

W5YI

Nation's Oldest Ham Radio Newsletter

REPORT

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable. May be reproduced providing credit is given to The W5YI Report.

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FCC FOLDS NOVICE EXAMS INTO VEC SYSTEM

On May 3rd, the FCC Commissioners agreed to place Novice Class operator license examinations in the Volunteer-Examiner Coordinator System. The following press release was issued by the Commission on Thursday, May 6th. [Quote]

"In the interest of integrity, simplification and efficiency, the Commission has amended the amateur service rules by placing responsibility for the preparation and administration of Novice Class operator license examinations under the volunteer-examiner coordinator (VEC) system. The Commission will also allow recovery of out-of-pocket costs for coordinating and administering such examinations.

"Currently, each examination for an amateur operator license, except the Novice license, is administered at a session coordinated by one of the 18 VECs. Under this system, the examination is administered by three volunteer examiners accredited by the VEC. An examination for a Novice license, however, is administered at an ad hoc [immediate and informal] session by two licensees selected by the examinee.

"The examination elements required for the Novice license are already being administered in the VEC System because they are also requirements for other classes of amateur operator licenses. With the advent of the codeless Technician Class, however, there has been a decline in the interest for new Novice licenses.

"To help standardize and simplify the license qualification process, the Commission has placed the Novice license examinations in the VEC system. Administering all amateur operator license examinations under the superior and more efficient VEC system will avoid the confusion that now exists because two different systems are used.

"The oversight provided by the VECs will result in fewer administration discrepancies and application errors than the Novice system. The data kept by the VECs provide a timely overview of the examination process and a means to gauge the effectiveness of the examination system.

"Additionally, by eliminating the separate certifications by examiners administering Novice license examinations under the ad hoc system, the license application Form 610 can be streamlined.

"Action by the Commission May 3, 1993, by Report and Order (FCC 93-218). Chairman Quello, Commissioners Barrett and Duggan." [End Quote.]

The press release was issued last Thursday but the full text of the *Report and Order* is not yet available. An attorney in the FCC's *Personal Radio Branch* told us that he expected that the R&O would be issued on May 12th - too late for our deadline on this issue.

While the major portions of the action are known, the fine print is yet to be released. The *Report an Order* will discuss the consideration given to the various public comments and any deviation made from the original proposed rules.

Basically the NPRM pretty much followed the suggestions of the American Radio Relay League and the W5YI-VEC, the original two petitioners in the matter. After collaborating on the issue, the two *Petitions for Rulemaking* were simultaneously filed on February 26, 1992.

Both the ARRL and W5YI-VEC asked that:

- (1) all operator license examinations - including Novice level - be coordinated by a VEC
- (2) all administering VEs must be accredited by the coordinating VEC
- (3) all examinations - including Novice level - must be administered by 3 VEs
- (4) each VE administering Novice Class operator license examinations must hold and FCC-issued Amateur Extra, Advanced or General Class operator license
- (5) a public announcement must be made before administering any examination - including the Novice Class

The W5YI-VEC petition - and the FCC *Notice of Proposed Rule Making* both provided for expense reimbursement (a test fee.) The ARRL did not address that matter at all in their proposal. The W5YI-VEC petition pointed out that "...the present modest fees that may be charged for VEC System examinations have not deterred entry-level applicants from the codeless Technician Class license."

The ARRL petition noted that "...the only stated reason for leaving the Novice program out of the volunteer examiner program for higher class licenses was that there was already in place a Novice volunteer examiner system.... It was not necessary at the time to disrupt a system which worked, in order to bring the Novice program within the (then untested) VEC program... The VEC program is almost a decade old and is eminently successful."

The League drew three conclusions in its petition:

- (1) The number of Novice examinations has decreased since the creation of the codeless Technician class license;
- (2) the VEC program is capable of assimilation of the remainder of the entry-level examinations and;
- (3) the ready availability of Technician class license examinations is apparent from the

number of new codeless Technician class licenses issued.

"Thus, if the Novice examinations were brought within the VEC program, it would appear that there would be no significant disruption of the VEC program, and that Novice examinations, like all other examinations, will be sufficiently available from local VE teams so that no prospective Novice would be deterred in finding an examination opportunity."

The W5YI petition stressed that "...there is no formal line of communications between the VECs (or the FCC, for that matter) and the volunteers who administer Novice Class operator examinations. If an FCC rule change requires deletion of a questions from the Element 2 question pool, there is no established channel to communicate this fact to Novice Class operator examiners."

The W5YI-VEC *Reply Comments* suggested that the FCC might also want to consider permitting the General Class amateur to examine the Technician Class as well "In view of the massive influx of beginning amateur radio operators at the Technician level... There can be no doubt that the Technician Class needs VEs more than the Novice level." The statutory regulations permit the General Class amateur to examine amateur radio license classes of a lower level.

W5YI-VEC also noted a "...lack of understanding of the objectives of this proceeding on the part of amateurs who now participate in the Novice testing program. ...Many commenters appear to be totally unaware that there is to be substantially no change in the manner in which a General (or higher) Class amateur may participate in the amateur radio testing program. ...the General Class amateur will still be able to conduct the examination in just about the same way and at the same locations as previously was the case."

