SCCARA-GRAM



Santa Clara County Amateur Radio Associátion

Volume 33, Number 9

September 2017



President's Prose

I would like to thank everyone that attended SCCARA's picnic. The bands might not have been as open as I had hoped, but it was a great day to sit in the shade of a tree and visit. It seems that there is never enough time to visit with everyone at the SCCARA meetings.

On September 9, 2017 SPARK is sponsoring the last De Anza flea market of the year. These have become more important since HRO Sunnyvale closed it's doors. If you are willing to drive a bit, Pacificon 2017 (http://www.pacificon.org) will be held October 20-22, 2017 at the San Ramon Marriott, 2600 Bishop Drive, San There will be educational forums as well as representatives from many major radio and antenna vendors. There will also be ham license testing sessions if you are looking for an opportunity to upgrade your license.

73, Gregg KF6FNA, kf6fna@comcast.net

ARRL News

From The ARRL Letter, August 3, 2017

FT8 Mode is the Latest Bright Shiny Object in Amateur Radio Digital World

It's still in beta testing, but FT8 -- the latest digital bauble to capture the imagination of the Amateur Radio community -- has been luring away many of those already using the already-popular JT65 "weak-signal" mode. FT8 is included in a beta release of WSJT-X, (https://physics.princeton.edu/pulsar/k1jt/wsjtx.html) version 1.8.0-rc1. Among its biggest advantages is a shorter transmit-receive cycle, meaning quicker contacts. The notes (https://physics.princeton.edu/pulsar/k1jt/Release_Notes 1.8.0.txt) for the "candidate" release say that FT8 offers "sensitivity down to -20 dB on the AWGN channel." Contacts are four times faster than with JT65 or JT9, and an entire FT8 contact can take place in about 1 minute.

The new mode is named after its developers, Steven Franke, K9AN, and Joe Taylor, K1JT. The numeral designates the mode's eight-frequency shift keying format. Tones are spaced at 6.25 Hz, and an FT8 signal occupies just 50 Hz. Unlike JT65 or JT9,

Calendar

9/9 **Electronics Flea Market** 9/11 **SCCARA General Meeting**

9/18 SCCARA Board Meeting--(San Jose Red

Cross, 7:30p, all are welcome)

General Meeting

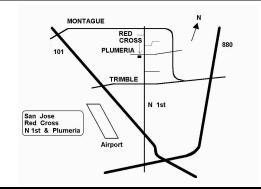
Day: Monday, September 11, 2017

7:30 PM Time:

Place: Kaiser Santa Clara, Hospital B-06 Featuring:

{to be announced}





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The deadline for articles is the last Monday of the month.

SCCARA was formed in 1921 and became a non-profit corporation in 1947. SCCARA is an affiliate of the American Radio Relay League (ARRL). The club station is W6UW.

Web page: www.qsl.net/sccara

President

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(officers are also directors)

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e-mail:, ka6ymd@arrl.net)

SCCARA REPEATERS

SCCARA owns and operates two repeaters under the call W6UU: 2 meter: 146.985 - PL 114.8

442.425 + PL 107.2 70 cm:

Phone auto-dial and auto-patch is available. The two meter repeater is located at Eagle Rock near Alum Rock Park in the foothills of east San Jose. The 70 cm repeater is located at the Regional Medical Center (formerly Alexian), east of downtown San Jose, north of 280 and 101.

SCCARA NETS

On our two meter repeater: Mondays at 7:30 PM, (not the second Monday--our meeting night). Coordinator: Don Village, K6PBQ. On ten meters, 28.385 MHz USB, Thursdays at 8:00 PM. Net control: Wally Britten, KA6YMD. Visitors welcome.

NØARY PACKET BBS

SCCARA hosts the packet BBS NØARY (connect to n0ary-1). User ports: 145.09 MHz at 1200 baud, 433.37 MHz at 9600 baud, and telnet sun.n0ary.org (login "bbs"). Sysop: Gary Mitchell, WB6YRU For general packet info, see the NCPA web site ncpa.n0ary.org.

AMATEUR LICENSE TESTING

ARRL/VEC Silicon Valley VE group: Morris Jones, AD6ZH:

408-507-4698

transmit and receive cycles in FT8 each last about 15 seconds. Like JT65, FT8 requires accurate time synchronization. An auto-sequencing feature offers the option to respond automatically to the first decoded reply to your CQ.

