

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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Electronic FCC Commentin...and
much much more!**

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July 15, 1996

STS-78 SAREX Mission a Big Success! STS-79 is next!

The space shuttle Columbia began its Life and Microgravity Sciences (LMS) mission on June 20th with an on-time launch from the Kennedy Space Center. Its crew of seven were lofted into the mostly sunny Florida sky at 14:49 UTC.

This marked the 20th flight of Columbia and the 78th mission flown since the start of the space shuttle program in April 1981. The mission was originally planned for 15 days, 22 hours in duration. The primary goal of this long duration mission is to conduct microgravity research using the Life and Microgravity Spacelab (LMS) payload.

The seven member crew includes three ham radio operators: Mission Specialist Susan Helms, KC7NHZ; Charles "Chuck" Brady, N4BQW; and Canadian Payload Specialist Bob Thirsk, VA3CSA. The other four shuttle crew members include Commander Tom Henricks, Pilot Kevin Kregel, Mission Specialist Rick Linnehan and Payload Specialist Jean-Jacques Favier.

Payload Commander Susan Helms, KC7NHZ is making her third Shuttle flight. Mission Specialist Chuck Brady, Jr., N4BQW and Canadian Payload Specialist Robert Thirsk, VA3CSA are both making their first flight.

STS-78 also carried the Shuttle Amateur Radio Experiment. SAREX provides school groups and ham radio operators an opportunity to talk directly with Space Shuttle Astronauts as they circle the Earth. SAREX was flown in Configuration C (two meter voice and packet) with operations being

initiated on Flight Day 3 (Saturday, June 22).

During the flight, the shuttle astronauts completed scheduled contacts with 11 school groups from around the world. The following schools participated: Bethlehem Central Sr. High School, Delmar, NY; Eisenhower Middle School, San Antonio, TX; Heritage Middle School, Colleyville, TX; Anacortes Middle School, Anacortes, WA; Valley Heights Jr-Sr High School, Blue Rapids, KS; Monroe Elementary School, Santa Barbara, CA; Maple Grove Education Centre, Hebron, Nova Scotia, Canada; Saskatoon Public AreospaCe Education (S.P.A.C.E.), Saskatoon, Saskatchewan, Canada; Toowoomba State High School, Toowoomba, Queensland, Australia; Catholic Ladies College, Eltham, Victoria, Australia; and CENG - the Nuclear Center of Grenoble, Grenoble, France.

Another new wrinkle for STS-78 is the capability to accept questions from the public directly from NASA's website at <http://shuttle.nasa.gov>. During one of the presleep period, four crewmembers took half an hour to answer questions posed to the Shuttle Web's "Ask the Crew a Question" feature. Astronauts Terence Henricks, Richard Linnehan, Bob Thirsk, VA3CSA, and Chuck Brady, N4BQW took turns responding to questions from the Internet on subjects ranging from exercise to smuggling snacks.

One of the questions was submitted by SAREX volunteer Pat Kilroy, WD8LAQ of Bowie, Maryland. His message was directed to astronaut

Chuck Brady: "How important a role will SAREX play on this mission and on future International Space Station missions?"

Brady replied, "Well Pat, I really think it's tremendously important. In fact, from [astronaut] Norm Thagard's experience and Shannon Lucid's experience on Mir and our experience, I think the longer the stay the more important it is to have that kind of personal contact back to Earth, and it's something I think will play a real important role in helping morale, and keeping the psychological adjustment steady aboard the [space] station."

"Interestingly enough, we just made a SAREX contact to a U.S. Navy ship at sea, the USS Essex, which was about a thousand miles off the coast of San Diego, and they'd been on quite a long deployment and I think really enjoyed it from their end and we certainly did here onboard Columbia."

Amateur radio activity

The STS-78 crew made as many random SAREX contacts as their schedules permitted. When busy with experiments, the crew is using the packet radio meta-beacon to broadcast a summary of their activities and greetings.

A new feature allows the SAREX robot to relay special APRtrak position packets during the mission. Stations running APRtrak software will see successful packet uplink stations show up on their computerized maps.