"A Novice license training class or "Elmer" may still examine their students or apprentices at the end of the course or training period with the assistance of other examiners. It is not necessary that the Novice applicant journey to an outside VEC testing session. They may conduct their own Novice examinations as before and at the same sites. The primary difference is that the three examiners would have to be registered with and be able to obtain the appropriate updated examinations, forms and instructions from an authorized VE coordinator."

It is anticipated that the effective date of placing Novice examinations under the VEC system will be July 1st - the date that a new Element 2 Novice (and Element 3A Technician) examination question pool is to be implemented. We will cover the *Report and Order* in more detail in our next issue.

COLEM FILING WINDOW CLOSES ON MAY 7TH

On Friday, May 7th, I telephoned the FCC's Private Radio Bureau, Washington, D.C. headquarters to find out how the requests to become a COLEM were coming in. A COLEM - which stands for **Commercial Operator Licensing Examination Manager** - is the commercial radio equivalent of the Amateur Service's VEC, Volunteer-Examiner Coordinator. I spoke to the author of the *Report and Order* (released February 12th) that looks to privatize the administration of Commercial Radio Operator licenses.

By way of background for those of you who have not been following this proceeding, here is what has happened so far.

- (1) In 1986 - about two years after ham license exams were privatized - the FCC asked the public (via a *Notice of Inquiry*) whether commercial radio operator examinations should also be handled by the private sector.
- (2) As a result of that NOI, the FCC asked for - and received as part of the *Communications Commission Authorization Act of 1990* - legislation to delegate preparation and administration of commercial radio operator license examinations to private groups.
- (3) Last August, the FCC's Field Operations Bureau (FOB) which at one time was responsible for all license testing (both amateur and commercial) released a *Notice of Proposed Rule Making* seeking to set in motion privatized commercial radio operator license testing.
- (4) On October 1st, the administrative responsibility for overseeing the new Commercial Radio Operator license testing program was transferred from FOB to the Commission's Private Radio Bureau and PRB assumed control of the proceeding.
- (5) Public comments on the NPRM closed late last fall and a *Report and Order* was adopted on January 14, 1993, by the FCC Commissioners privatizing commercial radio operator licenses.
- (6) The commercial testing parameters adopted will pretty much follow those of the successful VEC System.
 - (a) Multiple testing organizations known as Commercial Operator License Examination Managers (COLEMs) will be approved and will be in competition with one another. COLEMs would be certified by the FCC through the use of a *Memorandum of Understanding* (MOU).
 - (b) Common and publicly released question

pools will be used for each of the 7 written tests. Individual exams will consist of answering approximately 20% of these questions.

(c) In addition there are 4 commercial telegraphy exams. Amateur Extra Class operators automatically qualify for the Morse code portion of the Second Class Radiotelegraph Operator's Certificate without further testing.

- (7) On February 17th, the FCC issued a *Public Notice* soliciting private sector assistance in updating the topics and questions for the common question pools. Nearly 2500 questions were received by the March 31st deadline.
- (8) On March 19th, the FCC suspended their semi-annual (February and August) Commercial Radio Operator examinations and established an interim testing procedure. This allowed special FOB testing if an applicant had been promised a job requiring a commercial license ...or testing by an equal or higher class licensed commercial operator if the applicant had applied for a commercial test prior to March 18.
- (9) On April 7th, the Commission issued another *Public Notice* opening a filing window (until May 7th) for groups wishing to become a Commercial Operator License Examination Manager. All requests for COLEM certification had to include qualifications, conflict-of-interest control, exam handling, geographic area covered, proposed fee structure ...and such.

I called the FCC on the afternoon of May 7th and was told that 46 COLEM applications had been received so far - including one from The W5YI Group, Inc.

Also requesting to be certified as a COLEM were: NARTE (National Association of Radio & Telecommunication Engineers), ISCET (International Society of Certified Electronic Technicians), ARA (American Radio Association - radio officers union), NARE (National Association of Radio Engineers), ETA (Electronics Tech Association International), ...among others.

I was told that a number of ex-FCC engineers - retired EICs - want to get into commercial radio operator testing. There were also a multitude of trade, technical and engineering schools, "learning centers", community colleges, maritime and merchant marine academies ...and even high school teachers that wish to be approved as COLEMs.

The Koolau Amateur Radio Group, a small VEC located in Hawaii applied. The Great Lakes Amateur Radio Club - another VEC - has been active in submitting comments and pool questions, but their

application had not been received as of the time we phoned the Commission.

Also missing was the ARRL, SBE (Society of Broadcast Engineers) and NABER (National Association of Business and Educational Radio.) It is very doubtful that the League will apply to become a COLEM since they have not been active in the proceeding at all.

I asked what would be the next step and was told that the Commission will now review the COLEM applications to determine who was best qualified. "We will certify a manageable number of COLEMs so that we are administratively efficient. I believe we are looking at a number on the same magnitude as VECs. [There are 18 VECs.] The main concern we have, however, is not so much the number ...but the coverage. We want to be sure that whoever we certify has examinations widely and readily available and convenient to applicants."

"We will look at the proposals and work up a ranking based on the context of the *Report an Order* and give preference to those entities willing to provide the best service such as offering examinations for the most types of licenses over the broadest geographical area."