"FT8 is an excellent mode for HF DXing and for situations like multi-hop Es on 6 meters, where deep QSB may make fast and reliable completion of QSOs desirable," Taylor's release notes assert.

ARRL Emergency Preparedness Manager Mike Corey, KI1U, has been using FT8 from the start and put W1AW on FT8 for the first time a few weeks ago on 6 meters.

"This mode is a game changer for 6 meters," Corey said. "Activity is intense, and contacts are possible using this mode when the band seems totally dead." Corey said it's easy to get on with FT8, call CQ, and "quickly fill the log," and he rated the auto-sequencing feature as "awesome."

"FT8 gives small and modest stations a real chance at participating in programs like DXCC, VUCC and WAS; and, to top it off, at a time when band conditions are far from optimal." Corey said.

The beta release came out just days before the July CQ VHF Contest and proved to be a boon to many operators who took advantage of FT8 on 6 meters. In a limited outing for the CQ VHF, Frank Donovan, W3LPL, made 22 FT8 contacts on 6 meters, some of which "may have been difficult to complete on CW," he said.

"We know that the advent of new mode FT8 means that new material is needed for the User Guide," Taylor told the Yahoo Meteor Scatter and Weak Signal Group this week. "We will be working on that in the near future." A new Facebook group has been established for FT8 experimenters.

From The ARRL Letter, August 10, 2017

ARDF Enthusiasts Compete in USA National **Championships**

Fifteen US-eligible competitors took home first-place awards in the just-completed 17th US National Championships of Amateur Radio Direction Finding (ARDF) in Harrison, Ohio. competition ran from August 3 through 6 on the 4,345-acre Miami Whitewater Forest and other nearby wooded sites, and it attracted more than 80 fans of the sport -- also known as foxtailing and radio-orienteering. This year's USA Championships were combined with the 9th ARDF Championships of International Amateur Radio Union Region 2 (IARU R2) -- the Americas. The IARU establishes rules for ARDF competitions. The object is always to find as many of the required transmitters as possible in the shortest amount of time, and then navigate to the finish line. Competitors may use only their own direction-finding equipment, in addition to a compass and the provided map.

Classic 80- and 2-meter competitions with up to five hidden transmitters took place on separate days. Course lengths -- from start to each required transmitter and then to the finish -- ranged from 2.8 to 7.1 kilometers (1.7 to 4.4 miles), depending on age/gender category.

Two additional events took place, both on 80 meters. These included the sprint -- a shortened course with 10 transmitters and a faster transmitter cycle -- and foxoring, a combination of orienteering and foxhunting, in which participants receive maps marked with the approximate locations of a dozen very low-power

transmitters to find. In all events competitors are divided into six age categories for men and five for women, with medals awarded to winners in each category. The 4 days of championship events were preceded by 3 days of informal training in other nearby parks.

According to IARU rules, US-eligible competitors must be either citizens or legal residents for at least 1 year.

Organizing and staging the championships were members of the OH-KY-IN Amateur Radio Society. Additional volunteers were members of Orienteering Cincinnati (OCIN), which also provided the event maps.

Complete results of all events in these Championships are available on the *Homing In* website (http://www.homingin.com/), where there is also much more information about the growing sport of ARDF.

-- Thanks to Joe Moell, K0OV, ARRL Amateur Radio Direction Finding Coordinator

From The ARRL Letter, August 17, 2017

Solar Eclipse QSO Party Will Facilitate Real Science

Amateur Radio will be in the service of science on Monday, August 21, as a total solar eclipse causes the shadow of the Moon to traverse the US from Oregon to South Carolina in a little more than 90 minutes, obscuring the sun completely for a few minutes at any given location along the way. The sudden absence of sunlight -- and especially of solar ultra-violet and x-rays -- is expected to briefly change the properties of the upper atmosphere.

A few hundred radio amateurs already have registered as participants in the Solar Eclipse QSO Party (SEQP), a special operating event organized by the Ham Radio Science Citizen Investigation (HamSCI), which will contribute to the study of the eclipse's impact on the ionosphere. HamSCI's Nathaniel Frissell, W2NAF, said those taking part in the SEQP do not have to be in the path of totality to contribute to the research.