Follows is an actual transmission from the shuttle's packet robot with the position packets appearing in the middle of a greeting from the crew:

```
KE4EER>APRS via *W5RRR-1 [27/JUN/96 08:08:30]:  
<UI>:{F0}  
W5RRR-1 :Hello STS-78 Frm KE4EER{1  
here is a robot data message---  
Greetings from the space shuttle Columbia! We have now  
been on-orbit for six days. We have been busy operating the  
experiments of the Life and Microgravity Spacelab mission.  
Today we had a half-day off and used this time to operate our  
am  
W5RRR-1>QST [27/JUN/96 08:09:02]: <I10>:{F0}  
ateur radio and set up the packet system. We have made  
several voice contacts with amateur operators in North  
America, Africa, Australia and Hawaii. The view of the  
Mediterranean and Middle East in the morning has been one  
of the highligh  
W5RRR-1>QST [27/JUN/96 08:09:03]: <I20>:{F0}  
ts of the mission for all of us. 73's Tom, Kevin, Susan  
(KC7NHZ), Rick, Chuck (N4BQW), Mongo and Bob (VA3CSA).
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Columbia was scheduled to land on 06-Jul-96 at 12:46 UTC at the Kennedy Space Center. Mission Control has been carefully managing and monitoring Columbia's electrical power consumption with an eye

towards extending the flight one day to allow additional science data gathering.

The extension day was approved on July 1st which will make the STS-78 flight, NASA's longest Shuttle mission to date. Endeavour currently holds that mark on the STS-67 Astro-2 mission which flew in March 1995. That flight lasted 16 days, 15 hours.

The current mission is now planned to last 16 days, 21 hours. The record will be broken as the crew prepares for reentry in the early morning hours of July 7. Columbia's crew performed orbital "high-fives" when told of the decision to extend the mission.

The shuttle's return to Earth will also mark the first time a live downlink of television images has been shown from the Shuttle during descent. The "Pilot Point of View" camera and perspective will be used for all future Columbia missions. The PPOV camera is mounted on the shuttle "dashboard" and provides for a clear, unobstructed view out the window identical to what the Shuttle's pilot will see during reentry.

QSLs

SAREX reception reports and QSL cards should be sent to: ARRL EAD, STS-78 QSL, 225 Main Street, Newington, CT 06111-1494. Include the following information in your QSL or report: STS-78, date, time in UTC, frequency and mode.

In addition, an SASE using a large, business-sized envelope must be included if you wish to receive a card. "The Net" in Anacortes, WA has generously volunteered to manage the cards for this mission.

Ham operator next on Mir Russian space station!

The next SAREX shuttle flight is just around the corner. STS-79 is one of several Phase One shuttle flights prior to the establishment of the International Space Station.

STS-74 (last November) delivered solar panels to Mir and a docking assembly to facilitate future dockings. STS-76 (late March) resupplied Mir and left NASA astronaut Shannon Lucid for a long duration stay on Mir. Shannon is not a U.S. licensed ham radio operator but has been heard operating under Mir's Russian ham call.

She will be returned to Earth on STS-79, scheduled for liftoff on August 1. Shannon will be replaced on Mir by veteran astronaut Colonel John Blaha (USAF, Retired) KC5TZQ, the third U.S. astronaut to stay long duration on the Mir space station. He will remain on Mir for four and a half months.

In December 1996, Blaha will return to earth on STS-81 and will be replaced by Jerry Linenger KC5HBR Mike Foale KB5UAC, follows in May 1997 aboard STS-84. (*Special thanks to WD8LAQ, NQ1R, WA5NOM & KA3HDO for editorial contributions.*)

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AMATEUR RADIO STATION CALL SIGNS

...sequentially issued as of the first of July 1996:

Radio District	Gp."A" Extra	Gp."B" Advan.	Gp."C" Tech/Gen	Gp."D" Novice
0 (*)	AB0CH	KI0DP	(***)	KB0WVW
1 (*)	AA1QS	KE1FL	N1XPG	KB1BYU
2 (*)	AB2BO	KG2HR	(***)	KB2ZKF
3 (*)	AA3OP	KE3WW	N3XTP	KB3BPK
4 (*)	AE4VY	KT4SR	(***)	KF4KJZ
5 (*)	AC5IX	KM5BR	(***)	KC5VDQ
6 (*)	AC6VZ	KQ6HP	(***)	KF6EHR
7 (*)	AB7RC	KJ7YN	(***)	KC7RSQ
8 (*)	AA8XM	KG8XY	(***)	KC8EHZ
9 (*)	AA9SS	KG9HD	(***)	KB9NZS
N. Mariana	KH0Z	AH0AW	KH0FA	WH0ABF
Guam	WH2V	AH2DB	KH2QH	WH2ANQ
Johnston Is.	AH3D	AH3AD	KH3AG	WH3AAG
Midway Is.		AH4AA	KH4AG	WH4AAH
Hawaii	(**)	AH6OQ	(***)	WH6DCE
Kure Is.			KH7AA	
Amer. Samoa	AH8O	AH8AH	KH8DA	WH8ABF
Wake W. Peale	AH9C	AH9AD	KH9AE	WH9AAI
Alaska	(**)	AL7QM	(***)	WL7CTW
Virgin Is.	WP2X	KP2CJ	NP2JI	WP2AIE
Puerto Rico	(**)	KP3AB	NP3CF	WP4NMF

* = All 1-by-2 & 2-by-1 call signs have been assigned.

** = All 2-by-1 call signs have been assigned.

*** = Group "C" (N-by-3) call signs have now run out in all but the 1st and 3rd call district.

Note: KP3/NP3 call signs now assigned in Puerto Rico.

[Source: FCC, Gettysburg, Pennsylvania]

NEW AND UPGRADING AMATEUR STATISTICS

FOR THE MONTH OF JUNE 1995 vs JUNE 1996

License Class	New Amateurs		Upgrading Amateurs	
	1995	1996	1995	1996
Novice	66	72	0	4
Technician	2507	1551	1	15
Tech Plus	303	146	425	317
General	130	18	463	294
Advanced	28	4	567	235
Extra Class	21	1	461	244
Club	<u>215</u>	<u>52</u>	<u>0</u>	<u>10</u>
Total:	3270	1844	1917	1119
Increase:	(43.6%)		(41.6%)	

INTERNATIONAL AGREEMENTS

From time to time we publish updated lists of countries that permit third party communications and those that allow reciprocal amateur radio operations.

The following countries have made the necessary arrangements with the United States to permit an amateur station regulated by the FCC to exchange messages for a third party with amateur stations in:

Antigua and Barbuda, Argentina, Australia, Belize, Bolivia, Bosnia-Herzegovina, Brazil, Canada, Chile, Colombia, Federal Islamic Republic of Comoros, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, The Gambia, Ghana, Grenada, Guatemala, Guyana, Haiti, Honduras, Israel, Jamaica, Jordan, Liberia, Republic of the Marshall Islands, Mexico, Federated States of Micronesia, Nicaragua, Panama, Paraguay, Peru, Philippines, St. Christopher and Nevis, St. Lucia, St. Vincent and the Grenadines, Sierra Leone, Swaziland, Trinidad and Tobago, United Kingdom (special event stations with call sign prefix GB followed by a number other than 3), Uruguay, and Venezuela. The United Nations also has arrangements with the United States to permit an amateur station regulated by the FCC to exchange messages for a third party with amateur stations 4U1ITU in Geneva, Switzerland, and 4U1VIC in Vienna, Austria.

Amateur stations regulated by the FCC shall not transmit messages for a third party to any amateur station located in countries not listed above. This prohibition does not apply to a message for any third party who is eligible to be the control operator of the station.

RECIPROCAL OPERATING ARRANGEMENTS

The United States has made arrangements with the following countries to grant a reciprocal operating permit to their citizens who hold amateur service licenses issued by the country of citizenship:

