Volume 27 No. 7 July 1998

Anchorage Amateur Radio Club

General MeetingFriday July10, 1998

IN THIS ISSUE:

Officers

President	Peter Bailey WL7BW
Vice President	Paul Spatzek WL7BF
Secretary	Susan Woods NL7NN
Treasurer	John Lawson NL7NC
Trustee	John Wolfe AA0NN
Activities Chairman	John Lynn KL0CY
News Letter Editor	Edythe Lynn KL0EO
Membership Chairman	Fred Erickson KL7VC
Past President	Rob Wilson AL7KK

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Bruce McCormick WL7YR
Mel Saunders AL7PB
Harvey Rookus NL7DK

One Year Board Members

Dianne Hammer NL7KN
Fred Erickson KL7VC
John Orella KL7LL
Richard O'Connor WL7CPG
Dave Filley WL7CDJ

WEB PAGES:

AARC http://kl7aa.akconnect.com
Email to kl7aa@akconnect.com
SCRC http://www.servcom.com/worcester/scrc.htm
EARS http://ww2.customcpu.com/kl7air/default.htm
KL7J http://www.alaska.net/~buchholz
Solar Terrestrial Activity http://209.130.27.95/solar/
Propagation Report Recording 566-1819
please let us know if there are other club pages or good starting points that should appear here

News Letter Submissions, Information or corrections:
Must be received 2 wks before meeting
Email: johnlynn@gci.net Facsimile: 907-338-4791
Mail: 7013 Trafford Ave. Anchorage 99504

KL7G CODE PRACTICE SCHEDULE
Schedule: 7:00am, 10:00am, 4:00pm, 7:00pm, 10:00pm
AK time, every day
Frequencies: 3575 KHz and 145.35 MHz
Sending Speeds: 22 wpm, 15 wpm, 7 wpm

Nets in Alaska:
The following nets are active in South-central Alaska:
Alaska Sniper's Net 3.920 MHz 1900 UTC daily
Alaska Bush Net 7.087 MHz 2000 UTC daily
Alaska Motley Net 3.933 Mhz 2100 UTC daily
Alaska Pacific Emergency Prepardness Net 14.292 MHz 8:30 AM M-F
QCWA net 146.97/.37 repeater Sundays 8:00 PM local
850 No Name Net 146.85/.25 repeater Sundays 8:00 PM
Son of Sideband Net 144.20 USB Mondays 9:00 PM local
Big City Simplex Net 146.520 FM Tuesdays 8:00 PM local
ARES net 147.30/.90 Mhz Thursdays at 8:00 PM local
PARKA net 147.30/.90 Mhz Thursdays at 9:00 PM local

Anchorage Area Repeaters
KL7AA systems at Flattop Mt., 2,200 ft
146.34/94 Mhz, 80 watts, autopatch, 100/141.3 Hz PL
223.34/224.94, 25 watts, no patch, no PL
444.70/449.70, 25 watts, autopatch, 100/141.3 PL
KL7ION at Mt. Gordon Lyon 4,700 ft
147.30/90 Mhz - 80 watts, no patch, no PL
KL7AA, Mt. Alyeska, 2,400 ft.
146.16/76 Mhz, 25 watts, no patch, 141.3 Hz PL
KL7CC, Anchorage Hillside, SCRC club
146.97/.37 Mhz, autopatch, 103.5 Hz PL
KL7DJE at Grubstake Peak, 4,500 ft.
147.09/.69 Mhz, 25 watts, no patch, 100 Hz PL
444.925/449.925, 10 watts, no patch, 141.3 Hz PL
KL7JFU, Palmer, MARA club
146.85/.25, autopatch, no PL
KL7AIR Elmendorf, EARS
147.27/.87 no patch, 107.2 Hz PL

This Month's Speaker

This month we will be combining the AARC and SCRC meetings and on the 10th of July at the National Guard Armory on Ft. Richardson. This meeting will include a tour of the ADES communications facilities and discussion of HAMs in disaster responses.

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EVERYONE IS WELCOME: You don't need to be a member of the club to attend the meetings or any other AARC events, although we do encourage any non-member to join our group. See THIS MONTH'S EVENTS for the location and time for the meeting.

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VHF NETS ABOUND

All of you new HAMs take note: there are lots of nets and nice folks to visit with. The Son of Sideband Net runs each Monday night at 9:00 PM local on 144.200 Mhz USB with a 6 Meter extension on 50.200 Mhz USB. On Tuesday night, the Big City Simplex Net operates on 146.520 FM at 8:00PM local. On Thursday the ARES net starts at 8:00 PM on the 147.30/.90 repeater with Amateur News line followed at 9:00 PM by the PARKA net. On Sunday there are two nets at the same time. In Anchorage, the QCWA net runs at 8:00 PM on the 146.97/.37 repeater (103.5 Hz PL) and in the valley the 850 No Name Net runs on the 146.85/.25 repeater. We are starting an informal net during the morning and evening drive times on 146.52 Simplex. All are welcome to check into what we are calling the "Stuck in Traffic Net". The object is to share traffic information, handle emergency traffic, and have a nice visit on the way to work. Net control will hand off until everyone is at work or safely home.