"It is very important for people outside of eclipse totality to participate, because one of the questions we have is how large is the effect on the ionosphere," Frissell told ARRL. "So, we actually need people well outside of where totality is occurring to identify those boundaries."



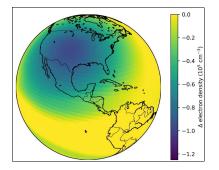
Nathaniel Frissell, W2NAF.

Frissell, an assistant research professor at the New Jersey Institute of Technology (NJIT), said it's easy to be a citizen-scientist. Just getting on the air during the SEQP is a first step. Systems such as the Reverse Beacon Network (http://www.reversebeacon.net/), WSPRNet (http://wsprnet.org/), and PSKReporter (https://pskreporter.info/) will automatically hear digital and CW

transmissions and report back to their respective databases.

Despite more than 60 years of research, "open questions remain regarding eclipse-induced ionospheric impacts," Frissell explained in a paper, "HamSCI and the 2017 Total Solar Eclipse," that he'll deliver at the ARRL-TAPR Digital Communications Conference this year. He feels that radio amateurs' advanced technical skills and inherent interest in ionospheric science make them "ideal for contributing to -- and participating -- in large-scale ionospheric sounding experiments."

Actually, three HamSci-coordinated Amateur Radio experiments have been designed to study the 2017 solar eclipse. In addition to the SEQP are the HF Wideband Recording Experiment and the Eclipse Frequency Measurement Test (FMT).



The difference in electron density, as modeled for August 21 at 1815 UTC, between the eclipsed and uneclipsed ionosphere at an altitude of 302 kilometers. A large electron density depletion caused by the eclipse shadow is visible over the US. [Graphic courtesy of Joe Huba]

The HamSCI Wideband Recording Experiment will aim to capture all Amateur Radio HF spectrum from locations across North America during the SEQP. The recordings, according to Frissell's paper, "will allow for the study of eclipse-induced propagation changes use signals generated by the SEQP, as well as examine changes in noise floor measurements throughout the time of the eclipse." The experiment was developed with input from the TAPR community.

The FMT experiment will provide information as to how much and how fast the ionosphere changes in height along a particular path. According to research cited in the paper authored by Frissell and others, rapid changes in ionospheric electron density caused by the motion of an eclipse shadow "cause Doppler shifts on HF ray paths propagating through the eclipsed region."

"Joe Huba and Doug Drob at the Naval Research Laboratory have calculated a prediction of what the ionosphere will look like using their physics-based SAMI3 model," Frissell pointed out.

ARRL Contributing Editor Ward Silver, N0AX -- a contributor to "HamSCI and the 2017 Total Solar Eclipse" -- said the SEQP is simply a great way to experience the magic of radio.



By mid-week, more than 600 h a m s h a d registered their intention to participate in the SEQP.

Registration is not required to participate.

"If you're a longtime HFer, you will hear the day-night cycle compressed and accelerated into a few hours, plus maybe some subtle things you've never heard before," Silver said. "If you are new to HF, you can clearly experience the bands changing, opening, closing very quickly. You can literally hear the world

turning during this eclipse. All you have to do is turn on the radio and make contacts. Listening or operating, it will be a thrill that you can only get through ham radio."

It is not necessary to register for the SEQP in order to participate, Silver pointed out, and many more stations than those who have signed up are likely to be on the air on August 21. Multiple Amateur Radio special events also will be on the air along the path of totality on August 21.

Radio Eritrea and Radio Ethiopia Still Battling on 40 Meters

It was a now-familiar story in the July edition of the International Amateur Radio Union Region 1 (IARU R1) Monitoring System (IARUMS) newsletter, which reports that Radio Eritrea and Radio Ethiopia are still slugging it out within the 40-meter amateur band. IARU Region 1 includes Europe, Africa, the Middle East, and northern Asia.

"The hostile brothers were daily active on 7,150 and 7,175 kHz," said IARUMS Coordinator Wolf Hadel, DK2OM. "Earlier complaints were not regarded. No change." Radio Ethiopia has been deliberately interfering with Radio Eritrea on both frequencies by transmitting white noise, Hadel said.

