TRAFFIC SYSTEM OPERATOR
BASIC FAMILIARIZATION

Training for REACT Traffic System Operators and Users

This is a new REACT course designed to provide basic information needed by members who volunteer to serve as operators for the REACT Traffic System. The Traffic System is a formal message handling system that supports Teams, Councils, Regional Directors during operations in major emergencies and disasters as well as handing routine REACT administrative communications. As such it is a critical part of REACT's international communications infrastructure.

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I. OUR MISSION, VISION, VALUES

The mission of the REACT Traffic System is to provide rapid, highly responsive, and accurate transmission of formal messages to support training, disaster operations, and administrative requirements of REACT International.

Our vision is that the REACT Traffic System will (1) make a critical contribution to the ability of REACT International to perform its mission and (2) will become a respected emergency communications backbone that makes a significant contribution to the protection of life and property in disaster.

Our values are that we:

- Understand that disaster communications is a team effort that transcends mode, band, service, and organization and demands cooperation and coordination among all participants.

- Embrace the truth that major emergencies and disasters require that we perform as highly skilled professionals if we are to perform our mission at a standard that fulfills our vision.

- Value highly reliable performance of message handling skills, including origination, transmission, receipt, and delivery of formal messages.

- Believe that regular participation in our regular nets and in exercises and disasters is critical to development and maintenance of communications skills.

- Require that our operators will protect sensitive personal and organizational information from disclosure to unauthorized individuals before, during, and after the passage of messages through our system.

II. EXPECTATIONS

Being a Traffic System Operator carries with it the obligation to be a reliable, active, trained operator. We expect that Traffic System Operators will:

- Meet the training requirements for Type IV Message Team operators as a minimum.

- Participate in the majority of ALERTEX exercises during a calendar year and a representative sample of other organization exercises in which the System participates.
- Qualify in a message run at 15 words per minute 100% good copy or better.
- Develop proficiency in composing and transmitting messages and reports.
- Participate regularly in the REACT/Traffic System Net.
- Qualify to serve as a Net Control Station.
- Serve as a portal for message traffic to and from their region.
- Report communications activity monthly using the standard report format.
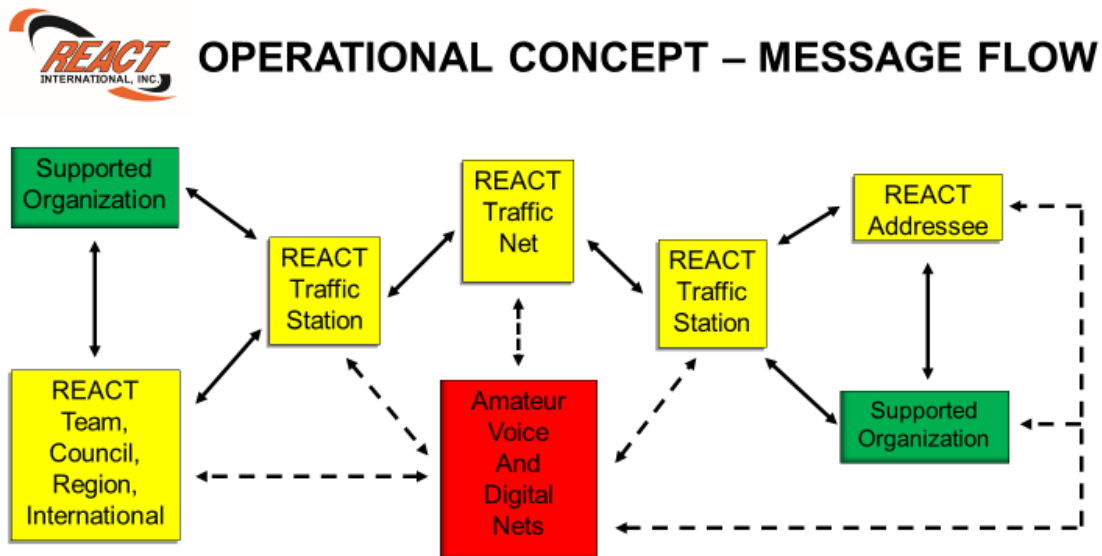
III. TRAFFIC CALL SIGN