Antigua and Barbuda, Argentina, Australia, Austria, The Bahamas, Barbados, Belgium, Belize, Bolivia, Bosnia-Herzegovina, Botswana, Brazil, Canada (Canadian amateur service stations do not need a reciprocal operating permit while operating in the United States), Chile, Colombia, Costa Rica, Croatia, Cyprus, Denmark (including Greenland), Dominica, Dominican Republic, Ecuador, El Salvador, Federated States of Micronesia, Fiji, Finland, France [including French Guiana, French Polynesia (Gambier, Marquesas, Society, and Tubuai Islands and Tuamotu Archipelago), Guadeloupe, Ile Amsterdam, Ile Saint-Paul, Iles Crozet, Iles Kerguelen, Martinique, New Caledonia, Reunion, Saint Pierre and Miquelon, and Wallis and Futuna Islands], Federal Republic of Germany, Greece, Grenada, Guatemala, Guyana, Haiti, Honduras, Hong Kong, Iceland, India, Indonesia, Republic of Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kiribati, Kuwait, Liberia, Luxembourg, Macedonia, Republic of the Marshall Islands, Mexico, Monaco, Netherlands, Netherlands Antilles, New Zealand, Nicaragua, Norway, Panama, Paraguay, Papua New Guinea, Peru, Philippines, Portugal, Seychelles, Sierra Leone, Solomon Islands, Republic of South Africa, Spain, St. Lucia, St. Vincent and the Grenadines, Surinam, Sweden, Switzerland, Thailand, Trinidad and Tobago, Tuvalu, United Kingdom [including Bermuda, British Virgin Islands, Cayman Islands, Channel Islands (including Guernsey and Jersey), Falkland Islands (including South Georgia Islands and South Sandwich Islands), Great Britain, Gibraltar, Hong Kong, Isle of Man, Montserrat, Northern Ireland, Saint Helena (including Ascension Island, Gough Island, and Tristan Da Cunha Island), and Turks and Caicos Islands], Uruguay, and Venezuela.

EMERGING TECHNOLOGY

- **It appears that American strong encryption might be used overseas after all.** The U.S. Government currently only allows weak codes to be exported so the FBI can ward off hacker and terrorist attacks. One of Japan's largest credit card companies is setting up an Internet Shopping Mall using SET (Secure Electronic Transactions) being developed by VISA, MasterCard, Netscape and Microsoft. Supposedly Microsoft has interceded with U.S. authorities on behalf of JCB Co., Japan. The Clinton administration is considering shifting the export-licensing process for encrypted software from the U.S. National Security Agency and FBI ...to the Commerce Department.

- **More tiny rooftop DBS dishes are on the way. Get ready for a big DirecTV push by AT&T!** They will offer free equipment financing and programming! The idea is to lure more of the nation's 60 million cable TV subscribers to direct broadcast satellites. AT&T will offer \$500 DBS equipment packages to its 17 million Universal credit card holders without interest charges - and free pay-per-view movies for a year. There are currently 3 million DBS subscribers. AT&T wants to add another million by year end. Eventually you'll be able to pay for DirecTV on your phone bill.

- Cost of fax messages (like telephone calls) sent from PCS are due to nosedive! **Fax over the Internet at 2¢ a minute** will be possible beginning next month using "FaxStorm," a software product from NetCentric, Inc., of Cambridge, MA.

And FaxSav of Edison, NJ has a product (called "fax mailer") that lets users send domestic and international Internet e-mail with low cost fax delivery. Free download software is available from <http://www.faxsav.com>

Objective is to save on long distance telephone rates which run from 15¢ to 30¢ a minute ...and higher for international faxes.

- **The "Good News" is that great interactive broadcast video technology is about to debut. The "Bad News" is that hardly anyone will be able to use it!** At least at first.

That's the dilemma facing NBC and the 1996 Summer Olympics due to start

on July 19 and run to August 4. NBC (using "intercast" technology) will embed HTML code in the VBI (vertical-blanking interval), a little used portion of the TV signal. Intercast-equipped computers can watch the broadcast video portion of the signal while simultaneously viewing selected web pages sent from the Olympics which contain background information, graphics and statistics. NBC also has a website at <http://www.olympic.nbc.com>

Intel chips (which add \$100-\$200 to the computer cost) make TV reception possible on Pentium PCS. Compaq Computer has an Intercast-equipped PC-TV available - but extremely few are in the hands of the consumer! That is destined to change as major PC makers add the feature to their motherboards. Intel will use TV ad spots during the Olympics to introduce the public to Intercasting.

- **CNN is also getting into the intercast business.** You won't have to wait for a newscaster to get to a specific story. A digest of breaking news will appear in a PC television window. Clicking on the headline brings up the full story.

And NBC-TV is readying a weekly mystery series which will let viewers solve a crime using an intercast-delivered virtual crime lab. ABC and CBS will begin intercasting next year.

- **The "official" 1996 Summer Olympics website, however, is a splashy "ad-free" offering from IBM at <http://www.atlanta.olympic.org>**

They are going all out to make a favorable impression ...event results will be made available almost instantaneously! IBM says the site will be the largest ever with 20,000 images and pages by the time it is over. They have a massive server ready to handle 1 million hits/hour!

- Two new Microsoft offerings are just now coming online. **"Slate" an Internet webzine** run by Michael Kinsley is off and running. And **MSNBC News launches July 15** on both cable-TV and the Internet. (<http://www.msnbc.com>) The "America's Talking" cable network with its 22 million homes is being converted to MSNBC which will compete with CNN's 67.2 million U.S. viewers. And Fox Television is also getting into the cable-TV "all-news" channel business.

Be sure that you are using the new browser versions when accessing Slate and MSNBC. Older editions (such as Netscape 1.0) can't understand the new

commands and features!

- **Microsoft's CEO Bill Gates is still the world's richest private citizen.** In its annual rankings, Forbes magazine said Gates worth increased from \$12.9 to \$18 billion last year. That's \$14 million a day! To give you an idea of just how much that is: (assuming no interest on the declining balance) with that fortune you could spend \$1 million a day for 50 years!

- **American Sky Broadcasting and SkyMCI are on the way ...both will satellite broadcast to U.S. consumers and business.** Fox and MCI shelled out \$683 million at an FCC auction last year for the last U.S. orbital slot covering all of the United States. They are spending another \$10 million to build an advanced broadcast uplink center near Phoenix.

MCI is protesting to the FCC that cable-TV giant, Tele-Communications, Inc., plans to escape paying U.S. auction and regulatory fees by beaming DBS television programming to the U.S. from Canadian-authorized orbits. Most of the TV programs watched by Canadians come from the U.S. and the Clinton White House believes that it would "raise serious foreign, trade or competition policy issues" if the FCC rules that TCI can't use the Canadian slots. The administration has asked the agency to hold off.

- Television broadcasters are moving into the digital video, Internet access and local telephone and data business.

Zenith has successfully tested wireless cable TV modems in Lakeland, FL that deliver two-way data and the Internet at 500 KB/sec ...twenty times faster than by telephone.

Yahoo (the search engine people) is readying an Internet delivered online service for local TV markets.