Elsewhere on 40 meters, Radio Hargaysa in Somalia has been transmitting on 7,120 kHz, and is audible daily in Australia and Japan. On 7,200 kHz, the "Firedrake Jammer" in the People's Republic of China has been transmitting on top of a broadcaster in the Republic of China (Taiwan). The PRC considers Taiwan a province. The Firedrake (or Fire Dragon) jammer, which has been interfering with Amateur Radio signals on 40 and 20 meters over the past decade or longer, also disrupts broadcasts from the Voice of America, Radio Free Asia, and the BBC. The jammer's designation derives from the name of a lengthy Chinese folk tune that the jammer transmits.

So-called "cluster beacons" from Russia have become another issue reported on the 80- and 40-meter CW/digital segments. These CW signals are showing up on several frequencies above 3,590 kHz and in the vicinity of 7,039 kHz and identify with three-letter, R-prefix call signs. They're operated by the Russian Navy, according to IARUMS.

Over the Horizon (OTH) radar signals also continue to intrude on the exclusive Amateur Radio 40-, 20-, 15-, and 10-meter allocations.

From The ARRL Letter, August 24, 2017

Solar Eclipse QSO Party a Hit, Science Conclusions Await Additional Analysis

The 2017 Solar Eclipse QSO Party (SEQP) is history, and, while logs are still coming in, the preliminary participation numbers look good, according to Nathaniel Frissell, W2NAF, of HamSCI (http://www.hamsci.org/).

"Although the final numbers are not yet in, preliminary reports show that over 670,000 spots were detected by the Reverse Beacon Network (RBN), and over 542,000 spots were reported to PSKReporter [PSK Automatic Propagation Reporter] during the SEQP," Frissell told ARRL on August 22. "These numbers will increase as data is processed."

Frissell said overall, the event went well, and he heard a lot of

on-the-air activity during the 8 hours the SEQP was running.

"It will take some time to get a more scientific analysis of this, but we should have some results by the middle of this semester," said Frissell, who is an associate research professor at the New Jersey Institute of Technology. Frissell and others are investigating whether the sudden absence of sunlight during the eclipse -- and especially of solar ultra-violet and x-rays -- would briefly change the properties of the upper atmosphere.



HamSCI's Nathaniel Frissell, W2NAF, was in Kentucky for the eclipse. [Photo courtesy of Nathaniel Frissell, W2NAF]

Despite more than 60 years of research, "open questions remain regarding eclipse-induced ionospheric impacts," Frissell explained in a paper, "HamSCI and the 2017 Total Solar Eclipse," that he'll deliver this year at the ARRL-TAPR Digital Communications Conference (DCC).

He is encouraging anyone who took part in the SEQP to submit a log (http://hamsci.org/seqp) by September 30. Once their logs are submitted, SEQP participants will get a PDF Certificate of Participation. Frissell, who was in Gilbertsville, Kentucky, to observe the eclipse, said, "Totality was beautiful."

At Maxim Memorial Station W1AW, the focus was more on keeping on top of any emergency situations that could arise from the thousands of visitors converging along the narrow strip of totality. ARRL Emergency Preparedness Manager Mike Corey, K11U, and his assistant Ken Bailey, K1FUG, checked into and monitored the SATERN Net on 20 meters. They also monitored the interoperability channel 1 on 60 meters for coordination with federal partners. W1AW Station Manager Joe Carcia, NJ1Q, checked into WL2K nodes on 40 meters for any possible traffic. "Also, during this time, we went outside to look at the eclipse!" Carcia added.



SWL John S. Erickson of Schenectady, New York, tracked WWV signals during the eclipse. [Photo courtesy of Phil Erickson, W1PJE]

Many Amateur Radio special event stations were also on the air along the path of totality on August 21.

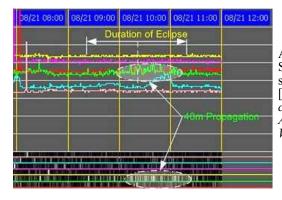
Veteran Broadcast Listener (BCL) Bill Feidt, NG3K, in Maryland, conducted an informal propagation experiment on the AM broadcast band, listening on 1,070 kHz, which, he reported, "came alive with many signals" at about 1830 UTC. "It was pretty much a jumble," he told ARRL. "But just before 1900 UTC, I was able to identify WNCT in Greenville, North Carolina, which became quite strong and dominant for a few minutes." WNCT's 50 kW daytime signal is aimed away from Maryland.

