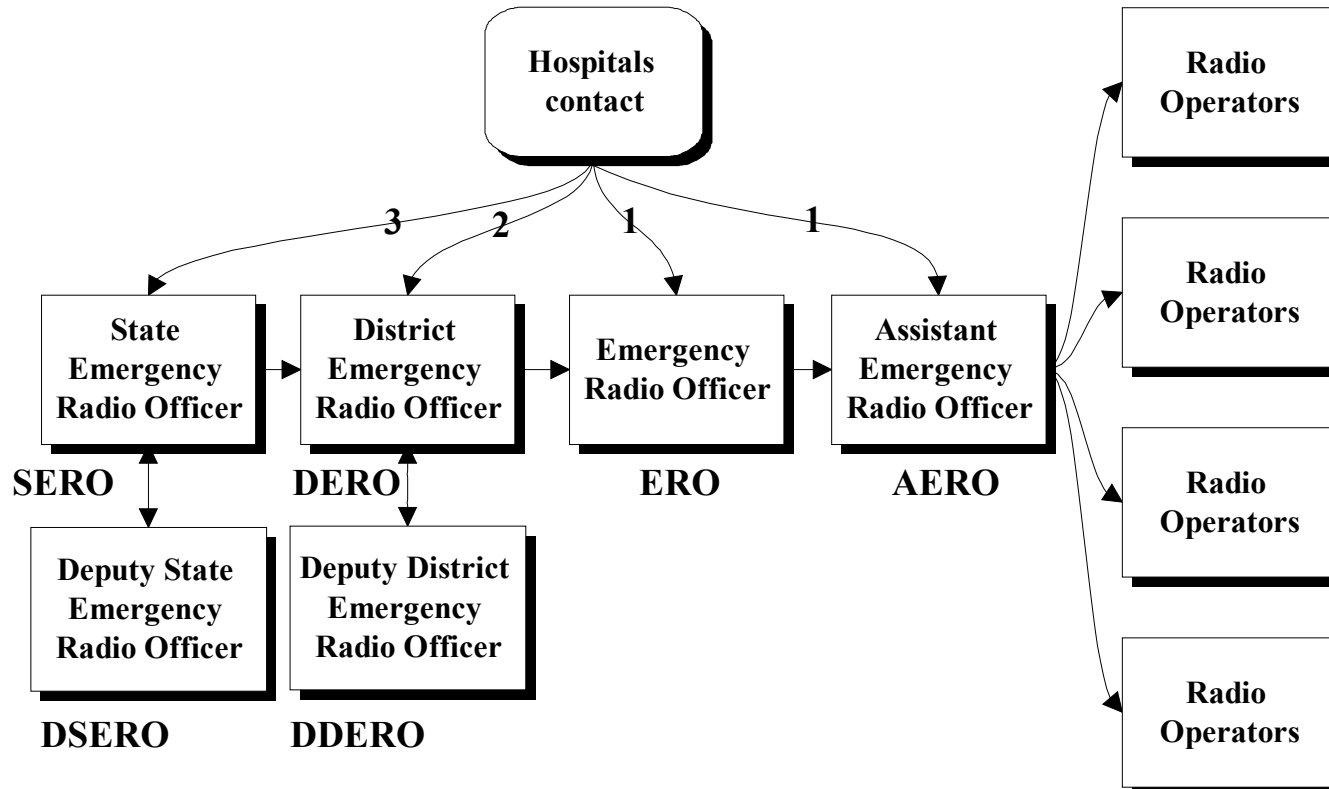
It contains the phonetic
alphabet and number
pronunciation

Phonetics



- ✓ 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”.
- ✓ Don't use OSCAR (Oh) if you mean the “figure ZERO”.

