SOUTH ORANGE AMATEUR RADIO ASSOCIATION

The PROPAGATOR

October 1999

The Monthly Newsletter of South Orange Amateur Radio Association

FCC's Riley Hollingsworth Featured at Southwest Convention

The banquet speaker at this year's ARRL Southwest Convention was the FCC's Riley Hollingsworth. In addition to the banquet address, Riley, K4ZDH, spoke and answered questions at the FCC Forum on Saturday morning. In both talks he sounded a familiar theme — that we must all work to preserve Amateur Radio.

For ten to twelve years amateur radio was ignored by the FCC. About a year ago a letter was received at the FCC raising a strong protest at this abandonment. The new leadership at the commission reacted to the letter by putting into effect a renewed interest in enforcement. It fell to Hollingsworth to be the chief enforcer.

The reaction of the audience indicated that the vast majority approved of the new activities at the FCC. Indeed Hollingsworth's talk was filled with praise for the general Ham population. "It is my honest opinion that the Amateur Radio Service is fundamentally sound, and I should hate to think what the Commercial Service would look like had they gone through ten years of neglect. Ten years of no enforcement — probably there would be mass chaos. I don't know if they would be able to make a cellular phone. But I think Amateur Radio is in excellent shape considering the fact that it has been neglected for so long."

As an example of the positive side of amateur radio, he pointed to the hams in North Carolina participating in the hurricane Floyd recovery efforts. There has not been a single report of malicious interference. "In the first few hours, if not the first few days, of an emergency communications depends on the amateur radio service".

Hollingsworth recounted some of the enforcement efforts which were underway now. He made it clear that his personal interest is to preserve and improve the Amateur Radio Service against real threats. We are familiar with the threats to our VHF and UHF bands from commercial interests, but there is a myth in amateur radio that the HF bands are not being threatened. But there is tremendous pressure from small countries for non-amateur use of the HF spectrum. At ITU meetings these countries have one vote, as does the U.S. It is an embarrassment to our representatives when these countries play back tapes of what they hear on 75 meters.

Most of the letters of complaint were about certain areas of the country and specific frequencies: "... there is no doubt in my mind that RF radiation does cause brain damage but only on certain frequencies".

"Ham radio is not about freedom of speech; it's not about the guy 2 kHz down interfering with your QSO; it's not about radio rage".

Hollingsworth closed with a challenge to the audience to help make the U. S. Amateur Radio Service the finest in the world. He further urged each listener to take one person under their arm, and recruit that person as an amateur radio operator to ensure the future of amateur radio.

New Members

A hearty welcome to SOARA's newest members.

1. J. Rolland "Rollie" Lyons, W9GOJ
2. Craig B. Smith, KF6QOE
3. John Bright KE6YGM
4. John Walker KB7LWW

Special Meeeting Location this Month

Please note the location of the October 18th meeting. Rather than holding the meeting at the Civic Center in Mission Viejo, the club will meet at the Loma Ridge EOC. You will find a map showing the location on the enclosed insert.

The drive to the Emergency Operations Center, which will serve the county in the event of a major emergency, is fairly long. Car pooling is advised and for convenience, those who wish to share rides will meet at the Civic center at 6:00 PM . Ride sharing can be arranged there. Note that this is one hour before the start of the meeting in order to get organized and drive to the EOC.

Monday, October 18

Car-pool: **6:00 PM N.P. Murray Civic Center**

Meeting: **7:00 PM Loma Ridge EOC**

Monitor 147.645 MHz

500 kHz — The Passing of an Era.

Part 4. Procedures

4A. Silent Periods (SP) The first thing an op coming on watch does is to check his clock against WWV (ITU regulations!). Certain actions on 500 have to be timed down to the second. In the log it goes:

OBTAINED WWVH TIME TICK -
CLOCK CORRECT
2500 kHz 0900Z

Because of the steady stream of signals on 500 a weak station sending a distress message might not be heard. And at one time, calls *and* traffic were passed on 500 - there was no shifting to working frequencies to pass messages.Thus silent periods were created. These consist of two three-minute intervals, in which worldwide no one transmits. Volume controls are turned up - ears are pressed to the speaker grill - one's breath is held. From minute :15 to minute :18, and again from minute :45 to minute :48. even traffic being passed on working frequencies would stop.