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NEWSLETTER ARTICLES; All articles from members and interested persons are very welcome. If you wish to submit any articles, jokes, cartoons, please have it typed or neatly handwritten. It can be submitted by computer disk, fax, or E-mail to the newsletter editor at the address listed on the cover. Submissions must be in the hands of the editor at least two weeks prior to the meeting.

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Regular HAM Gatherings:

* **Tuesdays, 11:30am to 1:00pm:** Join the gang for lunch and an eyeball QSO at the Royal Fork, Old Seward,

Saturdays, 7:30am: Here is a great way to get started on the week-end come and meet with some of the locals and have a great breakfast at Phillips Restaurant, at the corner of Arctic and International. Great Fun.

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THIS MONTH'S EVENTS

July 10: combined SCRC &AARC general meeting 7PM at the National Guard Armoury on Fort Richardson. Talk in on 146.52 Simplex.

July 1: VE Licence Exams. 6:30pm Carr-Gottstein Building, APU Campus. Bring photo ID, copy of license (if any) and any certificates of completion

July 11: VE License Exams, Hope Cottage Offices, 540 W. International in the Board Room. At 2pm. Be sure to bring photocopy of your license, photo ID, and any certificates of completed elements.

August 7: AARC general meeting at 7PM Carr-Gottstein Building APU Campus. Talk in on 146.94 repeater

August 14: SCRC general meeting at 7PM RM 220, Business Ed. Bldg., UAA campus. Talk in on 147.57 simplex.

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FOR SALE

ICOM 2A 2-meter HT with mic. Dest battery charger wall adapter, battery packs. Please contact Ed Maher, NL7VP @ 243-4348 and leave message.

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May AARC Board Meeting Minutes
by *Susan Woods, NL7NN*

The Anchorage Amateur Radio Club Inc. held its monthly Board Meeting on the 13th of May, in room 150 at Grant Hall on the APU Campus. Those present were the following: Peter Bailey, WL7BW, President; Susan Woods, NL7NN, Secretary; the following Three year Board Members: Bruce McCormick, WL7YR; Harvey Rookus, NL7DK; with the following One year Board Members: Richard O'Connor, WL7CPG, John Orella, KL7LT, Corny Eastman, KL0FK, Fred Erickson, KL7VC, Diane Hammer, NL7KN and David

Filley, WL7CDJ. Also present were Kris O'Connor, WL7ZT, Terry A Pruston, WL7TY and Daryl Douthat, WL7EK.

April Board Meetings Minutes were read and approved by the Board.

Terry Pruston, WL7TY, President of the Nenana Amateur Radio and Daryl Douthat, WL7EK, a Nenana ARC Member presented a letter to the Board requesting $4,000.00 for the following :

1) For concrete 24 cubic yard's @ $95.00 per yd.
2) Transport of FBX @ $275.00 per truck load (with a min. of 3 truckloads).
3) Rebar to reinforce the concrete @ $66.00
4) Materials to construct the base four foot section of the tower @ $100.00
5) Boom truck rental (2 days rental @ $300 or 1 day @ $600).

The tower will be free standing 4' on a side and is 60 feet tall.

The heavy duty tower used to reside at the Russian Jack Branch of NBA. The bulk of the work will be done by Nenana ARC Members. They number 15. This tower will provide the Nenana Repeater good coverage into Fairbanks. It is a vital communication link for several families living in the area. The frequency is 147.06+ 103.5 PL tone WL7DK.

Motion to take it forward was approved unanimously.

The Considered Response Team-concerning antenna towers and the MOA's revision of Title 21 is looking to combine the efforts of all three local clubs in our plan of attract. The HALO Meeting was well attended on the 8th of May at the Castle on O'Malley. It was first encounter with Sheilla Sellkreg.

AARC received a $4,000.00 disbursement from Boniface Bingo for April 1998.

Fred Erickson, KL7VC, our membership chairman would like a detailed explanation of our Life Membership account, sometime in the near future.

The $5,000.00 for the transportable repeater package was approved at the May General Meeting. The Board said "Get it Done".

The request received via e-mail from HWARS (Hawaii West AR Society) was tabled until the June Board Meeting for the gathering of more information.

Dave Fuilley, WL7CDJ, had the help of seven people on May 9th for the Potter's Marsh Cleanup. "They were a small crew with BIG hearts," Dave said. He requested that he be reimbursed for his out of pocket expenses of $53.00. Motion to approve was made by Bruce McCormick, WL7YR, with a second by Richard O'Connor, WL7PCG. Passed by the Board unanimously.

