

# Calendar for July 2000

July 5, at 7:30 P.M. in the evening, the Sonoma County Radio Amateurs Club will be having their monthly membership meeting; at Aglient Technologies (formerly Hewlett Packard), which is located at 1400 Fountain Grove Parkway in Santa Rosa.

July 12th, at 6:00 o'clock P.M. in the afternoon, The Sonoma County Radio Amateurs Club will be having their Monthly Board of Directors meeting at Masterstouch Mortgage located at 8979 Conde Lane in Windsor. All SCRA members are welcome to attend.

Sonoma County Radio Amateurs, Inc.  
PO Box 116  
Santa Rosa CA 95402-0116

ADDRESS SERVICE REQUESTED

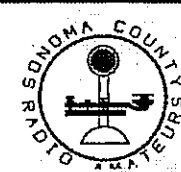
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## Short Skip

Sonoma County Radio Amateurs, Inc

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146.730 MHz • 224.48 MHz • 441.375 MHz



Repeater Station  
**W6SON**

Volume 25 Number VII

<http://cds.cds1.net/scra/>

July 2000

## Hamvention-Convention 2000 a Hit!

NEWINGTON, CT, May 22, 2000--Amateur Radio's upbeat mood spilled over into Dayton Hamvention 2000, which hosted the ARRL National Convention. Early indications were that the three-day event, which ended Sunday, attracted more than 30,000 visitors for the first time in its history.



Riley Hollingsworth, K4ZDH

"This appears to be the largest Hamvention in history," Great Lakes ARRL Director George Race, WB8BGY, announced Saturday. "This is an incredible weekend for DARA, for Hamvention and for the ARRL. It's really been fantastic!"

Hamvention weather cooperated for the most part with partly sunny to overcast skies and generally cool temperatures.

Hamvention banquet speaker Riley Hollingsworth, K4ZDH, exhorted his audience to work toward making the Amateur Radio Service the finest radio service ever. Hollingsworth, who's the FCC's special counsel for amateur radio enforcement, reiterated that the Commission is in the enforcement business to stay.

Hollingsworth also told the gathering--and the FCC Forum Sunday morning--that former amateur licensee Richard Burton was indicted May 5 on six felony counts by a federal grand jury in Los Angeles. Burton has been jailed twice in connection with alleged malicious interference on area repeaters. Hollingsworth noted that with fewer complaints in recent

months the FCC has been able to focus more on older cases that still require attention.

Reprinted from AARL Newsletter

## Willem van Tuijl Released from Hospital

NEWINGTON, CT, May 26, 2000--Willem van Tuijl, the 13-year-old from the Netherlands wounded by gunfire during an attack by pirates off the coast of Honduras last March, has been released from a Dallas hospital. The Dallas Morning News reports Willem "did wheelies in his wheelchair to celebrate" as he left Our Children's House at Baylor University Medical Center on May 24.

The son of Jacco and Jannie van Tuijl, KH2TD and KH2TE, Willem faces another two to three weeks of outpatient care. He is expected to be paralyzed from the waist down as a result of his injuries. His parents have been staying at the Ronald McDonald House in Dallas during Willem's recovery.

After the pirate attack, the family was aided by Amateur Radio operators who called the Coast Guard and provided medical advice during the family's trip to shore with the gravely injured youngster. Miami physician Jim Hirschman, K4TCV, was among several hams who stayed with Jacco van Tuijl on 20 meters to monitor the boy's condition and offer assistance over the air.

With the help of a friend, Jacco van Tuijl recently sailed his boat--Hayat--from where it had been moored in Honduras to a slip in Southern Florida. While there, van Tuijl spent a few days with Ed Petzolt, K1LNC, one of the hams who had aided him on the air after the pirate attack. ARRL President Jim Haynie, W5JBP, was instrumental in getting Willem and his parents transported to Dallas, where the youth could get specialized medical care. Reprinted from AARL Newsletter



**2000 Club Officers**

PRESIDENT	Rick Reiner	K6ZWB	575-4455
VICE-PRESIDENT	Greg Gordon	AC6VJ	523-7077
SECRETARY	Bill Hillendahl	KH6GJV	538-0331
TREASURER	Jim Cardillo-Lee	KE6VGV	778-7474
MEMBERS-AT-LARGE	Bill McCall	W6WDM	538-2844
	Rich Freitas	KF6SZA	578-9335
REPEATER CHAIRMAN	Greg Gordon	AC6VJ	523-7077
ACTIVITIES	Jeff Basham	W2JAB	575-9354
PUBLIC SERVICE	John Mullan	KD2LQ	575-9176