It will contain local news, entertainment information, phone listings, interactive maps and free "bulletin board" communication among viewers! It is already being tested by KPIX-TV in San Francisco.

COMPUTER INFO

- The *Wall Street Journal* says that **half of the nation's corporate CEO's are computer illiterate!** Most do not know how to type ...or even have a PC on their desk.

- **Interesting quote from Oracle CEO, Larry Ellison:** "There will be more NCs sold by the turn of the century than PCS. Oracle is forming a new company called "Network Computer, Inc."
- **Apple Computer has begun shipping a new operating system** (which includes Internet access) developed jointly with IBM. Cost is \$99 for the new Version 7.5.3. (Upgrade version: \$49.) It might be too late. Computer sellers report sales of Apple's flagship Macintosh PCS have dropped 30% to 50% from a year ago. America's favorite computer is now Packard-Bell with a 15.2% market share. Second place: Compaq at 12.3%. Packard-Bell is now primarily owned by Japan's NEC Corp.

- **You can kiss toll-free 800 number "Help" lines "Goodbye!"** Thousands of people on simultaneous "hold" has simply gotten too expensive for hardware and software companies. Help desks receive some 200 million calls annually at an average cost of \$20.

As a general rule, you will have to call a long distance toll number during the first 30 to 90 days of product ownership. And you can expect up to a 20 minute wait on your nickel. After that, you'll end calling a 900 number (at up to \$3 per minute) for advice.

Microsoft has a \$195 software assistance service which covers ten calls in a year (or 35 calls for \$395.) Business opportunity! Start an independent software support company. A new wrinkle on the horizon is "self-help" support software such as "System Wizard."

INTERNET AND ONLINE

- **Problems at America On-Line?** The Federal Trade Commission is on AOL's case for questionable billing practices. It seems that the consumer online service is "rounding up"- that is charging for a full minute when any portion of a minute is used and not fully advising subscribers when the 'clock is running.' AOL's stock price has tumbled 10%, growth has slowed and customer "churn" increased to 50%! (For every two new subscribers, one leaves.) It costs AOL \$50 to attract a single customer. And their new highly regarded president (hired away from Fedex) quit "for per-

sonal reasons" after only four months on the job. And CEO Steve Case sold more than 200,000 of his AOL shares in May.

- **Graphics, telephone calls and video applications are slowing down the Internet!** MCI expects Internet usage to double again within six months! Ten thousand new users come online every day! An answer is to get data pushed along the Net faster. MCI is spending \$60 million to quadruple the speed of its Internet backbone network and to add 13,000 high-speed switch ports by year end. MCI expects their Internet business will skyrocket from \$100 million to \$2 billion within three years!

- **American Demographics, a Dow Jones publication commissioned a recent Internet users survey.** The results were published in the July 1996 issue. One thousand respondents qualified for the in-depth study by having used the Internet in the past for other than e-mail. One surprise was that it isn't the under 30 year olds that dominate the Net. Fifty-three percent of Internet surfers are between 30 and 50! While adults 50 and older make up 35% of the population, they only account for 13% of all Internet users.

- **Joint Venture Department! Time Warner, Inc., Softbank and Intel Corp. are teaming up to bring out "The Palace"** ...a "virtual animated, graphical world" shared among computers on the Internet. Users can choose cartoon figures (called "avatars") to represent themselves while online.

- **Sharp Corp. will introduce a television set next year with a built in browser called NeTV.** Just enter your dialing codes and you can surf through the cable-TV wiring or telephone lines.

WASHINGTON WHISPERS

- **Junk FAX messages and auto-dialed telephone solicitations are regulated by the FCC!** But few people seem to know about it. Here is the low-down. The *Telephone Consumer Protection Act of 1991* (TCPA) makes it illegal
1) to initiate prerecorded commercial messages to residential telephone lines without prior express consent of the called party, or;

2) to send unsolicited commercial advertisements to a telephone facsimile machine. (E-mail messages to computers are not included.)

Firms that have established a business relationship with the person called - and tax-exempt non-profit organizations are exempt. An "established business relationship" means a prior voluntary two-way communication exchange. These rules are contained in Subpart "L", Part 64, *Restrictions on Telephone Solicitation*.

The rules state that all solicitations must contain the identity and telephone number of the business making the call.

Telephone solicitors must maintain a do-not-call list, have a written policy for do-not-call list maintenance and a personnel training program on the existence and use of the do-not-call list. Telephone solicitors may not call residences between 9 p.m. and 8:00 a.m. The TCPA was adopted by the FCC on Sep. 17, 1992.

- **Scary thought!** The Internet has gotten so big ..and so important that CIA Director John Deutch is fearful! He told Congress that **we can expect "cyber attacks" and "information warfare"** which will disrupt our daily lives and jeopardize our national and economic economy. Computer networks control just about everything: "The electron in my judgement, is the ultimate precision-guided munition," he said.

- **The FCC has dropped its pilot program aimed at privatizing RF interference complaint handling.** Reason: The public does not feel that they should have to spend money to eliminate interference. Many complaints involved unlicensed (illegal) high-power stations. Consumers complaining about RFI problems believe that it is the government's responsibility to do something about it.

- **Some telephone companies are not happy with the FCC's decision not to regulate Internet phone.** The FCC is considering a petition filed by an association of long-distance providers. "We shouldn't be looking for ways to subject new technologies to old rules," said FCC Chairman Reed Hundt. "Instead, we should be trying to fix the old rules so that if those new technologies really are better, they will flourish in the marketplace. ...I am strongly inclined to believe that the right answer at this time is not to place restrictions on software providers, or to subject Internet

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telephony to the same rules that apply to conventional circuit-switched carriers."

Internet telephone technology allows users with special software to make long-distance and international telephone calls for the price of an Internet connection.

The two most popular Internet voice products are VocalTec's "InternetPhone" and Quarterdeck's "WebTalk." But they will soon have some very formidable competition! Intel, Microsoft and Netscape are all jumping on the Internet voice bandwagon.

- The wireless revolution hits home! **Local city governments are unhappy with the proliferation of and federal rules supporting cellular towers and satellite dishes.** They believe they should be regulated on a local basis. Activists say the antennas present health risks and are eyesores which devalue property. Congress has banned local governments from blocking towers on safety grounds. And the FCC preempted local restrictions on satellite dishes of one meter and less. The *National Conference of Mayors* adopted a resolution last month to begin raising money to support legal challenges to these regulations.