There was a lengthy discussion of how to better improve next years Mass Casualty Disaster Drill.

The task of researching for a new printer for our newsletter was given to Richard O'Connor, WL7CPG. He will give his recommendations to the Board at the June meeting.

The meeting was adjourned at 9:08pm

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June AARC Board Meeting Minutes
by Susan Woods, NL7NN

The Anchorage Amateur Radio Club Inc. held its monthly Board Meeting on the 10th of June in room 150 at Grant Hall on the APU Campus. The meeting was called to order at 7:10pm. Those present were the following: Peter Bailey, WL7BW, President; Susan Woods, NL7NN, Secretary; John Lawson, NL7NC, Treasurer; Past President Rob Wilson, AL7KK; the following Three year Board Members: Harvey Rookus, NL7DK; and Mel Saunders, AL7PB; with the following One year Board Members: Fred Erickson, KL7VC, Dianne Hammer, NL7KN and John Orella, KL7LL.

The minutes of the May Board Meeting were read and approved with the following correction. The Anchorage Amateur Radio Club received a $6,000.00 disbursement from Boniface Bingo for April. The motion to approved the corrected minutes was made by John Lawson, NL7NC with a second by Mel Saunders, AL7PB.

The gaming account as of June 10, 1998 hold a total of $42,700.00. AARC received no disbursement from Boniface Bingo for the month of May.

The Board was of the opinion that we should delay the disbursement of excess gaming funds until after AARC's Hamfest in September.

The State of Alaska's Charitable Gaming Laws Prohibit the AARC from giving excess gaming proceeds to any other than Alaska non profit organizations.

The AARC's Life Membership account was set up in 1980 as a "Permanent Fund" type of account. The interest can be spent but the principle cannot. We have never used it because we have a charitable gaming license that makes a good profit. Fred Erickson, KL7VC, our Membership Chairman, has deposited two life memberships since 1993. Our Life Membership account has gained $6,000.00 since 1993. As of June 10, 1998 it totals $25,133.00.

The two Scamp trailers which belong to the Civil Air Patrol and are in AARC's possession are valued new at $5,000.00 each. There was some discussion by the Board as to their replacement value if they were lost, stolen, or destroyed while in AARC's possession.

The Board approved a request for $350.00 so that food can be provided for the Field Day. Motion for approval was made by Mel Saunders, AL7PB with a second by John Orella, KL7LL. Approved with out opposition.

The Planning and Zoning Commission Meeting was well attended on June 8th. About 30 spoke against the ordnance. Action was postponed (it may or may not be considered again). Our best mode of attack now is to inform the Assembly Members of our situation.

The AARC and SCRC will have a joint Meeting on the 10th of July at the National Guard Armory on Ft. Richardson. This

meeting will include a tour of the ADES facilities by Jim Harpring.

The Meeting adjourned at 8:21pm.

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RSGB on Morse
Newsline

The Radio Society of Great Britain says that it no longer supports mandatory Morse code testing for access to the amateur bands below 30 Mhz. The national society will lobby the International Amateur Radio Union to try to get a rules change passed at the 2001 World Radio Conference to support the abandonment of the international statutory requirement for Morse testing.

The change in policy by the RSGB comes only eighteen months after its December 1996 announcement of the results of a survey on The Future of Amateur Radio in that nation. At that time, thirty percent of the society's members responded. Two-thirds said that Morse code should remain as an international licensing requirement.

The RSGB will propose to the nation's Radiocommunications Agency that a new class of Ham license be introduced in the United Kingdom, one that will give all amateurs access to the HF bands below 30 Mhz by passing a very simple slow speed CW test, possibly as slow as five words per minute.

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League calls Members to ACTION on 70cm petition
ARRL

The ARRL says the recent Land Mobile Communications Council petition seeking access to 70 cm is "incompatible with the continued amateur use of the band" and urges members to comment in opposition - not only to the FCC but to the LMCC's members. The LMCC has petitioned the FCC for immediate reallocation of 420 to 430 Mhz and 440 to 450 Mhz from the federal government to the Private Mobile Radio Service. Amateur Radio enjoys the use of 70 cm on a secondary basis to government radio location (military radar). The LMCC has proposed to share the two subbands with Amateur Radio, but has not said how sharing would be possible. The LMCC also seeks additional UHF reallocations in the intermediate and long term.

For those planning to file comments, specific information and recommendations plus a copy of the LMCC petition and a list of LMCC members are available on the ARRLWeb page at Error!Bookmark not defined...