Traffic System operators are assigned a call sign consisting of REACT Traffic + a three digit number in the format: region number + state number based an alphabetical sequence within the region + sequential number of the operator joining the Traffic System. Thus REACT Traffic 242 is a Region 2 station in Virginia (4), the second station in Virginia (the last 2). On REACT nets the call sign may be shortened to Traffic + number. The first two numbers by region and state are:

	Region 1		**Region 5**
11	Massachusetts	51	Minnesota
12	New York	52	Nebraska
13	Pennsylvania	53	North Dakota
14	Rhode Island	54	South Dakota
	Region 2	55	Wisconsin
21	Kentucky		**Region 6**
22	Maryland	61	Idaho
23	New Jersey	62	Hawaii
24	Virginia	63	Montana
25	District of Columbia		**Region 7**
	Region 3	71	Kansas
31	Florida	72	Louisiana
32	North Carolina	73	Missouri
33	Puerto Rico	74	Texas
34	South Carolina	75	Colorado
35	Tennessee		**Region 8**
	Region 4	81	Arizona
41	Indiana	82	California
42	Michigan		**Region 9**

43	Ohio	91	Canada
		92	Trinidad and Tobago
		93	Philippines
		94	Thailand

IV. SYSTEM ARCHITECTURE

The REACT Traffic System is designed to provide multiple pathways for major emergency and disaster communications using REACT communications capabilities, as well as those of Radio Relay International's international traffic nets.

Message traffic can enter the system from a supported organization or from a REACT Team, Council, Regional Director, or REACT International Headquarters and be delivered to any addressee by REACT or Radio Relay International radio traffic net, e-mail, or the Zello REACT/Traffic System Net.

Individual Traffic System stations establish a working relationship with the Teams in their state, in some cases with supported organizations, and with Radio Relay International member stations.

V. STANDARD FORMAL MESSAGES

The Traffic System operates to pass formal written messages. Written messages document key decisions, information needs, and reports in a standard format that can be transferred seamlessly from one transmission mode to another. Because their formats are standards used in amateur radio and incident command system communications, they can be transferred equally seamlessly from one organization to another. Message origination, transmission, receipt, and delivery are critical skills for Traffic System operators.

The standard message formats we use are:

Radiogram – this is an International Amateur Radio Union, American Radio Relay League, and Radio relay International standard. Its use requires an understanding of amateur radio message procedures, and the ability to express a message clearly in 25 words or less. Radiograms are the preferred message format for voice nets.

ICS Form 213 – this is the standard used in Emergency Management, in Emergency Operations Centers, and in the Incident Command System. We have developed a series of pre-formatted versions of the form for use in REACT internal communications. ICS 213 messages are more easily transmitted by digital radio or by e-mail.

VI. MESSAGE HANDLING OUTSIDE A NET ENVIRONMENT

A large part of our communications work in actual disasters happens on e-mail. Standard reports using preformatted ICS 213 General Messages or radiograms provide two significant advantages. They increase familiarity among REACT Teams with these message formats, and provide interoperability in case the messages need to be moved to Amateur Radio digital or voice traffic networks. Nets are generally initiated only when operations are expected to be continuous.

VII. TYPING

In 2012 REACT International adopted a system of typing communications teams consistent with the Federal Emergency Management Agency's resource typing program. There four levels Type 4, Type 3, Type 2, and Type 1, with different personnel, training, equipment, and capabilities required for each level.

In 2018 the focus is on qualifying Type IV teams with 2 members (Boss and Operator) in the following specialties:

- deployable Communications Teams
- Base Station Teams
- Message Teams – the Teams that operate the REACT Traffic System

Our goal as a system is to eventually have one fully qualified Type IV Message Team in each of our 9 Regions. Specific details on the training requirements for Type IV Team members are in the REACT Course Catalog. The standard Type IV qualification for Traffic System Operators is as a Message Team Operator (with growth to Message Team Boss), and requires completion of:

Federal Emergency Management Agency Courses *(note 1)*		REACT International Courses	
IS-100	Boss + Operator	Disaster Basics	Boss + Operator
IS-200	Boss + Operator	Using the Zello Voice Traffic Net	Boss + Operator
IS-201	Boss	Messages – Radiogram	Boss + Operator
IS-700	Boss + Operator	Messages – ICS Form 213	Boss + Operator
IS-800	Boss + Operator	Protecting Personal and Sensitive Information	Boss + Operator
		Introduction to Net Operations	Boss + Operator
		(1) Licensed as an Amateur Radio Technician OR one of the following REACT courses: (2) GMRS (3) FRS (4) CB	Boss + Operator (1) or (2) or (3) or (4)
		Alerting	Boss
		Basics of Drills and Exercises	Boss + Operator

Note 1: Not required for members not resident in the United States or its possessions. Where possible host country equivalents will be identified by the Training Committee.