AMATEUR RADIO

- According to the June 1996 issue of *Morsum Magnificat*, a Morse code enthusiast's magazine published in the UK, effective July 1st - Denmark will reduce the number of amateur radio license classes from five to three. And the new top-of-the-line license permitting access to the HF bands will require a Morse examination of only 5 wpm.

- *Morsum Magnificat* is not happy with the IARU's 20-page Discussion Paper on the *Future of the Amateur Services Committee* (FASC.)

The Committee says that "it is unrealistic to expect that Article S25 of the International Radio Regulations, having been placed on the agenda for WRC-99, will again be reviewed by another conference in the foreseeable future. Any changes to the amateur radio regulations (Article S25) that may be desirable in the next decade or two, it says, must be considered now."

"On that basis, the Committee has concluded that S25.5 (previously RR 2735) should be removed as a treaty

obligation of administrations."

On the other hand, the 1994 IARU CW Ad Hoc Committee concluded that "...at the present time, the Morse code is the only practical means of ensuring that all amateur stations possess the capability ...for intercommunication without regard to equipment or language barriers [and] to ensure the orderly shared use of a limited resource."

Morsum Magnificat editorialized that "...all the Committee seems to be saying about the Morse test is: 'Forget what the other IARU Committee said two years ago. WRC-99 offers the only chance we will have for a long time - therefore it's only logical to get rid of the international Morse test requirement while we can.'"

- **The high level ARRL Ad Hoc Repeater Committee meeting took place at the Dallas/Ft. Worth Airport Marriott on June 22nd.** In attendance were ARRL President Rod Stafford KB6ZV, VP's Hugh Turnbull W3ABC, Steve Mendelsohn WA2DHF, Dave Sumner K1ZZ, Legal Counsel Chris Imlay N3AKD and Committee Chairman Marshall Quiat.

No word yet as to whether the proposals of Repeater Coordinator's Committee are acceptable to the League. Basically, repeater coordinators want their newly established National Frequency Coordinating Committee (NFCC) to give guidance to - and operate independently of - the ARRL in repeater coordination matters. The coordinator's want the League's function to be essentially clerical in nature. The ARRL would support the NFCC until it could become self-funding.

- The following June 20th Press Release from Tandy/Radio Shack will be of interest to ham radio operators:

RadioShack Petitions, Wins FCC Approval for Family Radio Service

Ft. Worth, Texas - A RadioShack petition to establish a new unlicensed two-way radio service known as the Family Radio Service (FRS) was recently approved by the Federal Communications Commission. The petition was filed with the FCC by RadioShack in July 1994. FRS opens new, higher frequencies to individuals that should permit less congested, FM clarity "walkie-talkie" type communications.

"The Family Radio Service proposed by RadioShack is in response to the grow-

ing public demand for an affordable and convenient means of direct communication between individuals and families. The FCC's approval has made this possible," said RadioShack President Leonard Roberts.

The Family Radio Service -- What is it?

The Family Radio Service is a license-free, two-way, short-range (1-2 miles line-of-sight) voice radio service. Whether on the road or on neighborhood patrol, FRS will allow individuals and families to maintain close contact without incurring the fees of other mobile radio services.

Why Do We Need the Family Radio Service?

The Family Radio Service will serve the day-to-day as well as emergency communications needs of families, friends and public service organizations. It will fill a market void by providing consumers with convenient, high-quality, short-range communication capabilities not met by existing radio services. It will require only a modest initial investment.

Parents will have an extra measure of security by using FRS to monitor their children at play. Families and friends will be able to maintain close contact at sporting events, shopping malls, or parks.

FRS will give public safety groups such as *Neighborhood Watch* and *Radio Emergency Associated Communications Teams* (REACT) a low-cost communications tool to combat crime and promote public safety.

What Kind of Equipment Does Family Radio Service Use?

The Family Radio Service will use lightweight, palm-size half-watt transceivers with a short antenna - smaller and more convenient than a handheld CB walkie-talkie unit. The radios will operate in the UHF frequency [14 simplex channels at 462/467 MHz] which is generally free of unwanted interference common in the overcrowded citizens band frequencies. FRS radios will provide service similar to "business band" without the costly and time-consuming licensing process.

The cost of products that will operate on the Family Radio Service are expected to range from \$100 to \$200. RadioShack expects to introduce its first FRS radio this fall with a full range of FRS products available in early 1997 in all 6,800 RadioShack stores and dealers nationwide. <http://www.Tandy.com.rs>

AMATEUR COMMUNITY AWAITS OPENING OF GATE 2 OF VANITY CALL SIGN SYSTEM.

No other amateur radio program has been as eagerly awaited by the ham operator community as the one that will allow you to select a call sign of your choice. Obtaining preferred station call signs seems to be as important to ham operators as obtaining more radio frequencies! The *Vanity Call Sign System* is being implemented by a series of starting gates. The first gate opened May 31st and the second (actually Gate 1A) will open July 22. These permit former holders, close relatives and ham clubs to reclaim previously held call signs and the call signs of deceased family and club members.

But it is Gate 2, 3 and 4 that the amateur community is waiting for! These gates provide the opportunity for Extra Class, Advanced and all other license classes to obtain a completely new "Vanity" call sign.

We expect Gate 2 to open in about 60 days. Gate 2 permits any of 75,000 Extra Class amateurs to select an available call sign. Most will want the preferential 1-by-2 and 2-by-1 format call signs. And there are only about 40,000 available ...not enough to go around.

Our mailbox has been running over with questions about the Vanity call sign program. We thought that we would cover some of the more general interest questions. It might help you to obtain the call sign you want!

Can I submit my application by overnight courier so that it arrives the morning the gate opens?

Yes. But do NOT send to the address shown in the FCC Public Notice. Federal Express, UPS-Red Label, Airborne and other overnight delivery services can not deliver to a post office box. Send your application package to: Federal Communications Commission

c/o Mellon Bank
525 William Penn Way
27th Floor, Room 153-2713
Pittsburgh, PA 15259