Elsewhere, using the S-meter on his Panasonic RF-4900 receiver,

88-year-old John S. Erickson of Schenectady, New York, the father of ionospheric researcher Phil Erickson, W1PJE, recorded the signal strength of WWV time signals on 10 and 15 MHz every 10 minutes. His results show that nighttime conditions, where WWV got stronger on 10 MHz and weaker at 15 MHz, occurred before local eclipse passage on long paths. His data is being passed on to HamSCI for analysis.

"RF Seismograph" Sees Little Effect

Elsewhere, an initial analysis of solar eclipse RF Seismograph (http://www.nsarc.ca/hf/rf seismo/main.html) measurements by Alex Schwarz, VE7DXW, and his Modulation-Demodulation Software Radio (MDSR) group has suggested that the effect of the brief interruption in solar radiation within an approximately 70-mile-wide strip had minimal overall effect on radio propagation. The Scanning RF Seismograph is a real-time HF propagation monitoring tool.



An RF Seismograph screen capture. [Graphic courtesy of Alex Schwarz, VE7DXW]

"The Solar Eclipse RF Seismograph exclusively showed that propagation changes, but not to the extent that folktales report," Schwarz and the MDSR team said in a news release. "During the eclipse, we measured in three locations, and two did not show any changes in the way propagation behaves. On the third station, at an elevation of 900 meters, the 40-meter band came up, but that is not any different from regular 40-meter behavior."

The team believes that increased absorption on the low bands from high solar activity may have been a factor in the measurement's not yielding expected results. "The small band of darkness could not compensate for the thicker D Layer," the MDSR news release said.

Frissell told Schwarz that he'd be "very hesitant to make these conclusions so quickly and based on observations from a single point of reference."

"We know from past experiments that there are significant ionospheric changes resulting from the eclipse. Even from a citizen-science standpoint, many of these changes have been documented. We are hoping to see these effects on a larger scale."

HAM Class

A new project is being sponsored by the Northern California DX Club (NCDXC). The project is called the NCDXC Elmering Project. Unlike other license preparation programs or 'ham crams' it is intended to actually get Technician or new General class licensees on the air on the HF bands. It consists of three key components or tracks. There a couple of introductory classes that point out the many facets and pleasures of HF operation and give a brief orientation on how our classes will be taught. Track I is a series of classes aimed at helping an applicant

pass the General class exam. Track II teaches basic HF operating skills, equipment selection and station building. Track III covers advanced HF operating techniques, antenna design, propagation and understanding equipment specifications. Many classes will be taught using Power Point presentations brought to each participant using WebEX. The Cisco WebEx application allows a user at home to view the presentation and participate in a two way audio stream without the need for any special software other than the computer's operating system. WebEX supports Windows, Mac OS and Linux. Classes will be posted on the NCDXC web site for later review. Some classes will be taught by the Elmer at his or her own shack. These classes allow the participant to actually get on the air and try out the skills that are learning. All classes are completely free.

Currently posted on the NCDXC web site (ncdxc.org (click the Elmer Project tab) is a flyer describing the project and a slide show offering much more detail and a list of classes. Shortly there will be a one page description of each class posted to the web site and a page answering frequently asked questions. There will also be a sign up page that permits users to sign up for as many classes as he or she wishes. Class date and time will be given on the sign up page. The classes themselves will be posted about a week ahead of the date on when the class will be taught.

Much effort has gone into making the NCDXC Elmering Project as useful a learning experience as possible. Our 13 instructors have many years of experience in their subjects and will strive to make each class fun and interesting. All are good and patient teachers and they operate frequently on the HF bands as DXers, Contesters and rag chewers. Some enjoy designing and building their own equipment as well. We want everyone participating in the project to succeed. There are no dumb questions.

All that is needed for most classes is a notebook and a pencil. For the General class license classes please also bring a copy of the ARRL General Class License Manual and a calculator to each class. Classes will commence in late September 2017. New information will posted regularly on the NCDXC web site. Please check in from time to time and see what is new.

Meeting Minutes

General Meeting, Aug 14, 2017



{No minutes were submitted. -- Editor}

Board Meeting, Aug. 21, 2017



Red Cross Building 2731 N. 1st. St., San Jose, CA

Attendance: President Gregg Lane KF6FNA; Directors: Lou Steirer WA6QYS, Wally Britten KA6YMD, Clark Murphy KE6KXO, James (Rusty) Rustermier KI6ZSK.