"While we do not have a hard and fast selection date, we must do this as soon as possible if we are going to have [privatized commercial] exams by the end of the summer. COLEMs may even have to use existing examinations if all pools can not be developed in this time frame."

The Element 1 (Basic radio law and operating practices) and Element 3 (technical questions) pools will probably be the first issued "...since they will satisfy the most demand. This could happen in the July time frame, but it is real busy [here at the FCC] right now." Element 1 and 3 are the license exam requirements for the General Radiotelephone Operator License (GROL).

LENORE JENSEN, W6NAZ S.K.

Former radio drama actress **Lenore Jensen, W6NAZ**, died May 5, 1993, in Sherman Oaks, California. She was 79 years old, the widow of retired Broadcast Engineer Robert Jensen, W6VGQ, and one of Amateur Radio's premier ambassadors of good will worldwide.

Lenore was first licensed as W9CHD in 1939 in Chicago, where she was a contract actress for NBC. She became W2NAZ after moving to New York City in 1940, and then W6NAZ after the Second World War, when she and her first husband, Joe, W2MSC, moved to Los Angeles.

Most of her operating involved message hand-

ling and phone patching. According to a profile in the December 1987 issue of QST, she ran over 68,000 Army MARS phone patches during the Vietnam War.

She was also one of the 13 surviving founding members of the *Young Ladies Radio League*, and the 1983 Dayton Amateur Radio Association's *Special Achievement Award* winner for "...her dedication in service to others through the medium of Amateur Radio."

W6NAZ was especially important to the Amateur Radio public relations effort. Her long and highly successful career in the entertainment industry permitted her access to many stars and celebrities who appeared in ARRL released Public Service Announcements (PSA's) over the past two decades.

Lenore also appeared in several ARRL films and videos including the award winning "World of Amateur Radio" produced by Dave Bell, W6AQ in 1979. W6NAZ was also a regular contributing writer to *World-radio News* magazine.

There was no funeral. According to her close friend, Dick Ritterband AA6BC, she was to be cremated and her ashes scattered at sea. Survivors include two stepchildren; author Cynthia Wall, KA7ITT; and Stephen Jensen, W6RHM. In lieu of flowers memorial donations may be made to the ARRL Foundation, the Los Angeles Recordings for the Blind Assn., or the American Cancer Society. (WA6ITF)

TORNADO KILLS HAM RADIO INSTRUCTOR AND VE

A killer tornado swept through a Tulsa, Oklahoma, suburb on April 24th killing seven people. The tornado touched down six miles east of Tulsa and destroyed about 200 structures. President Clinton declared the region a federal disaster area.

Bill Moore, KF5DL, was helping two fellow ham operators, Joe/KB5CWP and Clara/N5UBA Brassfield, repair their radio in a shop at a truck stop in Tulsa when the tornado hit. Bill sat up and said he was all right at first, but was dead when the ambulance arrived. Both Joe and Clara were taken to a local hospital and will recover.

Bill Moore founded the Tulsa Amateur Radio School where he taught hundreds of people how to operate ham radios for emergencies and public service events. He was a member of the Tulsa Amateur Radio Club, Tulsa Repeater Organization and the American Airlines Amateur Radio Club. Once a month he travelled to Ardmore, Oklahoma, where he also taught the basics of radio operation to beginners.

Moore retired from Sears as an electronics technician in 1985. He is survived by his wife, Dorothy, and a son and daughter. It was just a week earlier that he conducted a VE test session in Tulsa.

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MARCH VE PROGRAM STATISTICS

<u>March</u> <u>No. VEC's</u>	<u>1991</u> <u>*18</u>	<u>1992</u> <u>*18</u>	<u>1993</u> <u>*18</u>
Testing Sessions			
<u>VEC</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
ARRL	36.1%	47.0%	46.3%
W5YI	41.1	38.5	41.1
CAVEC	7.2	4.2	4.2
WCARS	2.5	1.8	2.4
GtLakes	4.1	3.5	1.1
Others (13)	9.0	5.0	4.9
Year-to-Date Sessions	1488	2394	2449
Elements Administ.			
<u>VEC</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
ARRL	39.8%	55.4%	51.0%
W5YI	36.6	29.2	34.5
CAVEC	7.1	4.2	4.2
WCARS	3.1	1.4	2.7
GtLakes	3.4	2.0	1.1
Others (13)	10.0	7.8	6.5
Year-to-Date Elements	28468	52586	46441
Applicants Tested			
<u>VEC</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
ARRL	39.7%	55.2%	51.0%
W5YI	36.2	29.7	34.5
CAVEC	5.0	4.0	4.0
WCARS	3.1	1.5	2.8
GtLakes	5.2	3.0	1.2
Others (13)	10.8	6.6	6.5
Year-to-Date Tested	17814	30907	27169
March			
Pass Rate - All	65.5%	67.5%	65.7%
Applicants/Session	14.4	14.3	11.8
Elements/Applicant	1.7	1.7	1.7
Sessions Per VEC	35.4	48.4	58.1

Administrative Errors by VE's/VEC's

<u>March</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
Defect. Applications	5.0%	0.4%	0.1%
Late Filed Sessions	0.2%	0.6%	3.2%
Defective Reports	1.1%	0.7%	2.4%

Note: The VEC testing figures indicate that the larger VEC's (namely ARRL and W5YI) are getting larger and the balance of the VECs are obtaining a smaller piece of the ham testing marketplace. In March 1988 (5 years ago), the ARRL-VEC and W5YI-VEC accounted for 72.7% of all testing. It has steadily increased to 1993's 85.5% of all exam elements administered!