Commentaries should explain how the loss of access to 420 to 430 and 440 to 450 Mhz would affect them personally and how it would affect the ability of hams to provide needed public service. "Even if you do not use these segments yourself, it is likely that loss of access would result in more crowding and interference in the part of the band, or in another band, that you do use," said ARRL Executive Vice President David Sumner, K1ZZ. "Don't over-look the fact that if you use linked voice or packet systems, it is quite likely that some of the links you rely on are in either or both of these segments."

Additional, amateurs involved in public service communication can ask the government and non-government agencies they assist for written statements of support. Hams also should urge Amateur Radio organizations, especially those with interests in the 420 to 450 Mhz band, to comment as well.

The LMCC, a nonprofit association, includes several well-known organizations such as the American automobile Association, the American Petroleum Institute, the International Association of Fire Chiefs, and the Association of Public Safety Communications Officials-International (APCO), a frequent Amateur Radio supporter. The League suggests that ARRL members who also belong to one of the LMCC member organizations consider writing to inform the organization that the LMCC is acting contrary to your interests and requesting them to disavow the LMCC petition insofar as it affects Amateur Radio.

Sunmer says ARRL members should **not** complain to members of Congress nor **write angry letters** to the FCC. "The LMCC petition is a private-sector initiative, ***not*** a government proposal," Sumner said. "By law, the FCC has to put the petition on public notice and invite comment. That's all the FCC has done with it." Sumner says that criticizing the FCC at this stage would be "inappropriate and counterproductive."

Sumner reminds members that nothing is going happen overnight with the LMCC petition, and there will be at least one more opportunity for public comment." "Before the FCC can take the next step to reallocate this spectrum it must get the federal government to agree," he explained, because the government is the primary occupant. Then, the FCC would have to issue a Notice of Proposed Rule Making and solicit public comments on its proposal.

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-1.2 GHz THREAT
FCC, ARRL

Amateur Radio could lose part of an important UHF band if the second civilian frequency for the global positioning system frequency is assigned an allocation at 1.2 Ghz.

The Amateur Radio 23 cm band runs from 1240 to 1300 Mhz. A decision on whether the new, second frequency will be 1205 or 1250 Mhz is expected to be made in August. An allocation at 1250 Mhz could mean the end of Hams in the band from 1240 to 1260 Mhz.

In February 1997, the Department of Transportation and the Department of Defense announced an agreement assuring civilian GPS users of a second frequency. This frequency is considered essential for critical civilian GPS uses.

According to a Department of Defense news release, the White House Commission on Aviation Safety and Security has called for the establishment of a second civil frequency as part of a broader program to maintain US leadership in aviation and satellite technology. This leadership position could come at a high price for Amateur Radio.

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Five-year-old passes 5wpm test
Hudson Division Loop

Saturday, April 25th, Ashley Kopacki, age 5, passed her 5 word per minute Morse code test at an ARRL VEC administered examination session hosted by the County Line Amateur Radio Club.

Ashley is a kindergarten student in Mount Olive, New Jersey. She frequently attends radio club meetings with her father, Dave Kopacki, KF2EW. She helps with the sign-in sheets, and is Official Cookie Taster. Ashley now has a year to study for the Novice written exam.

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Verbal Morse
Newsline

The Morse code has a new supporters but not the kind you might expect. Radio operators, believed to be members of the Southern Sudan Peoples Liberation Army, have been heard on the 40-meter band. The are sending messages by vocalizing the Morse code in both English and Sudanese local languages. According to VK2EA, the pirate operators are actually speaking each dot and dash. Presumably they think it's giving them a measure of military security.

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Land Mobil Communications Council strikes at Amateur Radio
Rick McCusker, KO6DJ

The Land Mobile Communications Council has filed a petition demanding reallocation of 420-430 and 440-450 Mhz. The LMCC wants that portion of the "440" band reassigned with Private Mobile Radio Service as primary user, and Amateur Radio as secondary user on a "not-to-interfere" basis. Comments were due, on paper, by June 1, 1998.

The LMCC is a consortium of several corporations and organizations. The LMCC is made up of:

American Association of State Highway and Transportation Officials (AASHTO)
American Automobile Association (AAA)
American Mobile Telecommunications Association (AMTA
American Petroleum Institute (API)
American Trucking Associations Inc. (ATA)
Association of American Railroads (AAR)
Association of Public Safety Communications Officials-International, Inc. (APCO)
Cellular Telecommunications Industry Association (CTIA)
Central Station Alarm Association (CSAA)
Forest Industries Telecommunications (FIT)
Forestry-Conservation Communications Association (FCAA)
Industrial Telecommunications Association (ICA)
Intelligent Transportation Society of America (ITSA)
International Association of Fire Chiefs (IAFC)
International Association of Fire and Wildlife Agencies (IAFWA)
International Municipal Signal Association (IMSA)
International Taxicab and Livery Association (ITLA)
Manufacturers Radio Frequency Advisory Committee (MRFAC)
National Association of State Foresters (NASF)
Personal Communications Industry Association (PCIA)
Telecommunications Industry Association (ITA)
UTC, The Telecommunications Association (UTC)

What does this mean for us?