Excused Absences: Secretary Praveen Akunuru KK6VGB; Treasurer Goetz Brant K6GKB; Director Don Village K6PBQ. Guests: Paul Gorny KK6HWN.

Announcements: 1) HOLIDAY LUNCH sign up deadline on Aug.28, 2017. Need 25 minimum. 2) Club station open Aug. 26, 2017.

Secretary's Report: none given.

Treasurer's Report: As of 8/19/2017 from email by Goetz

K6GKB:

CHECKING = 7,669.89 SAVINGS = 500.07 CASH = 304.82 TOTAL=\$8,474.78

Repeater Report: Nothing new to report.

Website Report: Nothing new to report.

President's Report: Nothing to report.

Old Business: Nothing to report.

New Business: Nothing to report.

Lou moved to close meeting, second by Rusty. Carried

Meeting adjourned at 19:49

Gregg Lane, KF6FNA, recording for the secretary

Packet Pieces

Downloaded from the BBS packet network:

To: HUMOUR@WW Subject: Jokes 19/10

These are entries to a Washington Post competition asking for a two-line rhyme. The first line must be the most romantic, the second line the least romantic.

- 1. My darling, my lover, my beautiful wife: Marrying you has screwed up my life.
- 2. I see your face when I am dreaming. That's why I wake up screaming.
- 3. Kind, intelligent, loving and hot; This describes everything you are not...
- 4. Love may be beautiful, love may be bliss, But I only slept with you 'cause I was pissed.
- 5. I thought that I could love no other -- that is until I met your brother...
- 6. Roses are red, violets are blue, sugar is sweet, and so are you.

But the roses are wilting, the violets are dead, the sugar bowl's empty and so is your head.

- 7. I want to feel your sweet embrace; But don't take that paper bag off your face.
- 8. I love your smile, your face, and your eyes Damn, I'm good at telling lies!

- 9. My love, you take my breath away. What have you stepped in to smell this way?
- 10. What inspired this amorous rhyme? Two parts vodka, one part lime.

Who said poetry is boring?

A boat docked in a tiny Mexican village. An American tourist named Jon complimented the Mexican fisherman on the quality of his fish and asked how long it took him to catch them.

"Not very long," answered the Mexican.

"But then, why didn't you stay out longer and catch more?" asked Jon.

The Mexican explained that his small catch was sufficient to meet his needs and those of his family.

"But what do you do with the rest of your time?"

"I sleep late, fish a little, play with my children, make love to my wife. In the evenings I go into the village to see my friends, have a few drinks, play the guitar, and sing a few songs. I have a full life."

The American interrupted, "I have an M.BA. From Stanford and I can help you. You should start by fishing longer every day. You can then sell the extra fish you catch. With the extra revenue, you can buy a bigger boat. With the extra money the larger boat will bring, you can buy a second one and a third one and so on until you have an entire fleet of trawlers. Instead of selling your fish to a middle man, you can negotiate directly with the processing plants and maybe even open your own plant. You can then leave this little village and move to Mexico City, Los Angeles, or even New Jersey! From there you can direct your huge enterprise."

"How long would that take?" asked the Mexican.

"Twenty, perhaps twenty-five years."

"And after that?"

"Afterwards? That's when it gets really interesting. When your business gets really big, you can start selling stocks and make millions!"

"Millions? Really? And after that?"

"After that you'll be able to retire, live in a tiny village near the coast, sleep late, play with your children, catch a few fish, make love to your wife, and spend your evenings drinking and playing the guitar with your friends!"

An 86 year old man walked into a crowded waiting room and approached the desk. The receptionist said, "Yes sir, what are you seeing the Doctor for today?"

"There's something wrong with my dick", he replied. The receptionist became irritated and said, "You shouldn't come into a crowded waiting room and say things like that!"

He said "Why not? You asked me what was wrong and I

told you."

The Receptionist replied, "Now you've caused some embarrassment in this room full of people. You should have said there is something wrong with your ear or something and discussed the problem further with the Doctor in private."

The man replied, "Well, you shouldn't ask people questions like that in a room full strangers, if the answer could embarrass anyone.

The man walked out, waited a minute and then re-entered. The Receptionist smiled smugly and asked, "Yes?"
"There's something wrong with my ear", he stated. The Receptionist nodded approvingly and said "And what is wrong with your ear, Sir?"
"I can't piss out of it," he replied.
The waiting room erupted in laughter.

