

Reporting Station Guide -- AMRRON Field Deployment / Mobility and Communications FTX

1. Overview

This exercise will be a Field Deployment exercise utilizing both fixed "Command" stations and portable / mobile "Reporting" stations. There will be 2 or 3 "Command" stations per zone (East, Central, Mountain and Pacific). Command Stations will send traffic to the Reporting stations within their respective zones and receive abbreviated messages from those Reporting mobile / portable stations. The Reporting stations will report back to the Command stations specific requested information by HF radio from different locations within a specified time frame. The exercise will be conducted over a 6 hour period on the selected date.

2. **Exercise Goal:** AmRRON will demonstrate its ability, as a national communications network, to collect, consolidate, and transfer requested information from 48 States to a designated location via HF in both supported and austere conditions and collect reference information and data to improve future operations.

This FTX will allow AmRRON radio operators to practice rapid mobilization / deployment and demobilization of a grid independent station radio to receive and transmit information to and from a central "Command" station within specific time constraints.

This will simulate a situation where radio operators in a specific region may need to avoid undesirable detection and interdiction by elements using direction finding techniques. The FTX will also allow operators to test field deployment techniques, off-grid power, field deployed antennas and radio equipment and conveyances.

3. FTX prerequisites

Reporting Stations:

- 1 - AmRRON member
- 2 - Portable or Mobile HF radio capability (low power acceptable).
- 3 - Digital HF capability with FLdigi suite and JS8call running simultaneously.
- 4 - Transportation (A conveyance capable of moving the operator and all equipment a distance of 3 miles in under 30 minutes).
- 5 - Off grid power (preferably PV panel and battery or equivalent).
Generator power is acceptable but be advised that noise signature is a factor in avoiding detection.
- 6 - Operation from your vehicle as a mobile station is acceptable.

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4. Scenario

Organized criminal gangs have become increasingly aware of the use of coordinated radio communications to report their activities and movements across the country. In this instance they have planned multiple country wide direct action raids or other events in metropolitan areas and medium size cities to disrupt local government, businesses and traffic. In advance of the rallies, they have dispatched RDF (radio direction finding) teams to find operators using radio communications to track their activities. These RDF teams have instructions to find these operators to harrass and assault them and destroy / confiscate their equipment.

5. Exercise Implementation

The exercise will be conducted as a “rolling net”. Each successive Command and Reporting station will begin utilizing local time.

The exercise will begin with the Eastern region at 0900 and commence for 6 hours. Each successive region will follow at the same local time. This will produce some overlap of communications across regions. Command stations may take responses from any Reporting stations across any zone during the exercise time frame. Reporting stations should endeavor to contact the Command station within their zone. However, at their discretion, may contact a Command station outside their zone if they have a better path to that station.

Command stations will record and map their contacts for reporting to AmRRON national.

Command stations will operate from a fixed position for the duration of the exercise and should use at least 50 watts RF power during the exercise. Operation will be continuous for the duration of the exercise. Command stations may operate as a team if desired.

Reporting stations will operate from preselected* mobile / portable operating positions. Reporting stations may operate as a team if desired. Each operating position will be at least 3 miles from the subsequent location.

Operating locations should offer some level of concealment / separation from overt intimate observation of operations. Reporting stations should “pre-deploy” prior to the start of the exercise to the initial starting position and should be fully operational and ready to receive at the start of the exercise. Reporting stations should remain “radio silent” until they receive traffic from the Command station. After receiving traffic from the Command station, Reporting stations should send a JS8call message with specific formatting** to the Command Station(s). Reporting stations should wait for an acknowledgement from the Command station but if they are unable

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to obtain an ack, they should not delay in redeploying to the next operating station prior to the next transmission window. Do Not send repeat responses! Send only once when requested and await ack. Stealth and abbreviated transmissions are imperative for the Reporting stations to avoid detection. " Shoot and scoot".

* Preselected position - Reporting stations are encouraged to recon potential sites for mobile / portable operating positions in the weeks prior to exercise for potential suitability.

** Please see the formatting requirements section for your station designation.

6. Priority Intelligence Requirements

Location of your station reported by 6 digit Amateur Radio Maidenhead Grid Location, i.e. : EM75su

PIR#1 - Detection status - Reported as G-green / Y-yellow / R-Red
Green / G - I have not been identified by any RDF elements that I am aware of.

Yellow / Y - I have elements that are aware of my presence but have not shown interest in my radio operations and have not hindered me in any way.

Red / R - I have elements that have approached me and questioned my operation and hindered me in some way.

REPORTING STATIONS (Field Stations) WILL HAVE TWO CHANCES TO RECEIVE MESSAGE TRAFFIC.

1. On the hour (by the first sending station)
2. On the half-hour (by a second sending station)

If you have no copy or poor/unreadable copy on the first transmission, then wait. On the half hour you'll have a second chance.

After you receive a good copy of the message, you'll have one hour to get relocated and set up for the next message (on the hour, by one station, and again on the half hour by the second Command station).

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7. Exercise time, frequency and mode parameters

Traffic and reporting segments will be divided into 2 hour intervals. Each 2 hour interval will define a new traffic & reporting segment.