The FCC cannot reallocate 430-440 Mhz because it's an international allocation for Amateur Radio. They can reallocate these two portions, especially when you realize the potential for monetary gains by he government for license fees they can charge licensees.

Were you one of the smart Hams who sent a letter to your representative supporting HR3572? That is the bill designed to protect Amateur Radio spectrum from grabs just like this.

The interesting part of this story, is that the petition was filed on May 7, with comments due by June 1. Just a little over three weeks to get our comments on file. With that short notice, not one of the Amateur Radio magazines or newsletters had time to get the word out to the readers. It all depended on word of mouth to spread the word. With any kind of luck, Hams got the word and sent letters in by the comment deadline.

The ARRL is gearing up for this fight. The ARRL letter of May 8 was the source of the information on this issue, with special updates continuing to appear on the ARRL homepage. The staff at Worldradio has offered its support to ARRL in this matter, and will be providing ARRL with any information received on this threat. We urge all our readers who are not members of ARRL to consider becoming a

member. They need your support and are the only major organization with the clout to make a difference.

It doesn't look good

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ARRL asks FCC to support voluntary band plans
Worldradio

Following up on action taken at the January ARRL Board of Directors' meeting, the League has formally asked the FCC to equate observance of voluntary band plans "good amateur practice." In a request for a Declaratory ruling filed April 3, the League asks the FCC to affirm that amateur operation that conflicts with established voluntary band plans and causes interference or adversely affects those operating in accordance with applicable band plans would violate FCC rules. Specifically, the League wants the Commission to confirm that Hams should be familiar with, and should abide by, voluntary band plans applicable to the bands they operate and to state that those who don't operate in harmony with those plans are not operating "in accord with good amateur practice." A complete copy of the League's petition may be found on the ARRL Web at www.arrl.org/announce/declreq.pdf.

The FCC has assigned rule making number RM-9259 to the request. The action is considered a bit unusual since RM numbers generally are assigned only to petitions for rule making, not to requests for a declaratory judgment. A complete copy of the League's petition may be found on the website listed above.

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Privacy bill passes House, hits Senate
Worldradio

In a resounding 414 to 1 floor vote HR 2369, the Wireless Privacy Enhancement Act of 1998, passed the US House of Representatives in March and now awaits action in the Senate. The house-passed bill includes a report that specifically resolves concerns that the ARRL raised with the staff of the House Telecommunications Subcommittee.

When first introduced, the League feared it unintentionally could have outlawed all out-of-band operations including MARS and CAP, as well as most scanning and short wave listening. These fears - also voiced by scanner enthusiasts, volunteer fire departments and others - were addressed by the bill's sponsor, Louisiana Republican Billy Tauzin, when the bill was amended. However, the League was concerned that certain provisions in the bill could be interpreted as forbidding the modification of linear amplifiers for 10 and 12 Meters as well as the modification of transceivers for MARS and CAP use.

In the days before the bill went to the floor, subcommittee staff worded with the League and with others involved parties to craft a committee report that would put our fears to rest. Committee reports are the official statement of "Congressional intent" on important legislation. The House voted on the bill and the report as a single package.

The report made it clear that the Committee did not intend the legislation to prohibit Hams from modifying linear amplifiers after purchase, as permitted by FCC rules, for use on 12 or 10 Meters, or from building or modifying one amplifier per year to enable this capacity.

The report also said that the Committee did not intend that the proposed law be interpreted to discourage manufacturers from providing MARS and CAP modification information. The report also clarified other concerns raised by scanner enthusiasts, short wave listeners and manufacturers. The report's full text can be found at ftp://ftp.loc.gov/pub/thomas/cp105hr425.txt.

During the house debate on the bill, Tauzin and Florida Republican Cliff Stearns took time to praise the volunteer work of Amateur Radio operators in the wake of natural disasters.

There is no word on what the Senate plans to do about this legislation.

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FCC grants Little LEO licenses
Worldradio

The FCC's International Bureau has granted - subject to certain specified conditions - authorizations to fc companies to operate non-voice, non-geostationary mobile-satellite systems in low Earth orbit (NVNG MSS or Little Leo systems). None of the operating frequencies are within amateur bands. Little LEO systems will offer data communications services, including two-way data messaging, vehicle tracking and remote

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South Africa CEPT
Jack Kelleher, W4ZC

South African amateurs will soon be able to operate in CEPT signatory countries without the need of acquiring a guest license. This, according to SATRA, the South African Telecommunications Regulatory Authority which says that it has received Confirmation from the European Radio Communication Office, that South Africa has been accepted as a signatory to and participant in the CEPT common amateur radio license. The agreement follows several years of negotiation with both the South African Authorities and the CEPT by the South Africa Radio League, with the assistance of the Iaru Common License Group.

