



Courtney Shapiro | The Chronicle

**HAM IT UP:** Mayumi Matsunaga, 11, of Winter Springs makes her first HAM radio contact. From Central Winds Park she contacted an operator in Pennsylvania.

# ON THE AIR

## HAM radio connections made on the field and across airways.

By Jessica J. Saggio  
THE CHRONICLE

WINTER SPRINGS — As the heat sizzled Saturday afternoon, six working stations lined with antennas, microphones, computers and HAM radios scattered the perimeter of Central Winds Park in the heart of Winter Springs.

With fans blowing and sweat dripping from their brows, the men of the Lake Monroe Amateur Radio Society eagerly called out "6-alpha N4EH, 6-alpha N4EH, 6-alpha N4EH." They sat upright in their chairs, distinctively speaking their call through the airwaves hoping to make a connection with another station near or far just to prove that they could.

At 2 p.m. that day, amateur radio societies all over the United States and Canada began their annual field day. This 24-hour event was designed to test the skills of HAM radio operators and prove that these organizations have the ability to communicate no matter the circumstances. Each operator ran his station completely independent from any commercial power or connection. Generators hummed and radios hissed as the operators demonstrated that they may be the only hope if things like cell phones, Internet and TV stations fail during a crisis.

"We have no commercial power out here," said Mike Welck, a member of the LMARS. "We set up with our own antennas, radios and generators like a disaster just happened."

The field day tests operators by giving them a point for every contact that they make with other operators. The higher number of points you acquire essentially means the more reliable you are during a disaster or crisis situation.

"The real key is there is no infrastructure," said Bart Luscuskie, emergency coordinator for Seminole County. "We are proving we can communicate when nothing else will work."

The LMARS, composed of nearly 130 members, participated, using voice, Morse Code, digital communication (the HAM radio version of instant messenger), satellite tracking and slow scan TV (the sending of pictures through airwaves).

### RADIO HIGHLIGHTS

1894-1899 Marconi conducts his wireless experiments in Europe and sends a message across the English Channel. First article on building a wireless set appears.

1901 Marconi sends a wireless signal across the Atlantic.

1900-1908 Thousands of Americans experiment with wireless. Few at this time are interested in it as a hobby only.

1904 J.A. Fleming develops the 2 element (Diode) vacuum tube.

1906 Lee deForest develops the 3 element (Triode) vacuum tube. R.A. Fessenden uses the Alexanderson Alternator to make the first voice & music transmissions.

1908 A possible beginning of amateur radio. Prior to this time, interest in wireless had primarily been either as an experimenter or as an entrepreneur. By 1908, definite hobby interests exist among users.

1909 The first radio clubs are formed. Spark and the longwaves (300-6000 meters) are king.

1912 The Titanic disaster points out the need for Wireless Regulation. The Radio Act of 1912 is passed, which limits "private stations" (i.e. amateurs) to 200 meters, a "useless" frequency. The number of "private stations" drops from an estimated 10,000 to 1200.

# 24-hour access to the world

From HAM | A1

The voice operators set up using different band widths hoping to converse with fellow operators. Norman Lauterette, public information officer for the LMARS, said the voice operators can count on reaching other operators both locally and as far as the other side of the country, Canada or even across the world. Lauterette reported after the event, the 20-meter voice radio had made more than 1,000 contacts.

A field away from some of the voice operations rested a small trailer, barely big enough for four people. Inside, a constant beeping resounded as three men took arduous notes. They interpreted the sounds just as if it were another language like Spanish, French or Italian. They weren't making connections by speaking, but their message was just as loud and clear. They were talking in code, Morse Code.

"It's a language, no doubt," said Carl Zelich who manned the trailer with two other members of the LMARS. "Morse Code is a way to get through the most unfavorable of conditions."

Zelich and his crew also made more than 1,000 contacts in the 24-hour time span.

Across the field, a massive antenna spun in slow circles as operators stared intently at their computers while others made adjustments here and there. In this instance, the connections they made where out of this world — literally. The men at this station were actively trying to reach over-passing satellites. The LMARS have had much success with this as they recently visited the Arnold Palmer's Children's Hospital and let the children speak with the astronauts on board the International Space Station in May.

"When everything else is down, those will still be up there," said Lou McFadin, who sits on the Board of Directors for the Amateur Radio Satellite Corporation (AMSAT). "You can communicate across the entire United States with 24-hour access."

The LMARS successfully contacted a satellite during the field day earning them 100 points.

Just a few feet away, Les Kramer of the LMARS, sat typing away at his computer.



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**SATELLITE SOUND-OFF:** Dave Jordan of Orlando uses satellite technology to connect with other enthusiasts from around the globe. Some made contact with a nuclear sub.

He was participating in digital communication, the sort of instant messaging system for HAM radio operators.

"This is just another way to talk to people around the world," Kramer said. "Where else can you so easily make friends around the world — can't do that will cell phones."

However, on the other neck of the woods, a small pop-up camper housed members of the LMARS who were doing something very different. They were sending pictures back and forth completely independently; no Internet, no picture phones, just airwaves and HAM radio. The process called Slow Scan TV, allows operators to send pictures to others as well as receive them.

"If there's a tornado or something we can take pictures of the damage and send it out," said Joshua Saunders, president of the Seminole County Amateur Radio Emergency Services (ARES).

Finally, a trailer set up featured a GOTA radio that allowed anyone to talk through the airwaves. Visitors and operators alike spoke into the microphone chatting with other stations. GOTA, however, was not counted for points in the field day.

As the event concluded, Lauterette said this year was a tremendous success. The LMARS actually made a connection with something they never had before — a U.S. nuclear submarine. Although the submarine could not disclose its location, the group considered this communication a success.

Although the LMARS got an entertaining visit from local raccoons, they finished making hundreds of contacts in some categories and thousands of contacts in oth-

ers. Even Winter Springs Deputy Mayor Don Gilmore attended to proclaim that June 23 through 29 was officially AM Radio Week. The proclamation was also previously made by officials in Altamonte Springs, Casselberry, Longwood, Sanford and Oviedo.

But when it comes down to it, the LMARS may be part of this organization to help the community during crisis or even small events like fireworks shows, but each showed a tremendous passion for what they do.

However, for some, amateur radio was more than just a technical hobby; it was a source of a lot of fun.

"There's just so many things you can do," said Bruce Burpee, a member of the LMARS who has participated in every field day since 1981. "Some guys spend their time on the satellites, some try to bounce a signal off the moon, but I like to talk to people all over the world, that's what makes it fun."