[Source: Personal Radio Branch/FCC; Washington, D.C.]

MARCH AMATEUR LICENSING STATISTICS

<u>March</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	
New Amateurs:					
New Novices	2466	1734	1364	564	
New Tech's	205	882	3347	3608	
Total New:	2727	2636	4806	4239	
Upgrading:					
Novices	1382	1157	898	838	
Technicians	513	*524	*798	*917	
Generals	393	317	468	631	
Advanced	229	218	353	393	
Total:	2517	2216	2517	2779	
Renewals:					
Total Renew:	142	57	92	128	
Novices	60	6	9	14	
Purged:					
Total Dropped:	20	373	15	19	
Novices	15	106	1	2	
Census:					
Indiv. Oper.	459850	507083	555989	600445	
Change/Year	+10438	+47233	+48906	+44456	
Individual Operators by Class: (and % of total)					
<u>Extra</u>	<u>Advan.</u>	<u>General</u>	<u>Technic.</u>	<u>Novice</u>	<u>Total:</u>
March 1990					
49346	100156	114964	112872	82512	459850
10.7%	21.8%	25.0%	24.6%	17.9%	100.0%
March 1991					
54489	105806	120496	130843	95449	507083
10.7%	20.9%	23.8%	25.8%	18.8%	100.0%
March 1992					
58543	108303	123000	167921	97922	555989
10.5%	19.5%	22.2%	30.2%	17.6%	100.0%
March 1993					
62397	110656	126011	201670	99711	600445
10.4%	18.5%	21.0%	33.5%	16.6%	100.0%
Club/					
RACES &					
Military:					
Total Active:					
% Increase					
+2.3%					
+10.2%					
+9.6%					
+8.0%					

(* = Does not include Technicians upgrading to Tech Plus)

NUMBER OF AMATEURS BY CALL SIGN GROUP:

Group	Extra	Advan.	General	Technic.	Novice	Total
A	35406	683	249	7	0	36345
B	3989	28953	54	6	1	33003
C	14347	44080	67542	89727	48	215744
D	8410	36823	58059	111869	99660	314821
Other	245	117	107	61	2	532
Total	62397	110656	126011	201670	99711	600445

[Group "A"-2X1 & 2X2; "B"-2X2; "C"-1X3 "D"-2X3 format.]

[Source: FCC Licensing Facility, Gettysburg, PA]

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NEW HAM LICENSEES GROW BY 93,611 IN TWO YEARS FOLLOWING ADOPTION OF NO-CODE LICENSE

Newcomers to the Amateur Radio Service

Class	1990 Apr	1990 May	1990 Jun	1990 Jul	1990 Aug	1990 Sep	1990 Oct	1990 Nov	1990 Dec	1991 Jan	1991 Feb	1991 Mar	Total	% Inc.
Nov	2368	3875	1724	1665	893	1382	1457	1498	2957	1713	1819	1734	23085	
Tech	239	359	214	269	158	128	283	182	260	89	207	*882	3370	
Other	51	50	46	69	38	42	86	66	41	14	36	40	580	
Total	2658	4284	1984	2003	1089	1552	1826	1746	3259	1816	2162	2656	27035	

Average number of newcomers per month: 2253 (* = First Codeless Technician license issued: 3/12/91)

Class	1991 Apr	1991 May	1991 Jun	1991 Jul	1991 Aug	1991 Sep	1991 Oct	1991 Nov	1991 Dec	1992 Jan	1992 Feb	1992 Mar	Total	% Inc.
Nov	2651	1801	1088	1662	872	679	1070	813	1270	655	1260	1364	15185	-34%
Tech	3025	2858	2112	2932	3180	1680	3354	1815	2608	3318	2764	3347	32993	+869%
Other	73	55	31	82	69	48	77	59	62	57	68	95	776	+34%
Total	5749	4714	3231	4676	4121	2407	4501	2687	3940	4030	4092	4806	48954	+82%

Average number of newcomers per month: 4080

Class	1992 Apr	1992 May	1992 Jun	1992 Jul	1992 Aug	1992 Sep	1992 Oct	1992 Nov	1992 Dec	1993 Jan	1993 Feb	1993 Mar	Total	% Inc.
Nov	1330	1066	1371	1024	463	617	456	454	642	1288	764	564	10039	-34%
Tech	3870	3058	4525	2752	2495	2069	1548	1054	2633	3381	3042	3608	34035	+3%
Other	15	54	61	67	45	46	31	17	47	59	74	67	583	-25%
Total	5215	4178	5957	3843	3003	2732	2035	1525	3322	4728	3880	4239	44657	-9%

Average number of newcomers per month: 3721

Applicants examined at VEC test sessions over last three years

Year	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total	Inc.
90/91	6594	6686	5306	4713	4733	4236	5132	5924	5765	3614	4995	9205	66903	
91/92	10779	13819	7867	8392	8240	7583	10251	8131	10375	7946	10481	12480	116344	+74%
92/93	13360	10236	10180	8351	8154	7010	9351	8107	10196	6432	8427	12310	128475	+10%

THE TECHNICIAN CLASS: THE HAM PATH OF CHOICE!