Need Help?

Amateurs have a long history of helping each other. An experienced amateur who helps another is traditionally called an "Elmer." If you have a question or problem, you are encouraged to ask one of SCCARA's Elmers. Below is a list of topics and who to contact for each. If your topic isn't listed, ask one of the Elmers under the topic that comes closest and we'll ask around.

If you consider yourself to be reasonably competent in at least one area of amateur radio and would be willing help others, please fill out an Elmer form from the club secretary.

Topics:

Antennas, feed-lines, tuners: NV6W, W6JPP, K6PBQ

Lightning protection, grounding: WB6YRU Station set-up, equipment: K6PBQ, W6JPP

TVI/RFI: WB6YRU

Homebrew projects, construction: WB6YRU Packet Network (BBS, forwarding): WB6YRU Code operating and installations: NV6W, K6PBQ DX (long distance/propagation): NV6W

Emergency operating/preparedness: WA6QYS HF operating techniques (SSB, CW): NV6W, K6PBQ

Legal/FCC rules: WB6YRU

SCCARA (club inner workings): K6PBQ, WB6YRU, WA6QYS

EchoLink: KK6MX

License testing, new amateurs: W6JPP

Contacts:

NV6W, James D. Armstrong, Jr., evening & msg: 408-670-1680

KK6MX, Don Apte, 408-629-0725

e-mail: kk6mx@aol.com

W6JPP, John Parks, 408-309-8709

e-mail: w6jpp@arrl.net

K6PBQ, Don Village, 408-263-2789 e-mail: donvillage7@yahoo.com

WA6QYS, Lou Steirer, 408-241-7999

e-mail: wa6qys@arrl.net

WB6YRU, Gary Mitchell, 408-269-2924

packet: home BBS N0ARY e-mail: wb6yru@ix.netcom.com

Newsletter Notes

Not a whole lot new to report about the newsletter this month. However, there was something interesting... Your Treasurer, Editor, and perhaps other club members went to go stand in the shade for a couple of minutes on August 21, 2017. But this was no ordinary shade – it was the shadow of the Moon!

The range of brightness is enormous, that makes it impossible to record the whole thing in a single film or CCD exposure. But there is a way--many shots of different exposures can be combine and processed. I plan to give that a try myself. Here's one of my originals:



This was taken with a 400 mm lens, f/5.6, 1/5 sec, it's unprocessed. I have others, but this is a good representative. (If anyone is interested, I can show you the whole set.) Look close toward the lower left of the frame... see that small dot? That's a *star*, and this was shot in the late morning on a clear day! It's Regulus in the constellation Leo.

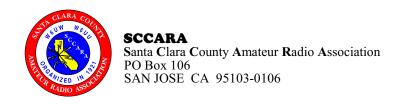
Regarding taking multiple shots at different exposures and combining them... Actually, it's not that simple. A **LOT** of very sophisticated processing is necessary to bring out the detail. The results--if you're *very* good- is something like this:



This is a little closer to what one can see by eye. To give you some perspective... The inner part of the corona is roughly the brightness of the full Moon, the outermost part is no brighter than a ordinary star. There are three stars visible in this image, so is a little detail of the Moon, although it may not show up in this printing. Many images like this can easily be found on the web.

Now, you maybe thinking this is all very well and good, but does it have anything to do with amateur radio? Yes, it does. Don't miss the two articles above on experiments done to explore the HF propagation effects during an eclipse.

73, Gary WB6YRU, editor



FIRST CLASS

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Address:				Licensed since (yyyy):					
City:	State:	Zip:	_	Licence Expiration					
				Date: (mm/dd/yyyy):					
Telephone:	New I	Member	Renewal	I'm also an ARRL member					
E-mail:									
only for club communications and the SCCARA-GRAM newsletter (pdf)									
Membership type and dues: Indiv	idual, \$20	Fam	nily, \$25	Student, \$10 (under 18)					
Memberships start January 1 and expire December 31. Family memberships (more than one member per household): please include the above info for each member, use separate forms.									
New members: Dues are prorated: dues x (11 - month) x 10% (Example: July would be \$20 x (11-7) x 0.1, which is \$8) If joining in November or December: normal dues for next year, the rest of this year is included free.									
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