----- SHORT SKIP STAFF -----

EDITOR	Henry Tate	KE6ORF	415-663-8227
AUDIO TAPING	Jeff Basham	W2JAB	575-9354
SWAP SHOP WEB ED.	Jeff Basham	W2JAB	575-9354
SCRA Webmaster	Jeff Basham	W2JAB	575-9354

Short Skip Editor E-mail [ke6orf@arrl.net](mailto:ke6orf@arrl.net)

SCRA HOTLINE: 707-579-9608  
 Web Address: <http://cds1.net/scra>  
 Short Skip On-line: <http://cds1.net/shortskip>

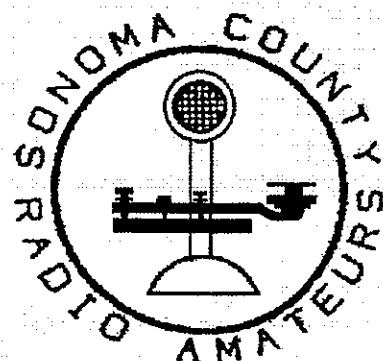
**Tuesday Night Net**

Check into the Tuesday Night SCRA net on the 146.73 repeater at 7:00pm. Announcements of upcoming SCRA activities, a Swap Shop, and the latest Amateur Radio News line broadcasts can be heard.

*Short Skip Advertising Rates*

<b>Business Cards:</b>	<b>\$10</b>
First Quarter Column:	\$11
Each Additional Quarter Column	\$ 3
Full Page, one side	\$32
Pre-printed inserts	\$32/sheet

**Guaranteed Circulation of 200 per month**



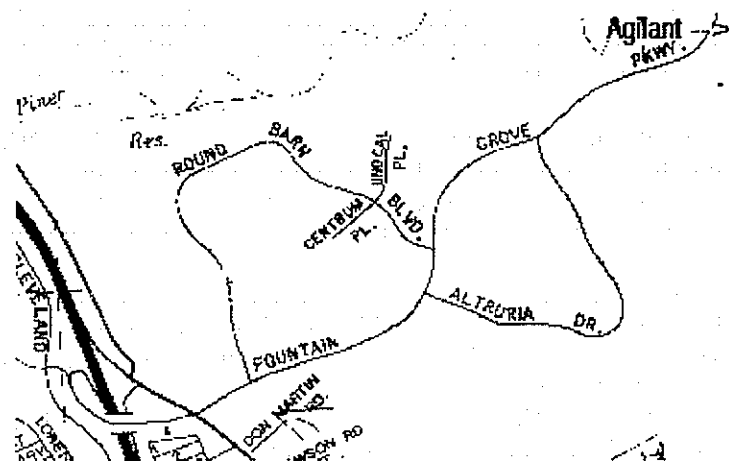
**CLUB MEETINGS**

7:30pm on the first Wednesday of each month at the Agilent plant (formaly HP) in SANTA ROSA. See map below.

**ALL ARE WELCOME!!**

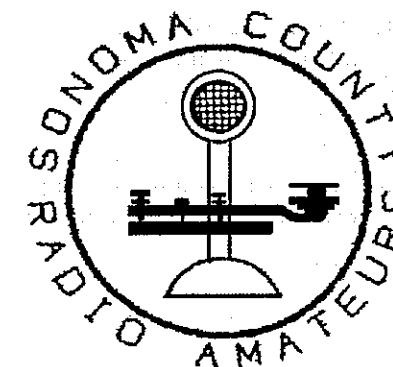
We invite you to attend our next monthly meeting. Membership in SCRA is open to anyone interested in Amateur Radio. If you would like to join, there is a membership application in this issue.