Above is our second annual report on what has happened to ham radio since code-free hamming came to the Amateur Service. The above three years represent the year immediately prior to "No Code" ...and the two years afterward.

IN THE YEAR PRIOR to the kickoff of the Codeless Technician, 85% of the 27,000 newcomers learned Morse Code and entered ham radio as a Novice.

IN THE YEAR FOLLOWING, the number of first time licensees jumped from an average of 2250 to nearly 4100 a month - an 82% increase. The first Codeless Technician ticket was not issued until March 12, 1991. Of the nearly 49 thousand newcomers; two-thirds chose the No-Code Technician path into ham radio. The number of beginners entering ham radio at the 5-WPM Novice level, however, nose-dived by 34%.

IN THE SECOND YEAR FOLLOWING the number of Code-less Technicians continued to increase, but by a much lower percentage. The average number of newcomers to ham radio dropped to 3700 a month signalling the end of the initial surge. Interest in

the Codeless Technician Class certainly seems to be holding up, however. The FCC was right on target in their view that, given a choice, most newcomers to ham radio would elect the codeless path. Entry in Amateur Radio at the Novice level, however, continues to deteriorate badly ...down another 34%.

THE NUMBER OF EXAMINEES showing up at VEC exam sessions just about doubled in the year following the arrival of no-code hamming. - from 67 to 116 thousand applicants. For the year ending March 1993, the number of examinees jumped another 10% to more than 128 thousand!

WHAT ABOUT THE FUTURE? While the total ham ranks have increased by just a little over 5% a year since 1987, the Technician Class has mushroomed by 15% annually. If this continues, we will have more Technicians within five years than all other ham classes combined! To put it a different way, the Amateur Service has expanded by more than 165 thousand newcomers over the last five years and 100 thousand of them (two-thirds) are Technicians. While "no-code" certainly has impacted the Technician Class, the popularity of VHF/UHF started long before 1991.

STS-55/SAREX MISSION, A SUCCESS!

After two delays, the Shuttle Columbia finally lifted-off on April 26th with 7 astronauts that included 5 licensed radio amateurs aboard along with the Shuttle Amateur Radio Experiment (SAREX). The crew on STS-55 included ham radio operators *Steve Nagel (N5RAW)*, *Jerry Ross (N5SCW)*, *Charlie Precourt (KB5YSQ)*, and German amateurs, *Hans Schlegel, (DG1KIH)* and *Ulrich Walter (DG1KIM)*.

SAREX operations on this flight included 2M voice and packet. The primary voice callsign was N5RAW; packet radio callsign: W5RRR-1. The packet radio "robot" downlinked almost continuously on 145.550 MHz; uplink: 144.499 MHz.

In addition to the U.S. SAREX ham gear in the Shuttle mid-deck, an additional ham radio station was flown in the German spacelab module. This station, designated SAFEX (for Spacelab Amateurfunk-Experiment), included a 2M FM downlink and a 70cm FM uplink capability. A dual band (2M/70cm) external antenna, mounted on the German spacelab module, was used for SAFEX contacts. Payload Specialists Schlegel and Walter also made a few scheduled contacts with European schools with this equipment.

The externally mounted SAFEX antenna gave the SAREX team an opportunity to compare the performance of the U.S. SAREX window mounted antenna to an externally mounted antenna. A special A/B antenna test was conducted on orbits 61 and 62 using the normal SAREX downlink frequency, 145.550 MHz. During orbit 61 the crew transmitted using the SAREX window antenna and on orbit 62 the crew switched to the SAFEX external antenna. Amateurs in the Southeastern U.S. were asked to help participate in this test by taking signal strength readings of the received signal for both orbit passes.

The externally mounted SAFEX antenna turned out to be the better of the two. This antenna is basically a 1/4 wave whip mounted on the outside of the metal module with an airtight feedthrough. This antenna performed admirably with a significant signal/noise boost when compared to the window antenna. Later, when the SAREX window antenna cable failed (the N-connector pulled out of the cable), the Shuttle Crew brought the packet TNC and the Motorola 2-Meter handheld into the German Spacelab module to use their externally mounted SAFEX antenna.

A power conservation effort on the Space Shuttle Columbia allowed the STS-55 mission to be extended for one full day beyond its original 8 days 21 hours. As a result of this extension day, the Shuttle Amateur Radio Experiment (SAREX) working group got permission to extend operations until May 5 at 20:50 UTC.

Nearly all the school contacts had been completed at this point, so the crew concentrated on general voice and packet QSO operation and several stations reported making packet connects to STS-55.

