



# The PROPAGATOR

January, 2000

The Monthly Newsletter of South Orange Amateur Radio Association

## FCC Announced License Restructuring as Old Year Ends

Happy New Year! Amateur Radio Restructuring has finally been announced by the FCC in its Report and Order released on December 30 1999. The entire document is available as a PDF file on the ARRL web site — just follow the links from SOARA's web site. (URL is <http://www.soara.org>)

The most significant changes are in the classes of licenses which will be available and in the testing requirements. As anticipated the Morse code requirements were reduced. Only one code test will be required: 5 WPM. The new rules go into effect on April 15, 2000.

At the present time there are six classes of license. Of these, only three will be available after the new rules go into effect on April 15. The testing requirements for the classes will change with the new rules.

**Novice, Tech Plus, and Advanced** classes will not be offered, current license holders will retain license and privileges.

**Technician** class will remain; the test requirements will be reduced from the present two (Novice - 35 questions, and Tech - 30 questions) to only one 35 question written exam.

**General** class will require a Morse code exam at 5 WPM, the written exam will increase from 30 to 35 questions.

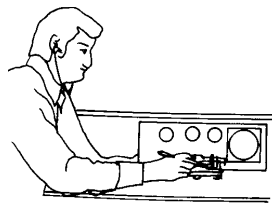
**Extra** class will require no higher Morse code proficiency than the 5 WPM. The written

exam will increase from 40 to 50 questions.

Of great interest to many is the unique opportunity to pass the required examinations before the new rules (and the new question pools) are in effect. This will appeal especially to Technician class and Advanced class hams. Although the exams may be passed before the April change, the actual upgrade in privileges must wait for the new rules to take effect.

Holders of Technician licenses first issued before March 21, 1987 will not be required to take any more exams to upgrade to General class. They will have to provide documentation in the form of a copy of the original license or verification from the FCC that the license was issued.

If you can't find the original you should write to the FCC's Wireless Telecommunications Bureau to obtain the verification. It may turn out that other forms of verification will be accepted.



A couple of interesting items: According to **§97.505(a)(9)** (*new*) an **expired** Technician class license dated before February 14, 1991 is valid for credit for Element 1 (*new*) -5 WPM code requirement!

It appears that the Tech Plus license is not completely gone.

According to **§97.301(e)** (*new*) a Technician class operator who passes the code test (Element 1) will be allowed to operate on the HF bands with the present limitations.

## New Members

A hearty welcome to SOARA's newest member:

David Kihano, Sr., KF6ZIS

SOARA's membership is about 50% Technician and Tech Plus class licenses. The remaining members are about evenly divided between General, Advanced and Extra. We can anticipate a lot of upgrade activity among SOARA members. The club will help through formal classes and by personal "Elmering" as the need is recognized.

## Upgrade Class

Malcolm Levy, KO6SY, SOARA's Education Director, has announced that a class will be offered for those who wish to take advantage of the change in rules. Both Morse code (5 WPM) and the General class theory will be addressed in the class.

Classes will be held in the Norman P. Murray Civic Center in Mission Viejo. A weekly class meeting will be devoted to presenting materials and answering questions. Much of the work will be done at home during the week. The schedule calls for classes to meet on Thursday evenings when possible.

Thursday, February 3 at 7:00 PM  
Monday, February 7 at 7:00 PM  
Thursday, February 17 at 7:00 PM  
Wednesday, February 23 at 7:00 PM  
Thursday, March 2 at 7:00 PM  
Monday, March 13 at 7:00 PM

Malcolm can be contacted at

[KO6SY@soara.org](mailto:KO6SY@soara.org)

Listen to the Tuesday evening 2 meter net for further news. An announcement will be made at the January meeting. Keep Tuned.

Anyone wishing to reserve a spot for one of the exam sessions should contact Lou Parker, KA6BJO at (949) 951-0336. Please do not call after 9:00 PM. Also it is not appropriate to make the arrangements with Lou by e-mail.

General questions may be submitted via e-mail to [info@soara.org](mailto:info@soara.org).

## 500 kHz — The Passing of an Era.

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### Part 6: My First SOS at NMO

As mentioned in an earlier part, I always sat the 12 hour 500 kHz night watch on my duty nights. I loved listening to the steady flow of calls from ships in far off waters. Even though we sat in the Central Pacific I would sometimes copy a fluttery East Coast US shore station. Throughout the night I would hear ghostly signals, just above the noise level, that would fade in and out from who knows where. Our antenna consisted of a long wire that stretched over one mile in length, and NMO sat in a very electrically quiet region. We were able to copy any ship or shore station anywhere in the Pacific.