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SARL beams Amateur Radio into classroom
SARL/SAART

The South African Radio League is taking science and technology into the classrooms of southern Africa with a weekly half-hour shortwave bradcast, "Talking Science with Amateur Radio." The program is broadcast to schools Tuesday morning (7205 kHz) with repeaters on Wednesdays, Thursdays, and Fridays. The program is a joint venture of the SARL and the South African Amateur Radio Development Trust and is sponsored by Sentech, the common carrier for broadcasting in South Avrica. The program will cover a variety of scientific and technological subjects. Amateur Radio and shortwave listening as educational aids in the classroom also will be featured.

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Sunspots and Solar Flares
Leo Witkowski, K1QPJ

Most Hams are communicators, I think. They use CW or phone to send messages to one another. Others use RTTY, Slow Scan TV, Packet radio and Satellites. Then there are those who take pleasure, not in communicating, but in building and experimenting with radio gear, circuits, and antennas. I guess there are other activities pursued that are a bit out of the mainstream of Amateur Radio. As with many activities we undertake, over time, our interest in it waxes and wanes. My story of another activity, a facet that is much related to Amateur Radio follows.

Early 1989, my 3.5 inch Questar telescope sat in the corner of our den, unused because I disliked the bone-chilling New England nights, when I wanted to be observing the planets and other night sky objects, until I read in the *Sky & Telescope* magazine of an invitation to join a group of sunspot observers with the American Association of Variable Star Observers (AAVSO). I signed on, thinking I could now use my telescope for some meaningful daytime astronomy--the temperatures would be more to my liking and the object of my observation would not be hard to find.

After studying the AAVSO material on sunspots and several weeks of practice, I began a daily task each morning of taking the telescope out and looking at the sun and recording the number of sunspot groups as well as the total number of spots. At the end of the month, I would send to the chairman of the Solar Division a report of my daily counts. The report, combined with about 60 others, is then sent to the National Geophysical Data Center and other institutions that request them. With time, it becomes clear to see the connection between the changing sunspot count and changes in HF propagation.

Toward the end of 1989, I signed on to do monitoring for solar flares for the AAVSO. Solar flares are detected indirectly by monitoring the signal level of a VLF CW station (I monitor NAA on 24.0 kHz, Cutler Maine). They occur in and around large sunspots, which are highly disturbed magnetic areas on the surface of the sun. Flares release in a short period of time a large amount of UV light and X-rays. About eight minutes after the occurrence of a flare, the increased radiation reaches the Earth's ionosphere causing an increase in ionization, especially in the "D" layer. This in turn causes an increase in absorption of HF and lower frequency radio signals lasting from a few minutes to several hours. As the ionized gases recombine, the signal levels return to normal.

The first Sudden Ionospheric Disturbance (SID) Receiver I built was a three-transistor, two-inductor type designed by Arthur Stokes, N8BN. The antenna is a tuned loop type, made of 75 turns of #26 copper wire. The output of the recetiver is fed to a Rustrak milliamp strip chart recorder. Later, a second SID receiver, a gyrator-tuned type designed by N8BN, was built because of its sharper selectivity. Still later, an asymmetric integrator circuit designed by Casper Hossfield, ex-W2DNX, and yours truly, was places between the SID receiver and the chart recorder. This helped to eliminate the scatter in the trace of the recorder caused by electrical stroms, producing a sharper trace.

The SID receiver and recorder run continuously. Each morning, with the help of my wife, Lorraine, WA1EDR, I analyze the previous day's chart and record my finding. At the end of the month, I e-mail my findings to a SID-receive person, KB9RFZ, at the University of Indiana. He, in turn, submits a combined report from all SID stations (only 23 worldwide--19 in the U.S., 1 in UK, 1 in Spain, 1 in South Africa, and 1 in Switzerland) to the National Geophysical Data Center in Colorado. This data is compared to the data from the X-ray satellites and helps to confirm the coourrence of the solar flare events.

On 18 September my station, with two other stations, recorded three very small SIDs. The flares that caused these small SIDs were rated C-1.5 and C-1.6 by the National Geophysical Data Center, near the limit of sensitivity of X-ray satellites. This indicates that the sensitivity of the SID receivers is about equal to that of X-ray satellites. The interesting part is that we each have spent about $200 to build our SID stations, which can detect solar flare events to about the same degree as the National Geophysical Data Center, with its X-ray satellites costing many millions of dollars.

Solar flare events and other solar activities are of interest and concern to many in the electrical distribution, communications, air transportation, and other services because of the impact these events have on the ionosphere and the Earth's magnetic field.

Sunspot and solar flare reporting is a very interesting and rewarding activity, one that will allow you to learn some of the physics behind propogation and radio in general. If you want to do something for science, join our group. For technical details, write to Arthur Stokes, P.O. Box 398, Hudson, OH 44236. His e-mail address is astokes@gwis.com.