The STS-55 Spacelab D-2 mission came to a conclusion on Thursday May 6 after completing 160 orbits, and traveling over 4.1 million miles. Columbia's main gear touched down at 9:30 CDT on runway 22 at Edwards Air Force Base in California. Columbia was originally scheduled to land at the Shuttle Landing Facility at Kennedy Space Center in Florida, but was diverted to the alternate landing site at Edwards due to unacceptable weather conditions.

As with all SAREX flights, a special QSL card is planned for this mission. If you made a 2-way contact with the crew or heard the SAREX downlink, you qualify for a QSL card. The IBM Amateur Radio Club of Boca Raton, Florida has volunteered to act as the QSL manager for the STS-55 SAREX mission. Please send your QSLs to:

IBM Amateur Radio Club/1993
PO Box 1328
Boca Raton, FL 33429-1328

On the outside of the envelope, please write STS-55 SWL or STS-55 QSL 2-Way depending on whether you heard the downlink or made a two-way contact.

For all QSLs, it is essential that you include an Self-Addressed, Stamped Envelope (SASE) using a large business-size (4 inch x 9½ inch) envelope. If an SASE or sufficient IRCs are not included with your signal report you will not receive a QSL card.

ARSENE OSCAR SATELLITE LAUNCH RESCHEDULED

The French Amateur Radio satellite ARSENE is now scheduled for orbiting by the European Space Agency from its Kourou, French Guiana, launch site at 00:51 UTC on May 11th. The launch window closes at 01:49 UTC. (19:51 to 20:49 CDT - May 10) It was originally scheduled to fly on April 20th. The reason for the delay was to give Hughes Aerospace time to repair a damaged antenna on the primary payload, the Astra 1C geostationary television satellite. ARSENE is sponsored by the French satellite organization, "Radio Amateur Club de l'Espace" (RACE.)

Following the launch, five to six days will be necessary to check out the new satellite before releasing it for general amateur use. All amateurs are asked to please refrain from transmitting to ARSENE prior to its release so that the RACE control team will be able to certify it open for use.

ARSENE will be in a very interesting, somewhat elliptical equatorial orbit with an apogee of 36,055 km and a perigee of 19,629 km. ARSENE will be primarily a digital satellite but will not contain a BBS. It will, however, be an orbiting digipeater, utilizing standard AX.25 1200 baud AFSK on both uplinks and downlinks. ARSENE will carry the callsign FXØARS but the packet frames will be labelled ARSENE-1, ARSENE-2 and ARSENE-3. Although, it is primarily intended for digital operation, it is understood that some CW/SSB analog work may be possible through the 16 KHz wide Mode-S Band downlink.

Frequencies will be:

Uplinks: 435.050, 435.100 and 435.150 MHz
Downlinks: 145.975 and 2446.500 MHz

The 435.050 MHz and 435.150 MHz uplinks will be coupled to the 145.975 MHz downlink, while the 435.100 uplink will be paired with the 2446.500 MHz S Band downlink.

WA3NAN (Goddard Space Center Amateur Radio Club, Greenbelt, MD) hopes to retransmit live ARSENE launch coverage on HF if they can obtain a live audio feed. In any event, there will be a "launch-net" to help keep amateurs around the world informed on the progress of ARSENE, especially in the first few critical orbits. We assume the regular WA3NAN HF frequencies apply. (3880, 7185, 14295, 21395 and 28650 kHz.)

- Congress recently enacted legislation that holds **non-licensed radio tower owners additionally responsible** for the FCC's tower painting and/or illumination requirements. The Commission has now implemented the new law. Previously only station licensees placing antennas on non-owned towers were subject to forfeiture. The tower owner may now be fined if he has been previously notified of his obligations by the FCC or one of the licensees using the tower. There have been many instances (even one where the total fine exceeded \$100,000) where licensees were fined for leasing space on a non-owned tower that was not in compliance. The new Forfeiture Rules were adopted by the Commission by Report and Order on May 3rd.

- FCC Engineer-in-Charge **J. Jerry Freeman** who heads up the FCC's Norfolk, Virginia, field office has been selected as the **1993 winner of the Eugene C. Bowler Award**. The award was established in memory of a former Chief of the Land Mobile and Microwave Division of the FCC's Private Radio Bureau who died of cancer in 1985. The honor goes to a government employee who demonstrates career excellence while

working in the telecommunications field. The winner may not be a Presidential appointee or an appointed official.

Freeman joined the FCC in the 1960's and holds a graduate degree in Electrical Engineering. Jerry also is an Extra Class radio amateur with the call sign of W4JJ. He was honored by representatives of government and the telecommunications industry at the Eugene C. Bowler Foundation's annual dinner on April 28, 1993 in Washington, D.C.

- The 1993 **Dayton HamVention held the weekend of April 23-25** is now history! And the rain didn't seem to slow the crowd down. It was their largest HamVention ever! According to General Chairman Dave Grubb KC8CF, more than 35,000 showed up. Over \$115,000 in prizes were given away. The top four prizes went to Alex Benitex WX3Q (Yaesu FT1000D HF Transceiver and FL700 Linear Amp), Vic Keller XE1VIC (Yaesu FT376R 2M/70cm dual bander), Liz Shaw of Toronto (Yaesu 890 HF rig) and Chuck Federonis KD4VW (Kenwood TS850 transceiver/tuner.)