to the: "Attention: Wholesale Lockbox Shift Supervisor." Do not try to call them since this office has no telephone and their Customer Service Department is totally unable to answer any questions about the Vanity Call Sign System. We have already talked to the bank and they have absolutely no idea how the program works. All they do is receive feeable applications, deposit the check to the U.S. treasury, date stamp and forward the Form 610-V applications to the FCC in Gettysburg, PA for handling.

In the future, you - or a service that represents you - may be able to electronically submit your FCC Form 610-V application for a Vanity call sign directly to the FCC with payment by credit card. They are already looking into ways as to how this might be accomplished.

Can I hand deliver my Vanity Call Sign application?

Yes. The bank's feeable applications department is open 24 hours a day, 7 days a week. Form 610-V applications are not accepted prior to the opening of the appropriate gate. Be aware that any applications received or delivered early are

returned to the sender.

Why must I wait two years after expiration to obtain a specific call sign?

A person whose license has expired has a two year grace period in which to apply for renewal without losing his/her call sign. Three exceptions "to the two year rule" involve deceased amateurs. Close family relatives and ham clubs may apply for the call sign of a deceased member without waiting two years after death. The call sign of a deceased amateur is available to the *Vanity Call Sign System* two years after death and not necessarily two years after license expiration.

My friend just changed his call sign. Can I get his old one?

No. A call sign is "vacated" (canceled) when its previous owner has been assigned a Vanity call sign. Initially the FCC proposed that a vacated call would be immediately available for reassignment. The ARRL, however, felt that immediate reassignment of vacated call signs would be confusing and could result in "trafficking in call signs."

A vacated call sign is therefore not assignable for a two-year waiting period. The two-year interval also makes the handling of vacated call signs consistent with the assignability of a deceased person's station call sign or a licensee's expired station call sign.

What about preferred call signs for amateur radio clubs?

There are basically four different types of club "Vanity" call signs.

- 1.) The first is for clubs that want to reclaim a previously held club call sign. This can be accomplished under Gate 1 which opened May 31st. You do not have to wait two years and the trustee does not have to hold a class of operator license required for the Group (A, B, C or D) for the call sign requested.
- 2.) Family members have first choice of a silent key's call sign under Gate 1. Should no family member desire the call, the deceased amateur's ham club gets next choice under Gate 1A which opened July 22. Club station trustees do not have to wait 2 years following death of a club member but they must have the written consent of a close family relative. This letter is retained by the club and not sent to the FCC unless requested. The club must have held a club call sign on March 25, 1995 to be eligible under Gate 1A. Clubs must insure that the deceased club member's call sign has been canceled from the FCC amateur database before applying. A call sign still in the FCC's Amateur database can not be re-assigned.
- 3.) Gate 2 allows clubs wishing to obtain the call sign of a silent key member without written consent of a relative providing the trustee of the club station is an Extra Class licensee. Advanced class trustees may apply under Gate 3 ...all other classes under Gate 4. The deceased member's call sign is not available for two years following death or license expiration ...whichever is sooner. This policy allows relatives and ham club's with family permission the first opportunity to obtain the call sign. And again, the deceased member's call sign must be canceled before applying
- 4.) Preferred call signs for existing clubs licensed after March 25, 1995 may be obtained by the trustee according to

his/her call sign Group. Extra Class trustees may apply under Gate 2, Advanced Class trustees under Gate 3 and all others: Gate 4. RACES and military recreation stations are not eligible for a vanity call sign.

May I form a radio club to obtain a preferred call sign?

Yes. New radio clubs may be formed by any two or more licensed amateurs ...even members of the same family. This may change, however, since the ARRL wants the number of members constituting a club to be raised to four "...to ensure legitimacy and to prevent fraud." The FCC has not yet taken action on this request. The current rule Sec. 97.5(b)(2) requires clubs "...to be composed of at least two persons, ...have a name, a document of organization, management and a primary purpose devoted to amateur service activities..." New clubs may apply for a preferred call sign under Gate 2, 3 or 4 depending on the call sign Group of the trustee.

An initial club call sign must be assigned under the *Sequential Call Sign System* before a Vanity call sign may be requested. According to the rules, initial call signs for amateur radio club stations may only be assigned Group "D" (2-by-3) formats. This is true, even if the trustee is an Extra Class licensee.

What station call signs are not available to the Vanity Call Sign System?

You do not have to reside or have a mailing address in a specific call sign area in order to select a call sign with from that region. But there is one exception. Due to limited availability, amateurs with mailing addresses in the 48 continental U.S. states may not apply for call sign prefixes allocated to Hawaii, the U.S. South Pacific Islands, Alaska, Puerto Rico, U.S. Virgin Islands or other Caribbean possessions. These excluded prefixes are: AH, AL, KH, KL, KP, NH, NL, NP, WH, WL and WP. This limitation does not apply to applicants seeking the call sign of a deceased relative.

Certain "Q-signal" and other suffixes (such as W5QST and W5SOS) are not issued. Letter combinations normally considered in poor taste may be issued. The FCC Rules (contained in Sec. 2.302) precludes 1-by-1 and 2-by-3 format amateur call signs being assigned with the letter "X" following the numeral. These are assigned to non-amateur experimental stations.

Can I obtain the amateur call sign AA1AAA?

No. The FCC rules (Sec. 97.19(c)) specify that only call signs allocated under the *Sequential Call Sign System* are available to the *Vanity Call Sign System*. The *Sequential Call Sign System* was initially spelled out on March 24, 1978 and later released to the public in the form of Fact Sheets. The most recent is PR-5000, No. 206, Feb. 1995. While AA-AL-by-1 and AA-AL-by-2 are part of the *Sequential Call Sign System*. AA-AL-by-3 formats are not. Strangely, however, AA-AL-by-3 format has been allocated by the FCC (see Sec. 2.302) to the Amateur Service but were never made part of the sequential system. So there are an additional 2 million 2-by-3 amateur call signs held in reserve!

When will Gate 2, 3 and 4 open?

We don't know. But best guess is around September 1st

for Gate 2 when it is anticipated that thousands of vanity call sign applications will be submitted. We believe that ten of fifteen percent of all Extra Class amateurs will want a Vanity call sign. Most requests will go through the system automatically. But hundreds will not and applications from amateurs who do not follow instructions will hit the WIPs (Work-in-Progress) error list. These rejected Form 610-V's must be handled manually. And since the FCC has not been authorized an increase in personnel to handle the vanity call sign program, it is anybody's guess as to when they will be able to get to them.