One evening, feeling a bit drowsy (0200 local), I thought I was dreaming when I heard a long dash, a pause, another long dash, a pause, . . . Like an electric shock, adrenaline flooded through me at the speed of light - SOMEONE IS SENDING AN AUTO ALARM! My eyes shot to the clock to time the dashes: 4 seconds on, 1 second off, 4 seconds on, 1 second off - those 12 long dashes almost froze me. I yelled into the intercom to the chief, "Auto Alarm on 500", knowing at the same time alarm bells were ringing on board every ship scattered around the Pacific within radio range of the distressed ship. Recall that when a shipboard operator goes off watch, ITU rules dictate he leaves a receiver tuned to 500 kHz with a decoder attached. If that decoder hears at least four 4-second dashes each with 1-second separation, relays in the decoder will clamp shut triggering alarm bells in the radio room, in the radio officer's sleeping quarters, and up on the bridge to warn of a distress message about to be sent on 500 kHz.

Now, the two-tone auto alarm (AA) used on the voice SSB MF distress/calling frequency of 2182 kHz was common. Fishing boat crews played them when they were drunk. But AA's on 500 kHz are *never* sent except when a ship is in distress. This was the first one I'd heard since my radioman school days. I can't put into words the terror I felt while sitting out the ITU-required 2 minute wait (recall that the ITU dictates every step the distressed vessel's radio officer takes:

Auto Alarm, then the 2-minute wait [if possible] for off-duty operators on other ships, awakened by their Auto Alarm receivers, to race to their radio shacks to copy the distress). 500 kHz was now in an extended silent period. Someone started tuning up and was immediately pounced on by myself. QRT SOS was all I needed to send - dead silence. One of the Australian shore stations was sending a CQ at the same time the AA went out. He must have heard the AA through his CQ for he stopped in mid broadcast. Nothing but an occasional static crash - dead silence. Throughout my brief 500 kHz career there had never been a silence like this. Then it came:

SOS SOS CQ DE DJNK DJNK  
DJNK SOS BT MV PANAMA TRADER  
HULL CRACKED IN HEAVY SEAS  
MAJOR FLOODING 42-27N 42-27N  
178-51W 178-51W NOW ABANDONING  
SHIP SOS BT MASTER AR K

Then came the 10 second-long dash (ITU: for direction finding).

I was first - in A2 I sent:

SOS DJNK DJNK DJNK DE NMO  
NMO NMO RRR SOS.

(from now on every transmission must be preceded with the SOS prosign)

After me 500 kHz was flooded with ships and shore stations sending the ITU response: "RRR SOS:"

SOS DJNK DJNK DJNK DE NMC NMC  
NMC RRR SOS (San Francisco)  
SOS DJNK DJNK DJNK DE NOJ NOJ  
NOJ RRR SOS (Alaska)  
SOS DJNK DJNK DJNK DE NMQ NMQ  
NMQ RRR SOS (Long Beach, CA)  
SOS DJNK DJNK DJNK DE KPH KPH  
KPH RRR SOS (San Francisco)

along with KFS in California, NRV in Guam, a couple Japan shore stations; the radio operator aboard DJNK must have breathed a sigh of relief and taken some comfort knowing his message was heard by so many.

Once the RRR SOS replies ceased NMO took control. I asked the standard questions for situations such as this:

SOS DJNK DE NMO BT NEED  
FOLLOWING INFO NR OF POB (*number of persons on board*) CSE (*course*) HULL  
ES SS COLOR (*hull and superstructure colors*) NR OF BOATS (*number of lifeboats*) BOAT RADIO FREQS, EPIRB  
WX, WIND SPD ES DIR, SWELL HT ES  
DIRECTION, CURRENT (*weather and sea data*) BT SOS K

and DJNK patiently answered each.

After getting these important answers I had the uncomfortable task of asking:

SOS DJNK DE NMO BT OM PSE CL  
KEY BEFORE U LV OK? K

SOS NMO DE DJNK WILL DO OM

Every shipboard telegraph key has a switch which, when closed, will continuously cause the ship's radio to transmit. This enables rescue aircraft to home in on the distressed vessel using their direction finding equipment. I had asked the operator to close his key switch before he leaves the ship.