**Next Meeting:  
 July 5, 2000 7:30pm  
 PG&E safety**



**CONTACTS**

Public Relations	Bill McCall	W6WDM	538-2844
TVI/RFI	Alan Bloom	N1AL	538-7115
Refreshments	Ted DeCroff	KB6PTA	542-4008
	Dawn Silveira	KA6OPN	763-1457
Raffles	Jeff Basham	W2JAB	575-9354
Antenna Ordinance/Legal	Lee Dibble	KE6EAQ	544-1675



**Application for Membership in SCRA**

Name \_\_\_\_\_ Call sign \_\_\_\_\_ License Class \_\_\_\_\_

Address \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

City \_\_\_\_\_ Zip \_\_\_\_\_ E-mail \_\_\_\_\_

New  Renewal

**SCRA Dues:** The renewal date for SCRA dues is March 1st. Dues are \$18/year for individual and \$27/year for families. The new member initiation (badge) fee is \$7/person. Dues for new members only are prorated at \$1.50/month for individuals and \$2.25/month for families, starting at renewal time. ARRL dues: \$34/year, (\$28/year over 65 with proof of age.) Under 21 rates require application form. When renewing your ARRL membership, do it through the club and SCRA gets to keep some of the money.

(Please make checks payable to SCRA.)

**I WOULD LIKE MORE INFORMATION ABOUT:**

- Public Service Events
- Emergency Services
- Taking a Novice or Technician class
- Teaching a Novice or Technician class
- Taking an upgrade class
- Teaching an upgrade class
- Helping with SCRA Flea Market
- Acting as Net Control Station
- Helping with VEC license exams
- Field Day and other operating events
- Helping with *Short Skip* (newsletter)
- Other \_\_\_\_\_

**BADGE (New Members Only)**

Fill in this section exactly as you want it to appear on your badge.

Call sign \_\_\_\_\_

First Name \_\_\_\_\_

City: \_\_\_\_\_

**Auto slot Request:** Licensed SCRA members are entitled to a repeater auto slot. Fill in the information below to apply and send the form to: SCRA, PO Box 116, Santa Rosa CA 95402

Name: \_\_\_\_\_

Call sign: \_\_\_\_\_

Phone Number: \_\_\_\_\_

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## ARRL to Have Role in Satellite Home Viewer Improvement Act

NEWINGTON, CT, May 31, 2000--The FCC has assigned the ARRL a role under the new Satellite Home Viewer Improvement Act in helping to determine consumers' eligibility in borderline cases to receive distant network TV signals via satellite. The FCC has designated the League to be the "independent and neutral entity" to designate a party to conduct a signal strength test at a subscriber's household in the event of a dispute between network stations and satellite carriers.

"It's a service we're glad to provide to the public," said ARRL President Jim Haynie, W5JBP. Haynie said the League is pleased to be called upon to play a part in implementing the consumer-oriented legislation. He added that few eligibility disputes are anticipated.

"We appreciate the American Radio Relay League's interest in serving as an independent and neutral entity," said FCC Office of Engineering and Technology Chief Dale Hatfield in a letter to the ARRL. Hatfield said the FCC believes the ARRL is "a particularly appropriate choice for this role because it has no commercial connection with delivery of television services." He also noted the ARRL's national field organization, and that many of its members already were engaged in activities related to the measurement of radio field intensity.

Under SHVIA, a household is eligible to get distant TV signals via satellite if it cannot receive a Grade B signal using a conventional, outdoor TV antenna. The SHVIA sets up procedures for network TV stations to grant waivers to satellite subscribers who can predictably receive a local station's signal off the air as opposed to via satellite. The SHVIA provides that if a waiver is denied, a consumer can request a signal test to determine the actual signal strength received. The ARRL's role would be to determine an appropriate entity to take the measurement.

Hatfield said the ARRL would review the qualifications of proposed testing entities to determine their competence to take signal strength measurements at a given home site. Factors to be considered would include technical training and background, experience with outdoor field strength measurements, and access to appropriate equipment. He said the FCC anticipates that satellite carriers, broadcasters or other interested parties "will identify for ARRL entities willing to conduct the tests and will provide their qualifications in writing."

Hatfield said the League also eventually may develop a list of qualified individuals or concerns to conduct such tests throughout the US and offer that list to satellite providers and broadcasters "as needed and appropriate."