Deployment - from Hobbyists to Operators



ERO: Emergency Radio Officers



- ✓ Appointed by Virginia RACES, Inc. Board of Directors
- ✓ State and District EROs command a geographic area. Like ICS Incident Commanders.
- ✓ EROs cover a local area, usually one or more cities and/or counties. Like ICS Chiefs.
- ✓ Assistant EROs are normally assigned to an agency. Like ICS Leaders of teams.
- ✓ Radio Operators, those that get messages passed!

Callout-Deployment Levels



- ✓ **Level I: Advance Notice.** This is a heads up, we may get called out.
- ✓ **Level II: Alert and Notification.** Start monitoring the Logistics Net. Get your 24-hour pack together, charge your batteries, fuel the vehicle, medications, water, etc.
- ✓ **Level III: Deployment Information:** It's time to go.

Go Pack - Plan on 24 Hours



- ✓ Water and food for 24 hours even if you don't expect the activation to last long.
- ✓ Complete change of clothing, socks, underwear
- ✓ Personal medications for 24 hours, if needed
- ✓ Clipboard with notebook and forms pack
- ✓ Government picture ID, e.g., drivers license
- ✓ RACES ID if available
- ✓ FCC wallet-sized license if available
- ✓ Map and directions to assigned site
- ✓ A_24_hour_pack_Rev16 Apr031_W.pdf

Maybe a Tax Deduction



- ✓ Gear bought specifically for emergency communications
- ✓ Usually more than you need for the hobby
- ✓ You regularly do drills using the equipment
- ✓ But see your tax advisor
- ✓ Your employer may buy it for you with a community grant

Legal Protection



- ✓ Once registered and trained, Virginia Code and Federal law give certain benefits and protection against civil liability for reasonable acts
- ✓ If not registered, you may have no legal protection
- ✓ The Laws protecting you are:
 - Virginia State Government Volunteers Act §2.1-554
 - Virginia Emergency Management Assistance Compact §44-146
 - Federal Volunteer Protection Act of 1997 42 USC139

Shadowing



Ham with HT standing beside
hospital staffer in scrubs

- ✓ RACES Radio Operators follow staffers; *shadowing*
- ✓ One staffer asks to talk to another staffer
- ✓ Radio Operator calls Net Control, states who is needed
- ✓ Net Controls finds operator, authorizes direct contact
- ✓ Radio Operators hand radios to staffers

Building a Net Plan



Virginia RACES Communication Plan Template

Radio Communications Plan – ICS 205	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			

Example of Communications Plan - 1



Virginia RACES PERSONNEL STATUS

Revised 23May03 all previous versions are obsolete

SERVED AGENCY: Richmond Airport OFFICIAL IN CHARGE: Jim Nilo, ARFF Chief

Communication Plan - ICS 205	1. Incident Name Richmond Airport Drill-SET	2. Date / Time Prepared 20Aug03,1040 EDT	3. Operational Period Date / Time 17 Oct03, 1700 to 2330 local
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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	
VHF-2m	Alpha 3	OPNET BACKUP RPTR	145.43		NCS
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	Packet NCS
HF-75m	Echo 1	HF EVENING PRIMARY	3947 LSB	VEN/A	
HF-75m	Echo 2	HF EVENING ALT	3910 LSB	VEN/B	
HF-40m	Fnxtrnt 1	HF DAY PRIMARY	7243 I SR	WFN/A	