Saturday's huge banquet audience (nearly 1500) was entertained by Cliff Stoll's (K7TA) animated retelling of his experiences tracking down hackers.

The Thursday night Amateur Radio Industry Group meeting heard excellent formal presentations by ARRL's Rosalie White, WA1STO (on ham radio growth), Sammy Garrett AAØCR (on a Young Hams Newsletter), AMSAT's Bill Tynan W3XO (on Phase 3D amateur satellite progress) and Mike Forsyth N7KQE (on the upcoming HamShow'93 to be held at the Valley Forge PA Convention Center Aug. 21 and 22.)

Forsyth said the 100 commercial booths had sold out and that more are being added. He also announced that negotiations had been completed to hold five major (50,000 sq. ft.) HamShows'94 at:
San Diego, CA - Jan. 8-9 (Town & Country Convention Ctr.)
Santa Clara, CA - Jan. 29-30 (Santa Clara Convention Ctr.)
Chicago, IL - Jul. 30-31 (Pheasant Run Resort/Convention)
Springfield, MA - Aug. 6-7 (Eastern States Exposition Ctr.)
Valley Forge, PA - Aug. 27-28 (Valley Forge Convention Ctr.)

FCC's John Johnston and Bill Cross previewed the industry audience on upcoming amateur radio rulemaking - including the proposed VE procedure which allow foreign amateurs visiting the United States to get on the air for a period of 60 days quickly. Johnston particularly had words of praise the work done by volunteer examiners operating under the VEC System.

At the FCC Forum on Sunday morning, Johnston and Cross updated those assembled on the status of all current FCC amateur radio rulemaking. Fred Maia, W5YI and Ray Adams N4BAQ covered recent VEC activity including the new Novice and Technician question pools that must be used effective July 1st.

- The British Radiocommunications Agency (*the British counterpart to our FCC*) is now permitting individual amateurs in the UK to establish repeater stations. Up until April 1, 1993, the Radio Society of Great Britain (RSGB) had been the licensee of all amateur repeater stations in the United Kingdom. The new licensing procedure will involve issuing a *Notice of Variation* to an amateur to operate a repeater station.

[An amateur radio repeater is a station usually located at a remote high site that extends the range of communications between amateurs operating mobile by automatically receiving and retransmitting such messages at higher power using high gain antennas.]

The amateur "repeater keeper" is responsible for the correct operation of the repeater, for monitoring the use made of the repeater and for taking steps he (or she) thinks fit in liaison with the Agency and the RSGB to limit messages that are not permitted in the Amateur Service.

The RSGB will act as the agent for the Agency for distributing the *Notices of Variation*. The main change will be that the amateur licensee will now be responsible for proper repeater operation rather than the RSGB. It also will relieve the RSGB of the massive administrative burden and heavy expense of managing the UK amateur repeater network.

- The FCC has adopted an Order governing signature requirements for license applications that sets the stage for the implementation of electronic filing of private radio license applications. [The private radio services include maritime, aviation, land mobile, microwave, and the personal and amateur radio services.] Up until May 1st, all license applications filed with the FCC had to include a personally signed handwritten signature. On October 1992, Congress amended the *Communications Act of 1934* to allow electronic filing of license applications and to allow applications to be signed "...in any manner or form, including electronic means, as the Commission may prescribe by regulation."

The FCC has now modified the signature requirement by deleting the word "personally" and allowing applica-

tions to be signed by computer-generated impulses.

Private radio applications comprise the largest category of applications that must be processed by the Commission.

"Our ultimate goal is to eliminate to the maximum extent possible, the filing of paper applications. Electronic filing will expedite the licensing process by eliminating the need for manual entry of application data into the Commission's data base. We also hope to develop the means to generate and transmit license information to licensees electronically with no intermediate paper documents," The FCC said in their April 15th Order.

- *ATIS is dead!* Back in 1986, the FCC began a proceeding to establish a means by which all radio transmitters would also transmit an equipment identifier. *Automatic Transmitter Identification System* (ATIS) rules for video satellite uplink stations were adopted in 1990 but the portion of the proposal related to other services remained outstanding. The FCC believes that ATIS is no longer needed because digital signal processing now makes it possible to identify transmitters by analyzing signals.

- *The diehard AMers still feel they should be allowed higher power amplitude modulated (AM) emissions in excess of the 1500 watts PEP maximum permitted in the amateur service.* In 1990, the Private Radio Bureau denied the request of Dale E. Gagnon (KW11 of Bow, NH) to amend the AM amateur power limitations and a 1991 *Petition for Reconsideration*. Last month the Private Radio Bureau denied Gagnon's *Request for Waiver of the Amateur Transmitter Power Standards*.

- *The FCC continues to deny code credit to questionably handicapped amateurs.* The FCC in Gettysburg, PA, is writing to the doctor's certifying telegraphy exemptions. In many cases, the doctor agrees that if the applicant was accommodated with a special examination procedure the handicap would not prevent passing a Morse code examination. It is the responsibility of the applicant to provide any special equipment for testing.

- *Hard to believe Dept.!* On March 4, 1993, the New York Taxi and Limousine Commission unanimously denied a request from taxi drivers who wanted their taxicabs equipped with FCC-licensed ham radios.

