**OFFICE OF EMERGENCY MANAGEMENT**

**DICKEY COUNTY NORTH DAKOTA**

**May 9th 2016**

**Regional Emergency Communications Exercise**

**LOCATION**

**This regional exercise to based out of the Whitestone Battlefield State Monument in Dickey County North Dakota USA [ 46 10’12.77 N -98 51’37.36 W ]**

**DATE**

**The exercise will be ongoing from May 27th- 29th** with the regional HF exercise component to be held 1200hrs-1700hrs on Saturday the 28th. Amateur Radio worldwide communications operations may operate the full 72 hours if we get enough operators.

**SITUATION**

In the US there are multiple, potentially supporting entities to provide communications in the event of a catastrophic emergency or disaster. For years Ham Radio HF communications has been written in as the fall back communications in every Operations and contingency plan written.

As radio operators we build, test our equipment and participate where we can waiting for the next Katrina or Sandy to come along to offer our expertise and equipment. Along with HAM radio, Civil Air Patrol, the Military, FEMA, the Red Cross ect all utilize a spectrum of these Bands and field both mobile assets and fixed bases. We seldom ever test or operate with each other until the day of an emergency. We encourage participation with these groups for this project.

My contention is, all of our focus in modern communications and purchase of assets require the internet and computers to link or even function.

Any modern threat we face has the potential (or flat will) take out the internet totally destroying computer driven communications.

**POINT IN FACT**: 9-1-1 in NY took out the trucking computers in the tower rendering the entire city helpless. Your $3k hand held could not talk across the room without a computer interface. The US forest service installed portable repeaters on buildings and passed out cashed radios to reestablish immediate communications.

We learned **nothing off** of that event and now as a nation seek if not require any way we can possibly put a computer between you and the one you need to talk to. This will certainly fail and back to basics radio knowledge and equipment will be needed to get the system working.

We need to explore and teach the basics of what we have and what will it do.

 Questions like how far can I communicate simplex with beam antennas?

HF is long distance communications- what frequencies can adequately cover a small region (ND-SD for this test) without the need of relay from Kentucky or Alabama?

Which style of antennas works best in these situations Beam, wires or Verticals etc.

**GOALS**

There are several goals we wish to achieve with this 72hr exercise. These include;

1. Full test of Dickey County Field Disaster Communications and Operations assets

 Train new personal in its set up, operations procedures and protocol

 Test and evaluate all of its components in field conditions

1. Interface Ham radio operators, responders and civilians in the use of each other’s equipment, rules and regulations. Allow, test and encourage communications across the disciplines- identify gaps and problems- test new equipment
2. Create a Full spectrum foot print to establish which frequency bands could be used for regional disaster communications. For the purpose of this exercise we are concentrating on proving communications interconnect to all ND-SD population centers using UHF/VHF Simplex – Bank 5- Ham repeaters- HF all bands- Web EOC

**PROCEDURE**

The procedure to be used for the foot printing of the HF radio spectrum will follow normal net procedures. Net control will announce a frequency using IRLP 9732 where available, WEB EOC, cellular and Echolink (if we can get it up and working). We will NET on that frequency to identify who can be heard- if relays are needed etc and document- Move up a band and do it again – same procedure.

Concurrently, we will test Bank 5 simplex to see if we can communicate via beam antennas to Jamestown-Fargo and Aberdeen from this high open ground. We will try to access both the ND and SD linked repeater systems and identify how many regional repeaters we can hit. We will also prove contact with ND and SD dispatch centers

**DOCUMENTATION**

An event sign-up sheet identifying location, cell phone number, equipment and personnel participating is to be filled out and sent to Dickey County EM [crussell@nd.gov or 701-349-3960 fax]

During the event, a full set of logs and data will be created identifying both successful and unsuccessful communications in our communications/command center per band. If communications are possible using relay, this information will also be included. Upon receipt of sign-up sheet, all documentation and data will be sent to each entity participating for your event documentation.

**IDENTIFICATION**For the HF radio foot printing the call sign AB0MW will be used for net control. For non-ham responder frequency testing (Bank 5 using SARWFM 155.160 156.7) we will use Whitestone for a call sign, all communications testing with ND State radio will be 8111 (assigned Dickey County EM callsign) and with SD state communications will be clear text per established protocol.

Military, CSST, CAP can identify clear text if you do not have an FCC call sign during this foot print exercise. It is critical to know who and where can we establish communications.

FEMA, Red Cross and Salvation Army units to my understanding all have Ham Radio operators.

For responders coming into or needing to contact the camp locally, Bank 5 interoperability frequency SARNFM 155.160 156.7 tone will be monitored. Ham radio folks 146.52 simplex will be monitored.

**PERSONNEL**

All normal FCC rules and protocols will be utilized for these operations. Personnel transmitting on Ham bands must FCC licensed for the bans they are using or utilize a control operator.

Responder frequencies will follow their normal use and protocols.

Military, CAP can identify clear text if you do not have an FCC call sign during this foot print exercise. It is critical to know who and where can we establish communications.

**EQUIPMENT**

Since the exercise is to establish “Radio foot printing,” the location is what is important. In past exercises and field day type events, testing field set ups-alternative power, etc. was a major component of the drill.

For this exercise, operations can be from where ever you would normally have your communications asset. EOCs, Mobile communications trailers would be preferred, but fixed ham radio sites like homes, ham club houses are fine also.