The bottom line is that rejected applications essentially means that you go to the end of the line. Gate 3 will not open until the majority of Gate 2 applications have been handled. There is no telling when that might be. Best guess? October or November ...with Gate 4 by year end. Again this is merely a guess on our part.

Legibility is also very important. If the information on your application is not readable, you could experience a delay in processing, lose the opportunity to obtain a requested call sign or even obtain a call sign different from what you want.

Where can I get the FCC Vanity Call Sign Application Form 610-V?

It is available from several sources including from FCC's Internet website at <http://www.fcc.gov/Forms/Form610V> or <ftp://ftp.fcc.gov/pub/Forms/Form610V/>, or by fax from: 202-418-0177. Ask for Form 006108. You can also order it from the FCC Forms Distribution Center at 800-418-3676. We (The W5YI Group, P.O. Box 565101, Dallas, TX 75356, Tel. 817-461-6443) also have Form 610-V available at no cost. Include a large self-addressed stamped envelope. Photocopies and FAX copies of the Form 610-V can also be used.

Can I obtain a call sign of an amateur who died but whose call sign is still listed as active?

A call sign MUST be deleted from the active licensee database PRIOR to submitting a request. This is because the vanity call sign software at the FCC will NOT select a call sign that is still shown in the active amateur service database. It will go on to the next one on your list ...even if you attach evidence to the FCC Form 610-V that the licensee is deceased. Canceling a specific call sign and applying for that same call sign are two separate FCC processing operations which can NOT be handled at the same time.

How can I get a deceased amateur's call sign out of the FCC's active amateur database?

This is usually accomplished by a relative of the deceased sending a *Request for Cancellation of License* letter to the FCC (1270 Fairfield Road, Gettysburg, PA 17325) accompanied a copy of a newspaper obituary or a death certificate. There is no special form for this purpose ...just an informal letter. This may also be handled by an individual who is not a relative. Notifications in ham club newsletters or amateur radio magazines (such as QST's *Silent Keys* column) will NOT suffice. The notification MUST be a copy of the death certificate or a obituary from a newspaper. No other way is acceptable. The call sign is canceled and becomes available about two weeks after receipt of the letter and documentation.

I am a No-Code Technician. How can I obtain my deceased father's Extra Class call sign?

You will have to upgrade to the Extra Class if your father has a Group "A" call sign and hope that another amateur does not obtain the call sign first. Originally, the *FCC Order* adopted December 23, 1994, provided that close family relatives and club station license trustees would not have to conform to the rule that requires vanity call signs be selected from a Group coinciding with the license class of the requester.

But a *Petition for Reconsideration* was filed and the FCC changed their position. Now all "...vanity call signs requested by an applicant must be selected from the group of call signs corresponding to the same or lower class of operator license held by the applicant as designated in the sequential call sign system." (Sec. 97.19(d)). A No-Code Technician qualifies only for a Group C (1-by-3 format) or Group D (2-by-3) - but not for a Group "A" or "B" call sign.

Why does it cost \$30.00 for a Vanity Call Sign? Can I pay by credit card?

The fee initially set by Congress was \$7.00 per year collected for the length of grant of license (10 years) or \$70. The FCC changed it to \$30.00 to be in line with their actual costs based on anticipated call sign request projections. This fee will be adjusted later if the projections prove inaccurate. The ARRL wanted a one time \$150 administrative processing fee rather than a recurring processing expense. The League felt the one-time fee concept would also greatly reduce the Commission's fee collection workload since they would not have to deal with additional fee collection at license renewal time. The \$30.00 check (payable to the FCC) must be stapled to the front of the FCC Form 610-V. It need not be a money order or cashier's check. A personal check will do. You may pay by credit card (VISA or MasterCard only) in which case you must include an FCC Form 159 *Remittance Advice* along with your Form 610-V.

What happens if I choose all 1-by-2 call signs and none are available?

The rules provide for choosing a list of up to 25 call signs in order of preference. But you do not have to select 25. You can choose only one if you wish. The first assignable call sign from the applicant's list will be shown on the license grant. If none of those call signs are assignable, the applicant will retain his/her previous call sign and you will eventually get your \$30.00 fee back. But we predict it will take a while! Government refunds from the U.S. treasury are certain to be slow in arriving.

Can I retire my call sign so no one else can obtain it after I pass on?

There is no provision in the rules for "retiring" a call sign. But a family member could become licensed and obtain your call sign, never use it and renew it continually. Your ham club could also obtain the call sign *in memoriam* and then "retire" it. There is nothing in the rules to prevent amateur radio clubs from obtaining multiple club call signs in memory of deceased members. Sec. 97.19(c)(3) requires that a close relative authorize the transfer to the ham club in writing.

We believe that a ham club in existence before March

25, 1995 could have as one of its projects the retiring of amateur radio call signs with perpetual upkeep (continual renewal.) Neither close relatives or ham clubs have to wait the two year period at which time the call sign would become available to the general ham community.

How can I find out which call signs are still available?

We have carefully studied the *Sequential and Vanity Call Sign System* and believe we are an expert on exactly how they work! There is more to them than first meets the eye! It is just not a case of having a list of the active amateur call signs and picking one not assigned. There are many variables to deal with ...such as excluded (unassignable) call signs and those in the 2-year "unavailable" time period. And call signs are continually being assigned, old call signs being reclaimed and previous call signs being transferred to the "vacated" list.

Amateurs who upgrade and change their call sign will not have their previous call sign available for reassignment for 2 years. This "unavailable call sign list" includes call signs that have been surrendered, revoked, set aside, canceled, voided and vacated.

There are currently over 700,000 U.S. amateurs with station call signs. But there are far more call signs "outstanding" (for one reason or another) than that! More than half of all currently assigned station call signs are from the Group "D" (2-by-3) format type.

