



K6QLF

VOLUME 4, ISSUE 5

JUNE, 2009

Amateur Radio Club of Alameda

President's Message

All those interested in operating on the HF bands look anxiously at the sunspot reports to see if the extended low in activity has come to an end. No such luck however and the current forecast isn't too promising either. Not too long ago, the international panel of scientists were suggesting that the maximum would be worth waiting for as it would be quite the bonanza.

However a few months of inactivity later, and the forecast is for the maximum to occur in 2013 and to have a low maximum only slightly better than 1928, the last poor year. That is more

than two solar cycles later than Marconi's first reported trans-Atlantic transmission in 1901. Marconi's work spawned tremendous research work around the world by pioneers such as Major Edwin Armstrong inventor of the super-het receiver (1926). The famous Yagi-Uda beam antenna was invented at the Tohoku Imperial

University in Japan in 1926. Could it be that the focus on improved receivers and higher gain antennas was due to the lackluster solar cycle occurring just then? As the saying goes, necessity is the mother of invention.

continued on page 3



Changes to ARRL VHF/UHF Contest Rules Now in Place

The League's Programs and Services Committee has approved recommendations made by the ARRL's VHF-UHF Advisory Committee (VUAC) to change two rules in the ARRL's VHF/UHF contest program. These changes are in effect immediately, and include the [2009 June VHF QSO Party](#), scheduled for June 13-15.

The first change concerns the Limited Rover category. The ARRL Programs and Services Committee ac-

cepted the VUAC's proposal that Limited Rovers may now compete on only the four lowest frequency bands available for any given contest. For the January, June and September VHF Contests, this means 6 and 2 meters, as well as 222 and 432 MHz. For the August UHF Contest, this means 222, 432 and 902 MHz and 1.2 GHz. QSOs on other bands can be made by Limited Rovers, but they will not count toward the Limited Rover's score and will be considered a checklog. *continued on page 3*

INSIDE THIS ISSUE:

ARRL Field Day Tips & Techniques that Everyone Can Use	2
ARRL CE Online Course Registration	2
Changes to ARRL VHF/UHF Contest Rules Now in Place	3
The K7RA Solar Update	4
Tech License Class Schedule	4
Amateur Radio Quiz	5

Alameda's Weekly Disaster Preparedness Net

Each Thursday at 1900 444.575 MHz plus (PL 88.5)

- June 4: Joe **KC6ZZT**
- June 11: David **KI6AWR**
- June 18: Ron **KF6LSY**
- June 25: Bruce **KI6CYT**

Upcoming Meetings at 431 Stardust Place on Alameda Pt.

- June 1st - Shop Night
- Due to Field Day, there will be Monthly Meeting for June
- July 5th - Shop Night

ARRL Field Day Tips and Techniques That Everyone Can Use

Many amateurs treat [ARRL Field Day](#) (June 27-28) as a contest, even though it isn't one. But if your idea of Field Day fun is to go for the highest score possible, ARRL Contest Branch Manager Sean Kutzko, KX9X, offered the following suggestions at the ARRL Field Day Forum at the 2009 Dayton Hamvention.

- 1) You will get many more stations in your log by calling CQ than by tuning the dial and answering CQs; however, if you're calling CQ and not getting any replies, keep calling. Most major contesters call CQ for several minutes at a time before giving up. Giving up after three or four CQs is giving up too soon.
- 2) Keep your CQs short and to the point: "CQ Field Day, CQ Field Day, Whiskey-One-Alfa-Whiskey, Field Day." Wait about 5 seconds between CQs -- this gives stations enough time to answer you.
- 3) Use standard phonetics. "Cute" phonetics don't always get through and they can confuse newer operators.
- 4) When working a station, you should give your exchange information only once and keep it simple. "Whiskey-One-Alfa-Whiskey, copy three Foxtrot Connecticut, QSL?" If they didn't get all of the exchange, they will ask for a repeat.
- 5) If you are running a pileup: Once you have pulled a call out of the pileup, give your exchange information first. Here's an example: "Whiskey-One-Alfa-Whiskey, copy 3F Connecticut, QSL?" Don't ask for the calling station's information first -- this will reduce any sense of rhythm and timing in the pileup.
- 6) If you get a pileup of stations and can't make out an entire call, listen for one letter and ask for it specifically: "The station with Delta only, go ahead."
- 7) When you get the other

station's information, keep your acknowledgment simple. "QSL, thanks, QRZ Field Day from Whiskey-One-Alfa-Whiskey."