Woe to the station whose clock is off or who forgets the SP, for a half dozen stations might jump on him:

VLA VLA VLA DE 3FWR 3FWR K
QRT SP SP
SRI
SP
OK SRI
SP SP

(the ship 3FWR calls the shore station VLA - someone breaks in to tell him to stop transmitting; he responds with `sorry' and is still scolded, says he's sorry a second time, and is scolded again),

Now, the last 15 seconds of a Silent Period was set aside for safety and urgent preliminary transmissions ("prelims"):

4B. Broadcasts From the lowest to the highest priority, the following types of broadcasts exist:

CQ - meaning ``Hello All Ships and Stations" sent in a 3X3 format:

CQ CQ CQ DE FUM FUM FUM WX
AND TFC LIST QSW 430 AR

Here, the shore station FUM, French Navy Tahiti, makes an announcement that he'll be sending the weather and his traffic list on 430 kHz. The CQ is the most common broadcast announcement; one will go out every few minutes from someone somewhere.

TTT - this is the prosign for a safety broadcast: storm warnings, navigation hazards, or anything involving the safety of shipping:

TTT TTT TTT CQ DE ZLW ZLW ZLW
CYCLONE WARNING NR 38 QSW
475 UP

Each T is longer than usually sent to provide a very distinctive sound.

During the last 15 seconds of a silent period a half dozen TTT's would be going out. In particular, the shore stations running around the perimeter of Australia would sent the same TTT, one station following the previous station. Everyone in the Pacific wanted to be the first one out with their TTT announcement instead of waiting for a station 1000 miles away to finish, so many times they'd all go out at once. What a mess!

XXX - this prosign is indicative of an urgent broadcast where shipping and lives might be in danger (the CO might order the auto alarm sent prior to the preliminary announcement on 500):

XXX XXX XXX CQ DE NMO NMO
NMO
HURRICANE WARNING QSW 440
AR

Again, each X is drawn out in order to provide a very distinctive sound. This, as with the TTT announcements, went out during the last 15 seconds of a silent period. Those sending a TTT were supposed to give way to an XXX (remember, everyone is working duplex or full QSK - you MUST be able to hear anyone sending under you).

SOS - the darkest hour of an operator's career is when the Captain of the ship enters the radio shack, hands the op a piece of paper, and says ``Send the SOS - here's our position". International procedures dictate *every* step the operator will take:

4C. Distress Procedures:

1. Auto Alarm (AA): twelve 4-second dashes, each dash followed by a one-second pause, sent in A2 (modulated CW). ITU regulations require that every ship carry an AA decoding receiver. This decoder will only respond to AA's sent in A2.

2. Delay: The operator in distress now must wait two minutes for off duty ops, on board other ships that have received his AA, to get to their radio rooms. (If the operator's feet are getting wet then he skips this step!) A continuous silent period is now in effect on 500 kHz until the controlling station sends:

CQ CQ CQ DE (call sign of controlling station)
QUM 500 KC VA

Note that QUM = "Distress traffic has ended - resume normal traffic."

he controlling station is the distressed vessel - he can and does give control to the first responding shore station. Thus if I was the first shore station to respond, then NMO would be the controlling station.