Time Segment / Frequency / Mode Table

Segment	time	traffic	mode	frequency	origin	destination
1	0900	announcement	CT 4/250	7.110 usb	Command	Reporting
		Msg #1 FLmsg	Op	7.110 usb	Command	Reporting
	0915	PIR reports	JS8call	7.110 usb	Reporting	Command
	0930	announcement	CT 4/250	7.110 usb	Command	Reporting
		Msg #1 FLmsg	Op	7.110 usb	Command	Reporting
	0945	PIR reports	JS8call	7.110 usb	Reporting	Command
	1000	Relocate			Reporting	
2	1100	announcement	CT 4/250	7.115 usb	Command	Reporting
		Msg #2 FLmsg	Op	7.115 usb	Command	Reporting
	1115	PIR reports	JS8call	7.115 usb	Reporting	Command
	1130	announcement	CT 4/250	7.115 usb	Command	Reporting
		Msg #2 FLmsg	Op	7.115 usb	Command	Reporting
	1145	PIR reports	JS8call	7.115 usb	Reporting	Command
	1200	Relocate			Reporting	
3	1300	announcement	CT 4/250	7.109 usb	Command	Reporting
		Msg #3 FLmsg	Op	7.109 usb	Command	Reporting
	1315	PIR reports	JS8call	7.109 usb	Reporting	Command
	1330	announcement	CT 4/250	7.109 usb	Command	Reporting
		Msg #3 FLmsg	Op	7.109 usb	Command	Reporting
	1345	PIR reports	JS8call	7.109 usb	Reporting	Command
Demob	1400	EndX all stations	CT 4/250	7.109 usb QSY 7.110	EndX	EndX

*Op - Operator discretion in mode selection. Reporting stations please use RXid.

** Offsets for FLdigi transmissions will be 1000 hz for all modes.

***Offsets for JS8call should be between 1800hz and 2300hz.

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8. Reporting Stations JS8call instructions and PIR formatting

JS8Call Mode / Macro Settings:

1. JS8Call Normal. However, if through prior testing, you have determined you can be reliably heard using faster modes, feel free to use them.
2. Enable Simultaneous Decoding of all Speeds...
(continued from page 3)
3. Disable Auto reply (Auto)
4. Disable Heartbeat Networking
5. Disable Heartbeats
6. Disable Heartbeat Acknowledgments
7. Enable Grid Locator Column (View>Show Call Activity Columns>Grid Locator)
8. Turn OFF all reporting (Settings>Reporting), and verify that the SPOT button (upper right-hand corner of the main screen) is grayed out
9. Create an "INFO" macro that contains the PIR info for this exercise
10. In your JS8call file>Settings>Call Sign groups - add the group "AMRMTX"

JS8Call Station Info Field Settings to report your PIR: enter the information requested in the PIR(s):

1. Your Six-character grid locator (depending on your comfort level), e.g. EN09ab.
2. A semicolon (;) follows the grid locator, and separates every PIR. Example EN50ab;PIR1=G;PIR2=R.

Note that NO spaces are inserted between entries in the Info field.

3. Answers to the PIRs, with Green/Yellow/Red (abbreviated G, Y, R) conditions.

conditions are dependent on the requested information but are previously identified for this exercise in section 6.

How to transmit my station info field and expect an acknowledgement

1. Select the exercise group (@AMRMTX) with a right mouse click.
2. Right mouse click and choose the option "Directed to @AMRMTX."
3. Choose the option "MSG [MESSAGE] Please store this message in your inbox"
4. Your TX pane will populate with "@AMRMTX MSG [MESSAGE]"
5. Erase the "[MESSAGE]" and type "<MYINFO>."
6. Your TX pane will look like "**@AMRMTX MSG <MYINFO>**"
7. When you are ready to transmit, hit enter. Your info field will go out to the group and any station that copies your TX will acknowledge
8. Shortcut: Just type or copy/paste the command string into your TX pane and hit enter.

Command String: **@AMRMTX MSG <MYINFO>**

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Exercise Best Practices

1. Scout and Recon potential radio sites for mobile / portable operations.
2. In the days leading up to the exercise, you should be familiarizing yourself with JS8 and your ability to be heard by other AmRRON stations. Learn how much (little) power it takes to be heard in multiple adjacent States by querying SNRs, Station Info, sending short messages and receiving acknowledgments, and such. Experiment with the various JS8 transmission speeds and how your radio propagates at higher speeds. (if you are reliably received by adjacent States and a higher speed than "Normal", feel free to use it.) By doing this you will have a good idea of you "reach" in times of emergency or exercise.
3. This is an "Observe, Listen, Transmit and Shoot and Scoot" exercise for all Reporting Stations. Reporting stations will **NOT** be querying any station for their info. Reporting stations will NOT be transmitting any Beacons, Acknowledgments, Signal Report Requests, Directed Messages or other extraneous transmissions (power saving mode). Limited transmission time and reduced RF power output is essential in remaining undetected to RDF.

Maidenhead Grid Map

If you do not have a mapping solution, you can use the Maidenhead U.S. Grid Square Map (available from http://www.icomamerica.com/en/amateur/amateurtools/2013_GridSquareMap.pdf).

Post Exercise Instructions

Reporting Stations - Police all operating stations and clean up trash prior to demobilization and return to base. Recover and store equipment. If you have comments or suggestions for improving this exercise or pertinent notes about your performance and the operation of your equipment, please drop us an "After Action Review" at johnjacob@amrron.com.

Command Stations - Save your JSmapper file for this exercise and append it with the last 2 digits of your call sign. Please send the saved JSmapper file by garim to a Tier 5 station for forwarding to AmRRON national or email it as an attachment to johnjacob@amrron.com. Title the subject line as "JSmapper AMRMTX."