At the same time our AMVER computer was generating a printout of the locations of ships transiting the North Pacific. No ships were in DJNK's area! At least no AMVER reporting ships; it's possible there was a ship close to DJNK that wasn't sending us his AMVER position reports. A very slim possibility, but a chance we couldn't ignore. I was ordered by our Rescue Center to send the DDD SOS, i.e., to relay DJNK's distress message from our 10 kW transmitter. In A2 I sent:

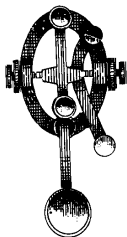
<AUTO ALARM> (12 four second dashes with a one second pauses)

then with my hand shaking, clenching the key:

DDD SOS SOS SOS DDD CQ DE NMO  
NMO NMO SOS BT <DJNK's message>  
BT ANY SHIPS IN AREA DIVERT AND  
ASSIST SIGNED US COAST GUARD  
AR DDD SOS K

— Continued on page 3 —

Dead silence reigned for minutes that seemed like hours. An awful, awful feeling of helplessness overcame me as I sat in that chair with the entire NMO crew standing in silence - all of us knowing at that very moment men were perishing in an icy ocean.



Year 2000	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
<b>General Meeting</b> 7:00 PM	24	28	20	17	15 Auction	19	17	21	18	16	20 Auction	No meeting
<b>VEC Testing</b> 5:30 PM	24	28	20	17	15	26	17	21	18	18	20	
<b>Propagator Deadline</b>	8	12	4	1	4/29	3	1	5	2	9/30	4	2
<b>Board Meeting</b>	31	3/6	27	24	22	26	24	28	25	23	27	
<b>Spring Auction</b>					15							
<b>ARRL Field Day</b>						26 - 27						
<b>SOARA picnic</b>								7				
<b>Fall Auction</b>											20	
<b>SOARA Holiday Party</b>												3

Already we had aircraft in the air heading to DJNK's position so I notified him:

SOS DJNK DJNK DE NMO NMO BT  
USCG AIRCRAFT LAUNCHED TO UR  
POSN ETA 3 HRS BT HOWS UR  
COND? K

SOS NMO DE DJNK HV TO LEAVE  
SHIP NOW TU OM FER <high pitched  
whine>

His transmitter had emitted - a scream - it actually screamed! I turned to the Chief asking "Is that...?" "Yes, the ocean water just flooded his radio room shorting out his transmitter and batteries."

I couldn't accept this - the man at that key couldn't have just perished!  
I sent:

SOS DJNK DE NMO  
<silence>  
SOS DJNK DJNK DE NMO  
<silence>

At this point the Chief put his hand on my shoulder and only said "He can't answer you - he's gone."  
Throughout the night at 15 minute intervals I continued to send the Auto Alarm and the DDD SOS to no avail. At daybreak our aircraft reported seeing only debris: bales of hay, which was the cargo of DJNK; no

lifeboats, no bodies, only debris.

Even to this day I sometimes hear, in my sleep, the scream DJNK's transmitter emitted that terrifying and horrible night. I pray the crew of that ship rest in peace.

End of Part 6.

J73, Jeff KH6O  
jeffreyh@hawaii.edu

## Looking Ahead

### January Meeting

January's guest speaker will talk on the subject of DX-ing and all it entails. It should be interesting, especially with all those potential HF operators studying for their new privileges.

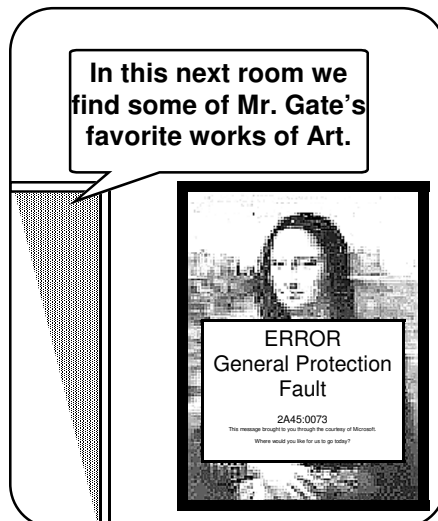
Also, at the January meeting a new radio raffle will be held. Raffles held during 1999 generated a lot of enthusiasm and SOARA will hold them more frequently this year. The club will be raffling off a new 2 meter mobile radio. No we won't be holding it for several months. It will be raffled at the January meeting.

### February Meeting

In an effort to keep you educated Malcolm, KO6SY, will present a talk and demonstration of the latest digital craze to hit the HF bands: PSK31. All you need is a computer with a sound card and an HF rig, and you can communicate almost as effectively as CW! Come to the February meeting and learn more about this exciting new mode. Malcolm may even have free software available!

### Upgrade Class

See the front page story and take advantage of this chance to upgrade.



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## Meeting: Monday 1/24/00 at 7:00 PM "Working DX Stations"

☛ **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](mailto: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 — 447.180 - (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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