8) Find a comfortable pace for you and maintain that pace. You will tire quickly if you are screaming into the microphone or trying to work stations too quickly. This leads to inefficiency.

9) Use a headset with a boom microphone and a foot switch -- this frees up your hands to log QSOs. Writing or typing with a mike in your hand slows you down.

10) Go for as many bonus points as you possibly can. Numerous opportunities exist, from copying the Field Day message to sending traffic to using natural power for QSOs.

These tips should help maximize your score on Field Day. Remember: No matter how you choose to enjoy Field Day, maximize your fun, however you define it.

[courtesy of ARRL.org](#)

ARRL Continuing Education Online Course

Registration remains open through **Sunday, June 7, 2009** for these [online course sessions](#) that begin on **Friday, June 19, 2009**: Antenna Modeling (EC004) and Radio Frequency Propagation (EC 011).

Each online course has been developed in segments -- learning units with objectives, informative text, student activities and quizzes. Courses are interactive, and some in-

clude direct communications with a Mentor/Instructor. Students register for a particular session that may be 8, 12 or 16 weeks (depending on the course) and they may access the course at any time of day during the course period, completing lessons and activities at times convenient for their personal schedule. Mentors assist students by answering questions, reviewing assignments and activities, as well as providing helpful

feedback. Interaction with mentors is conducted through e-mail; there is no appointed time the student must be present -- allowing complete flexibility for the student to work when and where it is convenient.

For more information or to register for any of these courses, visit the Continuing Education Program [page](#) or [contact](#) the Continuing Education Program Coordinator.

[courtesy of ARRL.org](#)

President's Message

Continued from page 1

So at this low point in what may be a relatively disappointing solar cycle, why don't we focus on antennas? To start out with I should mention that the ARCA engineering team is currently working on a 2m antenna intended for base station and em-comm applications. The antenna is a small omni directional vertical designed as a compact rugged portable unit that will enable you to upgrade from that rubber duckie and make your HT sound like a base station. No more relays needed for simplex! If all goes according to plan we should have it working in time for the

upcoming Antenna Shoot Out at the end of August. Following that project, we should take a look at HF antennas so we can be better prepared for those little openings that pleasantly surprise us from time to time.

Field Day Reminder

Count down to Field Day 2009 – a final reminder. Field Day set up begins at 8:00 am at the Crown Memorial State Beach, Alameda. http://www.ebparks.org/parks/crown_beach

Set up consists of setting up the antennas and tents and readying

the two MDUs that will be on public display for the first time following commissioning. We will be on the air at 11:00 am, the official start time for Field Day. Field Day this year is less a contesting opportunity it is more to demonstrate our communications capability to the general public, give members and visitors an opportunity to get on the air and above all to have fun! The operating part of Field Day will end between 5:00 pm and 6:00pm during which we will tear everything down, prior to the ever popular barbecue event.

David **K16AWR**

Changes to ARRL VHF/UHF Contest

Continued from page 1

"We have already applied changes to the log-checking software that will adjust the Limited Rover's QSOs above the lowest four bands to zero-point QSOs," said ARRL Contest Branch Manager Sean Kutzko, KX9X.

The second change concerns the [ARRL UHF Contest](#). For the first time, Kutzko said, the ARRL Awards Committee voted to add Club Competition to the UHF Contest, beginning in 2009. "This is something that the VHF/UHF community has been asking for this for quite some time," he explained. "The VUAC made their recommendations and the Awards Committee agreed. We hope to see VHF/UHF clubs across the country

help increase participation and get involved with this fun contest."

According to Kutzko, these changes come on the heels of the redesign of the June VHF QSO Party Plaque Program. "In the past," he said, "plaques in the June VHF QSO Party have been awarded for first through tenth place in any category, regardless of location. As any VHFer will tell you, there are radical differences in propagation from one part of the country to another. We decided the plaque program needed to be based on Division, just like every other plaque program that the ARRL offers, not position in the standings."

Kutzko explained that the Programs and Services Committee agreed with this recommendation and voted in favor of it: "This change in structure recognizes the Division-level competition that takes place in the June VHF QSO Party, sometimes under conditions of little to no propagation."

June VHF QSO Party plaque sponsorships are available for all entry categories in all 15 ARRL Divisions, Canada, Mexico and DX. If you or your club is interested in sponsoring a plaque (\$75, including shipping charges), contact ARRL Contest Branch Manager Sean Kutzko, KX9X, via [e-mail](#) and he will help you find a plaque that's right for you or your club to sponsor.

courtesy of ARRL.org

Tech License Class Schedule

Do you know anyone who is interested in getting their FCC license? We have a new 2 week license class scheduled to begin in July so let's spread the news.