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VA antenna victory
Worldradio

A follow-up on last month's story about the group of Virginia Amateurs who decided to fight the established planned community lobbies for the right to have antennas - many said it could not be done, but Virginia amateurs did it anyway. As a result, Hams in that state may soon have the most Amateur Radio friendly antenna laws in the nation. The Virginia state legislature passed SB-480 at 12:15 am on Sunday morning March 15. Governor Jim Gilmore signed the measure into law in mid-April.

SB-480 gives Virginia Hams what amounts to an inalienable right to erect an antenna system. The measure directs that all areas of the state be covered under PRB-1-like preemption language directing all communities to make reasonable accommodation for Ham Radio towers and antennas.

But it doesn't stop there. Areas of Virginia with population densities greater than 120 persons per square mile based on the 1990 Census cannot relate antenna structures to less than seventy-five feet. Areas under 120 persons per square mile cannot relate antenna structures to less than two hundred feet. And no area can regulate the number of support structures, meaning that Hams can put up as many antennas as hey want.

As to restrictions? There is only one that is of any consequence. It says that reasonable and customary engineering standards for antenna erection must be followed in all locations. That in itself is also a positive step because it makes sound engineering a state mandate and takes away the benefit of localities having final say on engineering and structure erection.

In getting the measure passed, Virginia Amateurs defeated two of the most highly influential anti-antenna and pro local government lobbies in the state. The measure faced fierce opposition from the Virginia Municipal League and the Virginia Association of Counties. When it was introduced January 26, many observers gave the bill little chance of success. Now, its proponents are hoping it will serve as a model for other states.

Bob Ham, KK41Y, of Venton, VA, was the prime mover behind the bill. He worked with state Sen. John Edwards of Roanoke to get the measure introduced in the General Assembly and signed by the governor.

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Ham Radio to be Aboard When John Glenn Returns to Space
Rick Lindquist, N1RL

A ham radio package will be aboard the shuttle flight that carries US Senator and astronaut John Glenn into space this fall. Word from NASA is that the Shuttle Amateur Radio EXperiment or SAREX payload will be carried on shuttle mission STS-95 when it flies I October. The shuttle will carry the 77-year-old space pioneer into orbit for the first time since the early 1960s, when he became the first US astronaut to orbit the Earth.

Two hams--US astronaut Scott Parazynski, KC5RSY, and European Space Agency astronaut Pedro Duque, KC5RGG, of Spain-- will be among an international crew aboard STS-95. The launch date for the only other SAREX mission scheduled for 1998--STS-93--has slipped from August to December. Glenn already has begun his astronaut training, but it's not yet known if he plans to get his ham ticket before he returns to space.

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No I-Phone fees
Worldradio

Finally, if you use Internet Phone for repeater linking, we have some good news for you. For the time being, making calls over the Internet will remain free of tariffs other than regular Internet Service Providers fees.

According to news stories, in a late March report to Congress the FCC says it is not ready to conclude that the long-distance calls carried over the Internet or other data networks should be regulated as a telecommunications service. That could change, says the FCC, but not anytime soon.

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Congressional Probe of FCC Heats Up
Steve Mansfield, N1MZA

Beginning last March and continuing through June, the FCC will be under the microscope on Capitol Hill as both the House and Senate hold a series of hearings to investigate the FCC's performance. The House Commerce Committee has already explored cellular privacy, satellite competition, as well as Internet pornography. The committee will shortly be turning its attention to computer security and Internet encryption issues. The Senate Commerce Committee has been focusing more on common-carrier issues, with hearings scheduled on cable television, 911 access by cellular providers, 800 numbers, telephone rates and similar issues. The Senate will launch a series of oversight hearings, bureau-by-bureau, in May and June.

Helping to keep the FCC and Congress from kissing and making up are unresolved and highly controversial issues. These include free airtime for political candidates and what is perceived by some members of Congress as the FCC's tardiness in fully implementing the Telecommunications Act of 1996. Meanwhile, the US Justice Department has launched an investigation into possible criminal misconduct behind some aspects of the FCC's move to the new Portal office building in downtown Washington.

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Where are the RF Engineers?
Ralph Brooks, N6YRY

While the emphasis today is on training "software engineers" or programmers, there is a definite shortage of competent RF engineers and RF systems engineers. These positions used to be filled from the ranks of Amateur Radio, but as I tell recruiters who are begging for candidates, the universities have not graduated any *true* RF engineers for at least 20 years. The few competent RF engineers are mostly retored, dead or happily employed at very good saleries.