Example of Communications Plan - 2



NAME / CALL	TACTICAL CALL	TASK ASSIGNED	ASSIGNED NET	LOCATION?
1	Airport EOC	Shadow EOC commander	Airport	Airport EOC beneath concourse
2	Airport crash	Shadow crash site commander	Airport	South end crash site
3	Airport triage	Shadow triage-transport site commander	Airport	Building with triage-transport, south end
4	Airport family	Shadow airline & Red Cross commanders	Airport	Terminal business center conference room
5	Airport south	On-call to shadow others as required	Airport	Roving the south end crash and triage sites
6	Airport terminal	On-call to shadow others as required	Airport	Roving the terminal near the business center
7	Airport repeater	Support airport net	Airport	not established
8	MCV	Messages and shadow in command center	Tactical	MCV command center or emergency room
9	Memorial Regional	Messages and shadow in command center	Tactical	Command center or emergency room
10	ME	Messages and shadow in command center	Tactical	Medical Examiners' Biotech center command
11	NCS	Run network, keep logs, etc	Tactical	Chesterfield EOC?
12	Airport net monitor	Monitor airport net, lend assistance as needed	Tactical & Airport	Chesterfield EOC?
13	Triage packet	Digital (e-mail) traffic to hospitals	Digital ops	Building with triage-transport, south end
14	EOC packet	Digital (e-mail) traffic to hospitals	Digital ops	Airport EOC beneath concourse

Net Control Prep



Picture of log sheet

- ✓ Find your copy of the “Communication Log” (ICS 309 VaRACES version)
- ✓ Listen to the traffic, keep log
- ✓ Review logs, discuss issues and choices in filling them out.

Briefing Newly Arrived Communicators



Virginia RACES RADIO OPERATOR BRIEFING SHEET

Rev23May03 All previous versions obsolete - Record everything on this sheet that your relief operator needs to know!

INCIDENT DATE _____ MY ASSIGNMENT IS _____ LOCATION _____

MY TACTICAL CALL IS _____ SERVED AGENCY IS: _____

SERVED AGENCY STAFF ARE RECOGNIZED BY: _____

NEAREST TELEPHONE <number>: _____ - _____ - _____ IS LOCATED: _____

WATER AND FOOD ARE LOCATED: _____ TOILET IS LOCATED: _____

ACTIVE NETS ARE: (refer to RACES Quick Reference or ICS 205 Comm Plan Template)

Radio Type/Cache	Channel ID	Function	Frequency / Tone	v MY Assigned Nets	Tactical Call of NCS
		OPNET RPTR			
		LOGNET RPTR			
		ADMIN RPTR			
		LOCAL SIMPLEX			
		DIGITAL			

Op Brief -2



I MUST MAINTAIN CONTACT WITH:

TACTICAL CALL: _____ ASSIGNMENT _____ LOCATION: _____

TACTICAL CALL: _____ ASSIGNMENT _____ LOCATION: _____

TACTICAL CALL: _____ ASSIGNMENT _____ LOCATION: _____

TACTICAL CALL: _____ ASSIGNMENT _____ LOCATION: _____

TACTICAL CALL: _____ ASSIGNMENT _____ LOCATION: _____

TACTICAL CALL: _____ ASSIGNMENT _____ LOCATION: _____

Op Brief - 3



PENDING ACTIVITY IS:

Form Continues on back >

CHANGES MADE / EXPECTED:

Log all messages and events on your ICS Form 309 Communications Log, use this only as reminder to your relief operator for messages which you have sent for which you are expecting a reply:

TIME: *MSG. SENT TO:* *REPLY IS EXPECTED:* *FOR DELIVERY TO:*

Info and Forms



- ✓ Contact your ERO (Emergency Radio Officer).
- ✓ Ask for the forms pack with all the forms.
- ✓ They are in a PDF format, so all you need is the free Adobe Reader to view and print the.
- ✓ <http://www.adobe.com/>
- ✓ If you don't find what you want, send a note to <mailto:sero@varaces.org>

Summary

- ✓ You follow Net Control discipline in communications
- ✓ Ask Net Control to connect to another station, don't call directly.
- ✓ Speak slowly so the message can be written down. Word, count to one, word, count to one, etc.
- ✓ Keep a log of messages sent and received.

Summary

- ✓ Use standard phonetics to spell words that are unusual.
- ✓ For numbers say “figures” then the phonetic words for each number.
- ✓ Wait until you're called out to go to the hospital.

Credits

Developed and recorded by Virginia RACES,
Inc. in cooperation with the Central Virginia
Disaster Planning Committee.

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Cast & Crew

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