When the FCC began thinking about implementing the *Vanity Call Sign System*, we began developing software that could accurately determine which call signs were available for assignment. The result is a custom-made computer disk that lists every available "preferred" station call sign available to a specific call sign "Group" in a specific call sign region.

Basically our software subtracts the "unavailable" station call signs from the "available." The "unavailable" include current (active) station call signs and those in the 2-year "moratorium". The "available" are basically those included in the *Sequential Call Sign System* less any that can't be assigned for one reason or another.

The "unavailable" list is updated daily right from the FCC's amateur service databases. This is necessary since the FCC is assigning and withdrawing call signs daily. The resulting custom-made computer disk shows every possible four and five character station call sign available to a specific license class in a certain geographic area on a specific day.

Most amateurs consider four character (1-by-2 and 2-by-1 format) and five character (1-by-3 and 2-by-2) to be preferred call signs. There are approximately 1.2 million of them spread over ten call sign regions... more than enough for every U.S. licensed ham radio operator. (There are some 13 million available 2-by-3 format call signs, such as KA1AAA.)

We have already shipped hundreds of the *Vanity Call Sign availability disk*. Call 1-800-669-9594 and give us your license class (so that we may determine your call sign group) and your region and we will rush one right out to you. Cost is \$15.95 for a custom-made computer disk covering all 1-by-2, 2-by-1, 2-by-2 and 1-by-3 call signs available in a single region. Additional regions ordered at the same time are half price (\$7.95). The ASCII disk can be read with DOS or any word processor. (VISA/MasterCard/Discover accepted.)

AMATEURS LOCATE POLICE RADIO JAMMER

The 1996 SEA-PAC ham convention was held last month in Seaside, Oregon. The excitement started while amateurs attending the hamfest from the Phantom's Amateur Radio Group were enjoying their annual PARG bonfire down on the beach. One of them (Mike Scott, KB7YZS) was monitoring the local Seaside Police Department when he heard someone cursing and yelling. At first he thought it was coming from the ham bands but it was on the police channel! The transmissions indicated that they were from a group of people ...at least two were females.

Four of the hams in the group (KB7YZS, KB7YZR, N7XMD and AA7UP) just happened to be members of the PARG Interference Committee so they activated their direction finding operations and went to work. The interference was tracked to the nearby Shilo Inn. After about five minutes, they observed a group of people on a third floor motel balcony which more or less matched the transmissions. One of them picked up a hand-held transceiver and the police frequency erupted in profanity.

A PARG member saw a Seaside Police patrol car in the area and asked the officer if he was looking for people causing interference to them. He replied, "Yes!" Meanwhile the three other PARG members were on their way to the third floor when they saw people from the suspected room running down the stairs and away from the motel. The police took a report from PARG ...including the exact location of the motel room.

About two hours later the interference started up again. The Seaside police officer went directly to the room the PARG interference team had pointed out and caught the person in the act of jamming the police channel. The culprit turned out to be a ham, Bobby Lee Aguero, KE6VNU of Rocklin, California who was in Oregon to attend the Seaside convention.

Information indicated he was released from jail only a short time before. The charge according to PARG president Justin Bousquet AB7NG, was malicious interference to the local police in his area. "We understand that he caused a great deal of interference to the Sacramento County and Roseville emergency service communications and often identified himself as 'The Phantom Jammer.' We were told the Seaside Police charged him with 'interference to a police officer in line of duties.'"

AB7NG said "It was unfortunate that he used that alias since he has absolutely no connection to the Phantom's Amateur Radio Group which located him and turned the necessary information over to the Seaside Police which led to his arrest."

This was the second year in a row that PARG provided public service during the SEA-PAC Convention. Last year several PARG members apprehended a purse thief after a brief foot race. (Thanks KA0SSF)

FCC TO INITIATE ELECTRONIC COMMENT FILING

The FCC announced on June 24th that it plans to allow electronic filing of formal comments in rulemaking proceedings and free online access to those comments. The public notice begins the process of revising outdated rules and clearing the way for the expanded use of new technologies at the FCC.

The Commission announced this rulemaking at an open forum on using the Internet to access information from and communicate with the FCC. The challenge of meeting the workload and deadlines of the Telecommunications Act of 1996 has prompted the Commission to seek ways to make it easier for the public to file and review comments.

In several major proceedings, parties have been invited to file diskettes along with their comments, or to file informal comments via electronic mail. "The upcoming proceeding is designed to realize the full potential of electronic filing to aid the Commission in the challenging task of implementing the 1996 Act," the FCC said.

In February, the Commission issued a Notice of Inquiry (PP 96-17) in which it asked how computer technology and the Internet could be used to improve FCC procedures. In response, the vast majority of commenters advocated expanded use of electronic filing. The Commission's rules currently require formal comments to be filed on paper, so a rulemaking proceeding will be necessary to allow comments filed via electronic mail or diskette to be treated in the same manner as paper.

Electronic filing of comments will help streamline FCC procedures so that materials can be made available more quickly and more cheaply, and will give members of the public a fuller opportunity to participate in the actions of the Commission. This effort is also consistent with recent and pending Congressional initiatives that require government agencies to expand the use of electronic filing. The use of electronic filing demonstrates the FCC's commitment to "reinventing government" and using technology to better serve the American people.

Commission Chairman Reed E. Hundt said "Our goal in this effort is to make it easier for the public to participate in the historic task of implementing the Telecommunications Act of 1996, and to contribute to other important FCC proceedings. Electronic filing will also allow us to post comments on the FCC Internet site shortly after they are filed, so that individuals and organizations -- especially those outside of Washington -- can obtain comments quickly and at no charge."

"This proceeding will allow us to eliminate outdated restrictions, and to use the Internet to better serve the public. As the agency that oversees the communications industry, we ought to do everything we can to take advantage of the new communications revolution that the Internet represents."