I have been an RF engineersince graduation in 1954. I started as a design engineer specializing in antennas and somewhere along the line graduated to RF systems engineering. For the last few years I have been an RF systems consultant to such companies as Ericsson, Sprint, Cummins, and MCI to name a few. With the new popularity of "wireless" systems, RF design and systems engineers are now greatly in demand. I have met with some young graduates who called themselves rf engineers, but they were totally lost when it came to hardware design, system analysis, or propagation experience. Not one of them had a ham license or was interested in getting one.

The United States definitely needs Amateur Radio. We're one of the last institutions capable of providing a pool of individuals with real RF experience.

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ARLB033 Local CB enforcement bill passes Senate
ARRL Headquarters Newington CT May 14, 1998

A bill giving state and local governments the power to enforce federal regulations covering illegal CB transmitters has passed the US Senate. Senate Bill 608, introduced by Wisconsin Sen Russell Feingold, was incorporated as an amendment into S 1618, the Consumer Anti-Slamming Act, approved May 12 on a 99-to-1 vote (Sen Biden not voting). The measure, as redrafted from the original bill with assistance from the ARRL, totally exempts Amateur Radio from its provisions.

The measure requires the FCC to provide technical guidance and includes an appeals process.

It's not yet known if or when the entire bill will come up for a vote in the House of Representatives.

In remarks read into the Congressional Record of May 12, Feingold spoke about his cooperation with the ARRL and with hams in Wisconsin and said the amendment incorporates a number of provisions suggested by the League.

"First, the amendment makes clear that the limited enforcement authority provided to localities in no way diminishes or affects FCC's exclusive jurisdiction over the regulation of radio," he said.

"Second, the amendment clarifies that the possession of an FCC license to operate a radio service for the operation at issue, such as an amateur station, is complete protection against any local law enforcement action authorized by this amendment."

Feingold pointed out Amateur Radio's tradition as a self-regulatory service. "The ARRL is very involved in resolving interference concerns both among their own members and between ham operators and residents experiencing problems," he said.

Feingold introduced his original version of the bill nearly two years ago after receiving complaints from constituents about interference from illegal CB transmitters. In 1996, the City of Beloit, Wisconsin, passed an ordinance giving the city the power to enforce FCC regulations concerning CB interference.

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Three types of Hams
Clinton Herbert, AB7RG

I've been wondering, after well over a year on the BBS network, and a lot more on just about every other mode and Amateur band, I've seen, heard, and met quite a few different Hams and attitudes, and I've come to a conclusion of sorts - there are three different types of Hams.

1. The "disgruntled" Ham. This type of Ham is easy to find. They are very bitter (for unknown reasons) and really do nothing to help out their fellow amateurs. What they do is complain a lot, get angry, yell and/or cuss at their fellow amateurs, and are a general pain in the rear. They do not care about Amateur Radio, just themselves. Kind of depressing when you think about them for too long.

2. The Ham who wants help and/or is "new" to Amateur Radio. Now this Ham could end up like either the first type of Ham, the third type of Ham, or just get out of Amateur Radio out of disgust. (Then we all lose.) This type of Ham just need helping hand, someone who's willing to help them set up their station or maybe even upgrade! They tend to find only the "disgruntled" Hams, and end up leaving the Amateur Radio service. Funny how most amateurs never even notice this type of Ham as they slowly fade away.....

3. The very rare Hams is the Ham who wants to help out, and does, in every way that he or she can. This can be in the form of joining ARES, becoming a VE, starting up Ham Radio classes (hey, a NO-Code tech is perfectly qualified to teach!),setting up a Club station, helping out the community, or helping the second type of Ham. Keep in mind that this third type of Ham is very rare, and if you find one, don't lose touch. Too bad that this type of Ham seems to be a dying breed. They might not be, if a few more "type two" Hams were helped out by say the "type one Hams," if they could get their act together. Yes, "type three" Hams care about Amateur Radio, and its future.

So, which "type" of Ham are you? Personally, I try my best to be a "type three" Ham. Food for thought!!

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TEXAN TECHNOLOGY

LOG ON:	Making a wood stove hotter
LOG OFF:	Don't add no more wood
MONITOR:	Keepin an eye on the woodstove
DOWNLOAD:	Gettin the farwood off the truk
FLOPPY DISC:	Whatcha get from tryin to carry to much farwood
RAM:	That thar thing whut splits the farwood
HARD DRIVE:	Gettin home in the wintertime
PROMPT:	Whut the mail ain't in the wintertime
WINDOWS:	Whut to shut then its cold outside
SCREEN:	Whut to shut when its blak fly season
MODEM:	Whacha did to the grass
LAP TOP:	Whar the kitty sleeps
KEYBOARD:	Whar ya hang the dang keys
SOFTWARE:	Them dang plastic forks and knifs
MOUSE:	What eats the grain in the barn
ENTER:	Northerner talk fer, "y'all c'mon in"
MOUSE PAD:	That hippie talk fer the rat hole.