

From The ARES E-Letter for November 15, 2017

Major DOD Exercise Held; MARS, Amateur Radio Local Components Active

The US Department of Defense (DOD) conducted a "communications interoperability" training exercise November 4-6, once again simulating a "very bad day" scenario. Amateur Radio and MARS organizations took part. The exercise began with a simulation of a coronal mass ejection event impacting the national power grid as well as all forms of traditional communication, including landline telephone, cellphone, satellite, and Internet connectivity," Army MARS Program Manager Paul English, WD8DBY, explained.

During the exercise, a designated DOD Headquarters entity was to request county-by-county status reports for the 3,143 US counties and county equivalents, in order to gain situational awareness and to determine the extent of impact of the scenario. Army and Air Force MARS organizations were to work in conjunction with the Amateur Radio community, primarily on the 60-meter interoperability channels as well as on HF NVIS frequencies and local VHF and UHF, non-Internet linked Amateur Radio repeaters.

Madison County, Florida ARES Conducts Exercise Net

As an example of a county ARES program's participation in the DOD's Comex 17-4, the rural Madison County (Big Bend region of Florida) ARES group conducted a net on the Lee repeater (145.19 MHz) on Saturday, November 4, from 9:34 AM to 9:40 AM EDT, asking check-ins to provide real-time, current conditions when responding, to simulate collection of infrastructure status and damage reports from as many counties in the coverage area of the repeater as possible. A net was also conducted on the UHF Statewide Amateur Radio Net (*SARnet*, see below) from 9:40 AM to 10:15 AM during that same time period to gather county reports from other parts of the state as indicated. There are 67 counties in the state, and it was a goal to see how many were able to report via the system net and Amateur Radio.

After the exercise, Madison County EC Pat Lightcap, K4NRD, commented that "on our local net we had information provided on Madison, Suwannee and Columbia counties." "Then I went to the UHF SARnet and acted as net control to get responses from as many additional counties in Florida as possible," he said. Reps from 16 counties reported the status of their infrastructure; "we had not announced the net ahead of time and simply began it with only a preamble to explain the information that was desired," Lightcap said. "After calling each of the 67 counties, I ended the net at 10:15 AM and sent my report for forwarding to DOD." This was an exercise to simulate the assessment of the national infrastructure after a strong and destructive solar storm.

How SARnet Works

SARnet local UHF (70 cm) repeaters throughout the state are connected by a microwave radio network operated by the Florida Department of Transportation. The key to why SARnet works so well is that instead of using the Internet, it uses dedicated

bandwidth on a private microwave network. When an operator keys his radio, and talks into his local repeater, thanks to the statewide connectivity, he automatically talks through all network repeaters throughout the entire state. The network voice radio usage models that the FDOT is trying to investigate are short, efficient communications between users (think professional public safety radio transactions). Thus, long rag chews are not appropriate -- during long conversations, an operator is activating SARnet repeaters all over the state for an extended period of time, subjecting all to them. Click [here](#) for more information on SARnet.