The SHVIA says the costs of conducting the test "shall be borne by the satellite carrier, if the station's signal meets or

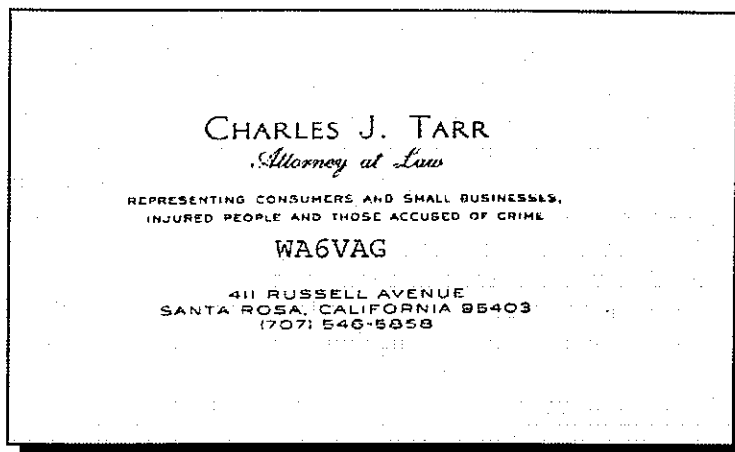
exceeds the signal intensity standard" or by the network station, if its signal fails to meet or exceed the standard.

The FCC seeks comments on technical parameters that could affect over-the-air reception. It also seeks comment on an appropriate eligibility standard for distant digital signals. In addition, the Commission has adopted rules to improve the computer model used to predict signal intensity at a given location to determine eligibility to receive distant network signals via satellite. The improved model now includes signal propagation effects of terrain, building structures and land cover variations, the FCC said.

The Satellite Home Viewer Improvement Act revises and extends the statutory provisions Congress established in the 1988 Satellite Home Viewer Act.

For more information, contact ARRL General Counsel Chris Imlay, cimlay@arrl.org.

Reprinted from the ARRL news letter



## WRC-2000 REACHES TENTATIVE AGREEMENT ON GALILEO

Tentative agreement was reached this week at World Radiocommunication Conference 2000 on a frequency plan for the proposed Galileo radionavigation-satellite system. Galileo is a multinational European project that is intended to meet civilian sector needs for radionavigation-satellite applications, including civil aviation. It has been proposed as a supplement to GPS and the Russian GLONASS system, both designed principally for military applications. The target date for Galileo is 2008.

The tentative agreement has been accomplished at the working group and committee levels. Plenary level approval is required before it becomes a conference decision. The agreement would expand the radionavigation-satellite allocation in the vicinity of 1.2 GHz from the existing band, 1215 to 1260 MHz.

Reprinted from the ARRL news letter

**Next Meeting:** The program for the next meeting will be on electrical and gas systems safety. Representatives from PG&E will be on hand with special displays to demonstrate various problems and hazards encountered. Come join us for this fascinating program.

**At the Last Meeting:** Field Day preparations were presented to the membership.

### CDF-VIPs use 73 repeater for Red Flag Patrol on 4th

The local members of the California Department of Forestry's Volunteers in Prevention will again be using the 73 repeater on July 4<sup>th</sup> for their Red Flag Patrol. The Patrol uses volunteers to tour the county looking for fires or potential fire situations. Their radio traffic is generally light, so regular traffic on 73 will be permitted. But, please be courteous and let the VIPs get their reports passed. If there is an actual emergency and the VIPs need to use the repeater exclusively, the repeater will be put into net mode. The Board appreciates everyone's patience and cooperation.

Sonoma County Radio Amateurs, Inc.  
Membership Meeting 6-7-2000

#### MINUTES

1. Call to Order, Verification of Quorum - The meeting was called to order by President Rick Reiner K6ZWB at 7:41 PM at the Santa Rosa Agilent Technologies facility. There were 44 people present.
  - a. Introductions
    - i. Officers & Directors - The club officers and directors introduced themselves.
    - ii. Guest Speakers - Field Day preparation
    - iii. Visitors - Dave W8NF, Tony Hamill of CAP 157, Bruce W6TBS, Lars W6RMY, Jim KD6CZA, Tim KF6ZCS
    - iv. New Calls & Upgrades - Sue Bennett is now N3SU; Sue Mullan is now K8SUE; John Mullan is now KD2L.
2. Approval of Minutes - Brian Torr N6IYY moved that the minutes of the May 3, 2000, be approved as printed in Shortskip. The motion passed.
3. Officer & Director Reports
  - a. Treasurer - Jim Cardillo-Lee KE6VGV was not present so there was no report.
  - b. Officers - Secretary Bill Hillendahl KH6GJV invited the members to review the binder of newsletters received from other clubs. Bill pointed out the member badges that need to be picked up. Bill also invited members to join him as he visits other clubs in the Section.
  - c. Vice President - Greg Gordon AC6VJ reported that the club property had been moved to Lee Dibble KE6EAQ's home. Greg has the big generator at his house and that it is running again. Greg reminded the membership that the club has an HTX-202 2 meter HT available to loan to radio-less licensees.
  - d. Directors - None.