The Technician License Class begins on Tuesday, July 14th. The class consists of four sessions held over a two week period on a bi-weekly basis. It is recommended that students attend each class as different topics are covered at each session. Students can make up missed sessions with home

study as required.

The class schedule is shown below:

Tuesday, July 14th
6:30 pm - 9:30 pm (registration at 6:30, class begins 7:00 pm)

Saturday, July 18th
8:30 am - 11:30 am

Tuesday, July 21st
7:00 pm - 9:30 pm

Saturday, July 25th
8:30 am - 11:30 am

All classes will be held at the Alameda Fire Department

Training Center at 431 Stardust Place, Alameda, CA 94501.

A test session is offered on Sunday July 26th, beginning at 9:00 am. The session will be held at Oakland Fire Station #1 located at 1605 Martin Luther King Jr. Way, Oakland CA 94612.

To register for this class, or obtain more information please contact David Haycock at 510 846-0011 or email ki6awr@arrl.net

David **KI6AWR**

The K7RA Solar Update

That was a nice string of days showing a sunspot -- May 13-19 -- a whole week. Then it was gone, but a few days later on May 23, another Solar Cycle 24 sunspot emerged, this time in our Sun's southern hemisphere. But it was another of those phantom spots. This one actually emerged, and gave us a sunspot number of 13. For that one day it covered 30 10E-6 hemispheres. (10E-6, or 10 to the minus sixth power, is another way of expressing the fraction one-millionth). The next day it was gone.

The area of that spot represented .003 percent of the hemisphere of the Sun that we could see, that which was pointed toward us. Because 10E-6 is one-millionth, then 30 times that would be thirty-millionths (three hun-

dred-thousandths), or .003 percent. During the seven days with a sunspot, May 13-19, the sunspot numbers were 12, 18, 12, 15, 13, 14 and 11. On those same dates, the sunspot area expressed in millionths of a solar hemisphere was 10, 20, 10, 20, 10, 30 and 10.

When we see more activity, these values can be much larger. Note that the sunspot area doesn't track exactly relative to sunspot number. The largest sunspot area was on May 18 and the largest sunspot number was May 14. Thanks to Carl Luetzel-schwab, K9LA, for the refresher on scientific notation and the function of E.

Sunspot numbers for May 21 through 27 were 0, 0, 13, 0, 0, 0 and 0 with a mean of 1.9. The 10.7 cm flux was 71.8,

72.1, 70.4, 69.2, 68.9, 68.1 and 66.7 with a mean of 69.6. The estimated planetary A indices were 5, 5, 4, 4, 3, 4 and 3 with a mean of 4. The estimated mid-latitude A indices were 2, 4, 3, 4, 1, 2 and 2 with a mean of 2.6.

Conditions have been quiet, with many days showing zeros for the planetary K index. The US Air Force and NOAA predict a planetary A index of 5 until June 3-5 when it goes to 12, then 8 for the following two days. Solar flux is predicted at 68 until June 5, when it goes to 70, then 71 June 6, and 72 for June 7-14. Perhaps we will see sunspots return during this period. Geophysical Institute Prague has a slightly different view for geomagnetic activity, predicting quiet conditions for May 29 to June 1, quiet to unsettled June 2-3 and active on June 4.

Amateur Radio Quiz: Stating the Obvious

Knowing little things about the geography US states and Canadian provinces can be of great use on the air or just plain fun. This quiz leads into some quiet corners of the North American continent that you know so well -- or maybe you don't. No multiple guesses this month -- it's map time!

- 1) Which state narrows to the smallest distance between two other states before widening again? Where does it do this?
- 2) Which of the contiguous 48 states extends farthest north?
- 3) What direction would you drive from Detroit, Michigan to get to the closest Canadian territory?
- 4) There are two states that have a portion only reachable by way of Canada if travelling by land. One is the answer to Question 2. What is the other state?
- 5) Which is the southernmost state?
- 6) Which state extends farthest from south to north?
- 7) Which state extends farthest from west to east?
- 8) What are the three Canadian DXCC entities?
- 9) Which four states meet at Four Corners?
- 10) Which state has a "thumb"?
- 11) Which state has a "boot heel"?
- 12) How many fifth-district states have "panhandles"?
- 13) If you are at a fixed station in the easternmost part of the easternmost Canadian province, what is your call sign's prefix?
- 14) How many US call sign districts are bordered by the Great Lakes? How many Canadian provinces?
- 15) Which is farthest west, the Northwest Territories, VE8, or the Yukon Territory, VY1?