- The FCC has finalized its ban on the *manufacture, import and marketing of radio scanners capable of receiving cellular telephone service*. The FCC was required to establish this ban by Congress. "Scanners" are defined as radio receivers that can automatically switch between four or more frequencies in the 30-960 MHz band.

The law requires the FCC to establish rules that deny equipment authorization to any scanner that can receive cellular; be readily altered by the user to receive cellular. Scanner manufacturers will have to provide information to the FCC "describing why their devices cannot be easily modified."

It will be possible to sell used scanners capable of receiving cellular as long as the scanners are FCC-certified and were manufactured and/or imported before April 26, 1994. The Commission warned equipment sellers, "especially those trading in used equipment," that scanners modified to receive cellular are no longer FCC-certified and may not be legally marketed.

Retailers will not be held responsible for marketing scanners that were certified and were subsequently found to be readily alterable. However, the FCC may order retailers to stop marketing such products.

The FCC added, "Furthermore, any retailer marketing a scanner that also performs alterations to that scanner so customers can receive cellular frequencies will be violating FCC rules and the Communications Act, and therefore will be subject to appropriate enforcement sanctions."

- *Think long and hard before you install DOS 6.0 on your computer.* There have been many reports that the *DoubleSpace Compression Utility* can corrupt data on a variety of PCs and that the problems may not show up during the first several weeks of use. Microsoft says the problem is isolated and insists the product is safe to use.

FCC ACCEPTS HF PACKET PETITION FOR COMMENT

On April 16, 1993, the FCC acknowledged receiving a *Petition for Rule Making* from the American Radio Relay League. The proposal requests **"Amendment of the Commission's Rules Governing the Amateur Radio Services Concerning High-Frequency Data"** and has been assigned Rule Making file number: RM-8218. The well done 34-page petition was completed and filed by the League's Washington, DC-based attorney, *Chris Imlay N3AKD*.

The petition concludes that the amateur service has greatly benefitted from the FCC's accommodation in allowing several periods of experimental HF data communication under automatic control and suggests that permanent rules should now be adopted for future high frequency data communications.

Here are some of the points made in the proposal:

- (1) Digital communications in the high-frequency (HF) amateur bands are enjoying a period of especially rapid development. The newer forms have automatic error-correction.
- (2) Current rules only permit automatic control of digital communications above 50 MHz. And only packet stations using the AX.25 protocol may pass third party traffic.
- (3) The FCC and ARRL are both concerned that automatically controlled stations without proper limitations have the potential to interfere with ongoing locally controlled HF communications.
- (4) In 1987, the League requested the first of a long series of special temporary authorizations (STAs) to determine the feasibility of automatic control of digital communications below the VHF level.
- (5) The first 6-month authorization permitted a specified number of HF packet stations to participate in a message-handling network known as SKIPNET. The FCC said the last STA (due to expire on February 3, 1993) would not be further renewed without an accompanying proposal for permanent rules for automatic control of HF data communications.
- (6) The League found that (a) HF packet works well and, with careful frequency selection, can provide a public service without undue interference to other amateur activities, (b) network management and control is necessary, (c) originating station should be responsible for traffic accountability, (d) packet radio is not compatible with other modes and needs separate frequencies, (e) frequency stability should be on the order of 10 Hz, (f) protocols need improvement and new capabilities are needed, (g) modems need im-

provement, (h) "watchdog timers" to disable transmitters in the event of malfunction are essential, (i) stations need to change frequencies in accordance with propagation conditions and (j) power limitations specific to data modes are neither practical nor justified.

- (7.) A 1989 ARRL petition proposing limiting automatic control of HF data to certain internationally accepted subbands was generally opposed by those filing comments. The petition was withdrawn to "rethink the matter" and the STA was requested to be continued.
- (8.) The League then decided that HF packet stations should operate under local control and that the subbands for such operation be left to voluntary band planning. The HF packet community labelled this plan as unworkable and unacceptable and said it would preclude full utilization of the communications opportunities offered by the technology. The ARRL's Digital Communications Committee was asked to revisit the matter.
- (9.) Fortunately, an IARU (International Amateur Radio Union) Region 2 meeting produced a substantially revised HF band plan which provided less risk of interference to other incompatible modes.
- (10.) With respect to HF data transmissions, the League is now recommending that: "Consistent with the frequency privileges and other operating limitations applicable to the license class of the operator, any amateur station may be operated under automatic control using any accepted protocol for data transmission within the following frequency segments: 28.120-28.189 MHz, 24.925-24.930 MHz, 21.090-21.100 MHz, 18.105-18.110 MHz, 14.095-14.0995 MHz, 14.1005-14.112 MHz, 10.140-10.150 MHz, 7.100-7.105 MHz and 3.620-3.635 MHz. "Such stations should be equipped with means to limit transmissions to no more than five minutes in the event of an equipment malfunction or interruption of contact with another station. Third party communications may be transmitted under automatic control using any authorized emission code, provided that the retransmitted messages must originate at a station that is being locally or remotely controlled. HF data operation should be permitted outside these specified subbands as per current rules, but only under local (or remote) control."

The FCC has set an initial 30 day comment period prior to issuing a **Notice of Proposed Rule Making**.