VIII. TRAINING

Traffic Operators complete a selection of Federal Emergency Management Agency Independent Study course and REACT International courses. The four Federal Emergency Management Agency courses are a national standard used by emergency communications and other organizations as a basis for qualification to work in disasters. More information on Federal Emergency Management Agency Independent Study is available at **https://training.fema.gov/is/crslist.aspx**. There

is no charge for these courses, and they may be able to be used for college credit. If you are not a US citizen, you may obtain permission to take FEMA courses by contacting REACT International headquarters.

REACT International publishes a growing list of short courses to provide the specific information you need to perform your duties in an emergency (see the REACT course catalog or access **http://reactintl.org/training/**). These courses include a course manual that typically should take 1 to 3 hours to study.

IX. REACT/TRAFFIC SYSTEM NET

The REACT/Traffic System is the host channel on Zello for the weekly traffic net at 2115 EST or EDT on Wednesdays. This is a directed net with an emphasis on formal procedure and the passing of radiogram or ICS 213 General Message form messages. Net check-ins are done by roll call of assigned member call signs. This is not a social net and non-pertinent conversations, rag chewing, or ratchet jawing are neither appropriate nor appreciated. Net duration is typically 15-20 minutes or less for normal administrative nets.

The other two nets used in disaster operations are the REACT/Command Net (a tactical net for incident management team coordination) and the REACT/Standby Net (a staging net). When searching for these channels on Zello, make sure you type the channel name exactly as shown above, as the names follow Zello's suggested naming convention for disaster operations. A search for REACT without the slash will not yield a quick result.

X. MESSAGE RUNS

Every first Wednesday of the month following the Traffic Net we conduct a message run. The idea is taken from the code runs transmitted by the American Radio Relay League for Morse Code proficiency. In our case, it is to recognize proficiency in receiving voice messages. Depending on the month, we transmit a message at 10, 15, or 20 words per minute. We also do runs at reading speed (100 words per minute approximately), but on these you are allowed to use the recording capability of Zello to assist in copying the message. If you submit a 100% good copy of that message using the Runs page on the REACT Warning Team's website at **http://reactwarning.org/runs**, you receive a QSL sized certificate verifying your proficiency.

Currently message run participation is purely for your enjoyment and development – however, runs at specific speeds will eventually be required as part of Position Task Book completion.

XI. TRAFFIC DRILLS

Every first Wednesday of the month we conduct a Traffic Drill. The objective is to develop proficiency in writing messages and to maintain familiarity with our message formats. This 48 hour exercise usually starts with a scenario in the weekly Traffic System Update newsletter followed by a STARTEX (exercise start) message on the evening net. Based on the scenario participants are asked to complete the appropriate ICS 213 or radiogram message and submit it using the radiogram form on the right side of the website frontpage at **http://reactwarning.org** or at **http://reactwarning.org/formatted-reports** for the ICS213. If you submit a correct form you receive a QSL sized certificate verifying your proficiency.

XII. EXERCISES

The Traffic System participates in four REACT International quarterly exercises each year, the ALERTEX series. In addition, we participate in the Great Shakeout annual earthquake drill, quarterly exercises run by Radio Relay International, and other exercises as available.

XIII. ACTUAL MAJOR EMERGENCIES AND DISASTERS

The Traffic System's goal is to activate at some level for every major emergency or disaster that causes multiple REACT Teams to activate to support organizations or agencies with which they have a memorandum of agreement/understanding. Currently that averages 8+ events a year. Our function is to alert Teams, provide situation information they need, coordinate response as needed, and gather information on and report Team activities to the Board of REACT International.

XIV. MANUALS, GUIDES, ETC.

You should have the following documents:

- REACT Course Catalog
- REACT Traffic System Field Operations Guide (FOG)
- REACT Traffic System Emergency Operations Plan (a copy is in the FOG)

- REACT Standard Radio Message Formats
- Current Standard Operating Procedures
- REACT Net Log, Message Log, and Message Forms