Woe to ANY ship or shore station who transmits normal traffic during a distress:

9JBV 9JBV DE HCKO HCKO HW OM
K
QRT QRT QRT SOS 500 (sent by dozens of stations)

3. The distress broadcast. All traffic pertaining to the distress will be sent on 500. Those not in a position to assist will move to 512 kHz - the alternate calling freq. when 500 is in distress use. Here is a typical distress broadcast (sent at no more than 16 wpm — ITU regulations!):

SOS SOS SOS CQ DE 5TER 5TER
5TER BT SOS 281751Z MV PANAMA
TRADER TAKING ON WATER
ENGINE ROOM FLOODED POSN
13.73N 152.55W 13.73N 152.55W
NEED IMMEDIATE ASSISTANCE AR
MASTER SOS

This broadcast would be followed by a 10 second long dash to aid receiving stations in getting a bearing to 5TER's position.

Then would come the acknowledgments:

SOS 5TER 5TER DE NMO NMO NMO
R R R SOS

SOS 5TER DE KFS KFS KFS R R R
SOS

SOS 5TER 5TER 5TER DE JNA JNA
JNA R R R SOS

SOS 5TER 5TER 5TER DE WNPH
WNPH
WNPH R R R SOS WE ARE IN POSN

Continued from page 2.

11.81N
151.32W
CHANGING CSE TO UR POSN WILL GET ETA K

SOS WNPH DE 5TER R TU HERE IS MORE INFO . . ..

The first thing you'll notice is that *all* transmissions *must* start with SOS (ITU regulations!). What happened here is that three shore stations QSL'd the distress broadcast. ITU regulations state that you must send "R R R SOS". A nearby ship also QSL'd and is proceeding to 5TER's position.

The 500 op at NMO (me!) would be on the phone to RCC (Rescue Coordination Center) passing all info. RCC would launch aircraft and also key up the AMVER computer to check for nearby vessels. Suppose the AMVER computer shows that KPLH is steaming nearby:

SOS KPLH KPLH KPLH DE NMO NMO NMO

would be sent every 5 minutes both on 500 kHz and on all the HF frequencies.

In case no ship responded to 5TER's distress call, 5TER might give control to NMO. We would then periodically send::

<Auto Alarm>
DDD SOS SOS SOS DDD CQ DE NMO NMO NMO BT <repeat 5TER's distress msg>

where the DDD indicates that NMO is relaying a distress.

4D. Other Broadcasts: The last 15 seconds of the silent period were reserved for safety (TTT) and urgent (XXX) preliminary broadcasts. The problem was that 10 or 20 shore stations might have such a broadcast to put out and none of them knew who else would be a sending one - the result was sometimes a mess. To hear a dozen shore stations trying to send at once:

TTT TTT TTT CQ DE . . . was extremely funny!

Thus, some would start a bit earlier than H:17:45 or H:47:45. I would start hearing TTT TTT TTT CQ DE . . . sometimes as early as the last 30 seconds of an SP. Now, *every* shore station worked duplex and everyone wanted to be the first to get their broadcast out. The Japanese stations were always the most polite. I'd hear a New Zealand TTT and an Australia TTT and a Japanese TTT and the Japanese station would always stop his broadcast to yield to the others. Once the frequency was quiet then the Japanese station would start his TTT prelim again.

Oh, a prelim broadcast is a short announcement on 500 telling everyone to shift to one's working frequency for the full broadcast text:

XXX XXX XXX CQ DE VLA VLA VLA
URGENT MARINE BCST MAN
OVERBOARD QSW 472
UP

The Australian shore stations were a well-behaved unit (even though they might crush other countries trying to send prelims!). The following Aussie stations would take turns sending their prelims - as soon as one finished the next would start:

VII, VIA, VIR, VID, VIS, VIT, VIM, VIB.

The only New Zealand shore station I used to hear was: ZLZ. Other South Pacific shore stations I heard nightly were:

FJP - New Calidonia
3DP - Fiji Islands
P2M - Papua New Guinea
DUQ - Samoa
8BB - Indonesia
VJZ - New Britain
FUM - Tahiti (French Navy)
XSU - can't remember - used to hear a lot of X__ shore stations, and ones from Korea, Philippines, China, Central and South America.