4. Committee Reports
  - a. Activities Committee - Jeff Basham W2JAB announced upcoming amateur radio activities in the area.
  - b. Newsletter Editor - Henry Tate KE6ORF - Henry was complimented on the great newsletter. Henry will go going on a trip and will get the newsletter to Bill to get to the printer.
  - c. Public Service - John Mullan KD2L advised that the Terrible Two is on Saturday, 6/17. Other events are as follows: 7/9 Half Vineman - John is taking signups; 7/15 Healdsburg Harvest; 8/12 Vineman
  - d. Repeater Committee - Greg Gordon AC6VJ reported that he had been to Sonoma Mountain two weeks ago and put the digipeater back on frequency. The English Hill 73 repeater is on the air. A repeater operator class is being planned in conjunction with the Empire Amateur Radio Society (EARS). Members interested in learning about repeaters and control functions should contact Greg, Jeff W2JAB or Bill KH6GJV.
5. Unfinished Business - None
6. New Business
  - a. Lee Dibble KE6EAQ presented and read a proclamation from the City of Santa Rosa declaring Amateur Radio Week the Week of June 18. Lee advised that a similar resolution is due from the county Board of Supervisors.
  - b. Dawn Silveria KA6OPN needs a replacement for her job bringing sodas to the meetings. With her recent job change, she is not able to consistently bring the drinks.
7. Recess - The meeting went into recess at 8:10 PM and resumed at 8:30 PM.
8. Show & Tell - None.
9. Program - Field Day preparations and setup were reviewed for the membership. John Mullan KD2L advised that the Saturday BBQ dinner was \$8 per person and that the menu would be chicken, salads, beans, etc. The cost will also cover Sunday's breakfast.
10. Raffle
  - a. Regular - The 50/50 raffle was won by Miki KB9OKG who split \$36 with the club.
  - b. The membership raffle was won by Bill Hillendahl KH6GJV who won \$16.50 in pocket change.
11. Announcements
  - a. Next Program - PG&E Safety
  - b. Board Meeting next Wednesday at Master's Touch Mortgage, 8979 Conde Lane, Windsor, at 6:30PM.
12. Adjournment - The meeting was adjourned at 9:21 PM.

Sonoma County Radio Amateurs, Inc.  
Board of Directors Meeting 6-14-2000

#### MINUTES

Board Members Present: Rick Reiner K6ZWB, Greg Gordon AC6VJ, Bill Hillendahl KH6GJV, Jim Cardillo-Lee KE6VGV, Rich Freitas KF6SZA, Bill McCall W6WDM, John Mullan KD2L, and Jeff Basham W2JAB.

Board Members Absent: Bill McCall W6WDM

Guests Present: Brian Torr N6IYY, Tony Hamill, Zack Hamill KG6ABA and Sue Mullan K8SUE.

13. Call to Order, Verification of Quorum, Introductions - The meeting was called to order by President Rick Reiner K6ZWB 6:38 PM. The meeting was held at the offices of Master's Touch Mortgage,