Bonus Question: What state extends farthest to the south that also extends north of Canadian territory?

Answers

- 1) Maryland -- at Hancock, MD between West Virginia and Pennsylvania
 - 2) Minnesota -- in the International Boundary Waters area
 - 3) East or southeast to Windsor, Ontario
 - 4) Minnesota ([the Northwest Angle](#)) and Washington -- [Point Roberts](#) is only reachable by land through British Columbia
 - 5) Hawaii at 19 degrees North
 - 6) Alaska spans approximately 40 degrees of latitude
 - 7) Alaska again -- from the tip of the Aleutian Islands to British Columbia
 - 8) Canada, St Paul Island (CY9) and Sable Island (CY0)
 - 9) Utah, New Mexico, Arizona and Colorado
 - 10) Michigan
 - 11) Missouri
 - 12) Two -- Texas and Oklahoma
 - 13) VO1 -- in Newfoundland
 - 14) 5 US districts (2nd, 3rd [PA], 8th, 9th and 10th) and 1 Canadian district (Ontario)
 - 15) Yukon Territory, VY1
- Bonus Answer:** California! The northern boundary of California lies at 42 degrees North while the province of Ontario dips a toe into Lake Ontario just south of that line.

ARCA

**Due to Field Day, June 27th,
There'll No June Meeting:**

Monthly EB Radio Club Events

- 4th Friday* Amateur Radio Club of Alameda
7:00 PM, 431 Stardust, Alameda
- 3rd Friday Mount Diablo Amateur Radio Club
- 3rd Friday Hayward Radio Club
- 2nd Saturday Electronics Flea Market in Sunnyvale
(closed in winter)
- 2nd Friday East Bay Amateur Radio Club
- 1st Sunday Livermore Swap Meet (closed in winter)
- 1st Saturday ORCA Monthly Meeting - Oakland

* Some exceptions. See www.arcaham.org for more details

Amateur Radio Club of Alameda meets 7:00 PM at
431 Stardust Place on Alameda Point.

East Bay Amateur Radio Club meets at 7:30 PM at the
Salvation Army, 4600 Appian Way, El Sobrante.

Hayward Radio Club meets at 7:30 PM 1401 West Winton Ave. in Hayward behind Hayward F.S.#6, next to the Hayward Air Ntl. Guard Base.

Oakland Radio Communications Assoc. meets at
9:00 am at Fire Station #1, 17th @ MLK Way

**ARCA on the web:
arcaham.org and
[groups.yahoo.com](http://groups.yahoo.com/group/arcaham/)
[/group/arcaham/](http://groups.yahoo.com/group/arcaham/)**

EB Weekly Nets

- Thursdays Alameda Emergency Preparedness
7:00 PM 444.575 MHz plus PL 88.5
- Thursdays Oakland ARES/RACES Net
7:30 PM 146.88 MHz minus PL 77
- Wednesdays ACSCCT Net
7:00 PM 147.240 MHz & 442.20 MHz
- Thursdays NALCO ARES/RACES
7:15 PM 440.9 MHz plus PL 131.8
- Mondays EBARC
7:30 PM 10M "Explore Net" 28.425 MHz,
USB
- SundayVHF NTS Net
7:30 PM 145.110 (-) PL82.5

ARCA Officers

President:	David Haycock	KI6AWR
Vice Pres.:	Allen Sweet	KG6HM
Secretary:	Joe Springer	KC6ZZT
Treasurer:	Bruce Gillis	KI6CYT

Ex-Officio Directors:

CERT Liaison:	Fred Blas	KI6BES
RACES RO:	Sandy Lavine	KO6JF

ARRL Pacific Division Officers:

Director: Bob Vallio **W6RGG** - w6rgg@arrl.org
Vice Director: Andy Oppel **N6AJO** -
n6ajo@arrl.org
East Bay Section Manager: James Latham **AF6AQ**
af6aq@arrl.org
<http://www.eastbaysectionarrl.org/>

The ARCA Newsletter is published monthly. Any articles can be used with attribution. Articles, news and photos submitted make for a more interesting newsletter; thank you!

Please submit materials for the next issue by June 30th to Bruce **KI6CYT**, b_gillis@sbcglobal.net. Thanks again!