North Pacific West Coast shore station that would boom in nightly included:

NMQ - USCG Radio Long Beach CA
NMC - USCG Radio San Francisco CA
NOJ - USCG Radio Alaska
KSF - San Fran commercial station
KPH - another SF commercial station
KHK - Honolulu commercial station
KOK - Southern California commercial station

To hams, 500 would have been a DX'ers dream but we took the excellent conditions for granted. Keep in mind that NMO had a *very* long longwire receiving antenna —over one mile in length.

4E. **Frequency scheme.**
Ships had a choice of using any of the following working frequencies: 425, 454, 468, 480, and 512 kHz. Shore stations only had one fixed working frequency so during an initial call on 500 a shore station would give his working frequency and the ship would choose one of the above to get as close as possible

3LF 3LF 3LF DE CKHB CKHB TR K
CKHB DE 3LF GE QSW 471 K
DE CKHB R 471/480 UP
R UP
EE
EE

Here, the ship CKHB called the shore station 3LF wanting to pass a travel report (TR). 3LF has a fixed working freq. of 471 so the ship chose to use 480. "471/480" means ``you use 471 and I'll use 480".

Why these particular choice of frequencies? Note that 454 kHz was the old 660 meter wavelength, 480 kHz = 625 meters, and of course, our star frequency 500 kHz = 600 meters.

Oh, if you haven't guessed, shore stations have 3 character callsigns, and ships have 4 character calls.

Many folks have shown their surprise that this kind of activity was occurring, on a worldwide scale, just below the broadcast band. But as a young pup I knew something was lurking just below the rock and roll band. Living near NMQ (USCG Radio Long Beach, CA) I would occasionally hear an unusual on-and-off hissing sound which would get stronger the lower I tuned:

sheeeesh shesh sheeeesh shesh sheeeesh sheeeesh shesh sheeeesh

(NMQ sending their CQ - of course my AM table top tube radio didn't have a BFO). That prompted me to both study the code and take the cover off my AM radio to move to `down' to the source of this noise. Boy did I ever ruin that radio. Thank goodness my parents bought me a Heathkit short-wave receiver - with a BFO.

— End of Part 4.
73, Jeff KH6O

The **PROPAGATOR**

South Orange Amateur Radio Association
P.O. Box 2545
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Address Service Requested

Meeting: Monday 10/18/99 at 7:00 PM
Loma Ridge EOC Tour

☞ **SOARA** meets at the Mission Viejo Community Center, 26932 Veterans Way, Mission Viejo, the third Monday of every month at 7:00 PM. Changes to the meeting time or place are announced in this newsletter and on the two-meter repeater.

☞ **License Exams**: Amateur License Exams are given prior to most SOARA meetings. Exams are from 5:30 to 7:30 PM. You must make an appointment at least a week in advance. Call Lou Parker, KA6BJO, at 951-0336. (No calls after 9:00 PM please.)

☞ **Contacting SOARA:** Questions about SOARA? Send e-mail to: info@soara.org, or leave a message at 949-249-1373: a SOARA board member will respond as soon as possible.

☞ **Web Site:** SOARA maintains a web site with current club information. The URL is: ***http://www.soara.org.***

☞ **Repeaters:** The SOARA 2-meter repeater is open to all licensed hams. The SOARA 440 repeater is for club members only.

SOARA 2m — 147.645 - (110.9)
SOARA 440 — 447.050 - (110.9)

The SOARA 220 and HROC 440 repeaters are shared by members of both clubs. Each machine is subject to the operating rules of its respective club. Call AC6XG for details.

SOARA 220 — 224.100 - (110.9)
SOARA 220 — 224.640 - (123.0)
HROC 440 — 447.175 - (131.8)

☞ **Nets:** SOARA 2 m repeater open net is held on Tuesdays at 8:00 PM following the Laguna and M.V. emergency nets.

40 meter HF net (7.235 MHz +/- for QRM), Sunday 7:30 AM

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