8979 Conde Lane, Windsor. A quorum was present in that seven of the eight voting board members were present.

14. Approval of Minutes - Jeff W2JAB moved that the minutes of the Board meeting of May 10, 2000, be approved as printed in Shortskip. The motion passed.
15. Officer & Director Reports
- a. Treasurer
- i. Current Financial - Jim reviewed the current balances in the club accounts and the income and expenses.
- b. Officers
- i. Secretary
- Mail & Communications - Bill KH6GJV distributed the mail to the appropriate officers and presented the newsletters that the club had received.
- Generator Title - Bill reported that he had researched the "SE" plate on the generator with DMV. The plate had expired and is a Special Equipment plate that is issued for a period of years. The club will have to apply for a new one if they wish. The cost is about \$6. DMV told Bill that there is no title to the generator trailer. It can be transferred with a simple bill of sale.
- c. Directors - None
4. Committee Reports
- a. Activities Committee - Jeff Basham W2JAB
- i. Swap Meet - Rick K6ZWB advised that he had secured the permit to use Lewis Road School as the Swap Meet site. He is sending out notices to the publications. He is also getting a notice out to the ARRL. The club will not request a book shipment from the League. It was suggested that a mailing be made to local hams about the swap and that flyers be distributed at the Foothill and Livermore Swaps.
- b. Newsletter - Henry Tate KE6ORF was not present to make a report.
- c. Public Service Committee - John KD2L reported the following 6/17 Terrible Two- this weekend, 7/1-2 Sonoma County Hot Air Balloon Classic - may not need us, 7/9 Half-Vineman, 7/15 Healdsburg Harvest Century - John will be gone and needs someone to cover, 8/12 Vineman, 9/23-24 Waves to Wine.
- d. Repeater Committee - Greg Gordon AC6VJ
- i. Status of Repeaters - Greg advised that 73 was working at both locations and that he had gone to Sonoma Mountain and put the 220 digipeater back on the correct frequency.
- ii. Net Control Operators - 7-4 No Net, 7-11 VJ, 7-18 RMW, 7-25 ZWB
- iii. Control Operator approval by Trustee - letter being sent to Al by Jeff.
5. Unfinished Business
- a. Meeting Programs - July - PG&E Electric & Gas Safety; Aug - ARRL Pacific Division Director Jim Maxwell. Future program ideas - Cell Phone Technology, Surface Mount Devices, CATV Systems, Force 12, PSK31 (Oct?).
- b. Club Calendar - No changes
- c. Storage of Club Property - Greg AC6VJ, Bill KH6GJV and Andrew KE6HID picked up the club property from Larry's storage unit and delivered it to Lee Dibble

KE6EAQ's home. Greg and Lee built a raised shelf to store the property in Lee's barn.

- d. Field Day - Bill KH6GJV reviewed for the BoD the issues related to the issuance of the proclamations of Amateur Radio Week by the City of Santa Rosa and the Sonoma County Board of Supervisors. Lee Dibble KE6EAQ had drafted the resolutions and submitted them. The proclamation by the city went fine. The resolution sent to the county was modified by the Department of Emergency Services who had deleted all reference to SCRA. Bill KH6GJV, Jim KE6VGV and Bill W6WDM spoke with various members of the Board of Supervisors. The resolution was changed back to the original text. Both Bills, Lee and Rich KF6SZA attended the Supervisors meeting and received the resolution on behalf of the club. It was decided to start off as a 3A station. W2JAB will be used for the Novice/Tech+ station. There will be no VHF/UHF station. Brian N6IYY will pick up the TH6 from Larry. Logging will be by computer with paper backup. Bill KH6GJV and Greg will handle power. John is in charge of food. The site layout was reviewed. People should start arriving about 2 PM.

#### 6. New Business

- a. Bill KH6GJV reported that the club had received a donation of \$300 from the Santa Rosa Cycling Club for four Larsen magmount dualband antennas for public service events. SCRA provides communications support for the clubs rides each year. Randy Black KE6VMZ suggested the idea, and, he and Bill McCall W6WDM made the presentation for the request to the SR Cycling Board of Directors. The antennas have been ordered and should arrive in time to be used for the Terrible Two. The check for \$300 was given to the Treasurer.
- b. Jeff W2JAB advised that he had been asked by the CDF-VIP group to again use the 73 repeater on July 4<sup>th</sup> for their Red Flag Patrol. There being no objection, the Board approved non-exclusive use of the repeater by CDF. The Secretary was directed to send a letter to Harry Martin.

#### 7. Announcements - None

8. Adjournment - The meeting was adjourned at 8:30 PM

**THANK YOU**  
**Carol & Steve Carniglia KV6A**  
**CDS Enterprises**

Sometimes we forget to thank people for their generous assistance to the club. Carol and Steve's business, CDS Enterprises, provides the club's e-mail, voicemail and hosts the club website free of charge. Please remember them if you or your business need such services. You can call CDS at 707 573-3500.

A member of our club is Q-less. Do you know who it is?

## FCC Adopts Ultra-Wideband Technology Proposal

WASHINGTON, DC, May 12, 2000--Saying the action could have enormous benefits for public safety, consumers and businesses, the FCC has adopted a proposal to consider permitting the operation of ultra-wideband--UWB--technology on an unlicensed basis. The Commission is seeking comments on its proposal, which would pave the way for a vast array of new products incorporating UWB technology. The FCC acted on ET Docket 98-153 on May 10.

In September 1998, the Commission initiated a formal inquiry to investigate the possibility of permitting UWB operation on an unlicensed basis under Part 15 of its rules. UWB devices appear capable of operating on spectrum that's already occupied by existing radio services without causing interference. The FCC says it could permit scarce spectrum resources to be used more efficiently.

Recent advances in UWB technology have resulted in its potential use for a variety of applications such as radar imaging of objects buried under the ground or behind walls and short-range, high-speed data transmissions suitable for broadband access to the Internet. UWB communications devices can also be used by police, fire and rescue personnel to provide covert secure communications. Several parties also note that UWB devices can be used for a variety of communications applications involving the transmission of very high data rates over short distances without interference. Such devices can be used to distribute wirelessly services such as phone, cable and computer networking throughout a building or home.

In its consideration of proposals for the authorization of UWB technology, the Commission has committed to ensuring that safety services, such as the Global Positioning System, are protected against harmful interference. To ensure this protection, the Commission noted that further testing and analysis would be needed before UWB technology could be authorized to operate in the bands used for these services. The Commission stressed, in particular, the need for further testing and analysis in bands below 2 GHz.

The FCC says testing already is being planned by a number of organizations, including the Department of Transportation and the National Telecommunications Information Administration. The Commission noted that it would provide ample opportunity to complete these tests and ensure that the analysis of the test results are submitted in the record for public comment before adopting any final rules. The Commission asked that all test results be submitted for the record by October 30.

The complete FCC Notice of Proposed Rule Making is available at

[http://www.fcc.gov/Bureaus/Engineering\\_Technology/Notices/2000/fcc00163.doc](http://www.fcc.gov/Bureaus/Engineering_Technology/Notices/2000/fcc00163.doc).

Reprinted from the ARRL news letter

## Tentative Phase 3D Launch Date Reset

The Phase 3D Amateur Radio satellite will not launch until September at the earliest. Under the latest tentative Arianespace launch schedule, P3D now could go up on the Ariane Flight 507 as early as mid-September, but the launch could be as late as the end of October.

Arianespace recently announced a resumption of Ariane flights. Flight 507 had been on the schedule to go into space in July, but concerns over potentially defective thrusters had caused some major customers to delay flight preparations. AMSAT-NA President Keith Baker, KB1SF, called the Arianespace announcement "very good news" for the Phase 3D program.

The Phase 3D satellite is at the European Spaceport in Kourou, French Guiana, awaiting the start of its launch campaign.

Arianespace representatives met recently with Phase 3D representatives at AMSAT-DL headquarters in Marburg, Germany, to discuss preparations for the P3D launch campaign. The exact date of the Phase 3D mission's launch depends on the Ariane 506 launch, set for July, and the availability of the other satellites flying with P3D.

A launch contract accepting Phase 3D as a payload for the first suitable Ariane 5 launch vehicle was signed last October.

Reprinted from the ARRL news letter

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## Papua New Guinea approves 5 WPM for full HF access

Licensing authorities in Papua New Guinea have approved full HF access for Papua New Guinea "K call" holders. The move effectively gives any qualified Technician who can pass a 5 WPM Morse test full HF access, as had been the case earlier with 10 WPM qualifiers.--Rick Warnett P29KFS via Q-News

Reprinted from the ARRL news letter

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- Etc...

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- ARRL Handbook
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- Antenna Books
- Etc...

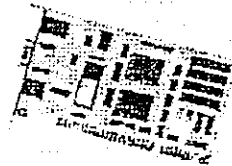
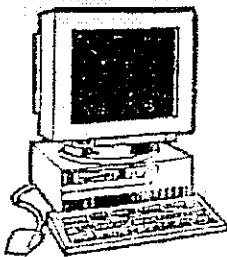
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- SCAF Filters
- MFJ accessories
- Code keys
- Van Gorden Antennas
- Surplus Electronics
- Tools, parts, etc...

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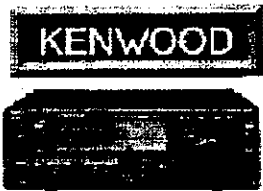
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