The July 10th, 2020, 7pm (19:00) meeting was held on air by our club President Denney N6HV who utilized the Sulphur Mountain Repeater, on 145.200 MHz with a minus offset and a PL of 127.3 Hz. As a part of the club meeting, a Zoom meeting was held at 19:30 and the topic was How Not to do Moon Bounce (EME), presented by President Denney. Check the K6MEP.groups.io website for updates.

The August 14th club meeting will have Stu Sheldon AG6AG give a 40-minute presentation about **FT-8**. The link for the presentation will be available 24 hours before the meeting. After check-ins and covering old and new business, we will go over to the Zoom meeting. Slides from the presentation will be available on the web, so if you want to follow along using a land line you can.

Some members of the club have expressed concerns about using Zoom. We will not be talking about anything that discloses personnel information. The Zoom Corporation has been working very hard to increase the security of the program. In addition, the anti-virus program makers are constantly putting out patches to block any problems that are found in Zoom. You can always remove the Zoom program after the presentation and run a virus check.

Club Officers	And Keyer	Contributors
President	Denney Pistole	N6HV
Vice-President	Clem Alberts	KM6OKZ
Secretary	Phil Cohen	WA6BUZ
Treasurer	John Gartman	W6JPG
Board Member	Stewart Stone	KG6BOV
Board Member	Robert Shank	KM6RSS
Board Member	Richard Abbey	WB6AEW
Photographer	Denney Pistole	N6HV
Facilities	Richard Abbey	WB6AEW
Keyer Editor	Robert Shank	KM6RSS
Webmaster	Robert Shank	KM6RSS
Domain	Phil Cohen	WA6BUZ
Membership	Bob Brodie	KJ6AAE
License Trustee	Stewart Stone	KG6BOV
QSL Manager	Ben Holmes	K6QV
Safety Officer	Bob Brodie	KJ6AAE
Local Area Net	Wayne Woodhams	N6WIX
ACS/ARES	Rob Hanson	W6RH
SB Section	John Kitchens	NS6X

The Inside Story

The ***KEYER*** is published monthly by K6MEP, the Ventura County Amateur Radio Club, Inc. as a means of providing club members the minutes from K6MEP's monthly general membership meetings, the monthly board of directors' meetings, a calendar of events and articles of interest on amateur radio. Layout and logos are the property of The Ventura County Amateur Radio Club, K6MEP. The stories printed in this journal remain the property of the writers, without whom we would not have a publication. Permission to reprint articles should be obtained from the authors. Articles and photos from the ARRL are reproduced with permission. Material submitted for inclusion is encouraged. Submit material by email to KM6RSS@gmail.com. Our club mailing address is **K6MEP, PO Box 2103 Oxnard, CA 93034-2103**

K6MEP holds general membership meetings at 7:30 PM on the 2nd Friday of each month (except December). Dues are $20 per year.

Message from the President

The Prez Sez,

Where Do We Go From Here?

The other day Mark asked me, "Now that Field Day is over, what do we do next?"

That's a serious question. At first things that come to mind are; the fall picnic, the elections of club officers, and the DecemberFest.

Our normally scheduled fall picnic had to be canceled due to the governor's social distancing restrictions; I miss our gathering.

Our club elections may be over shadowed by the national elections, but our elections are important. We may have club officers that are exhausted by the long time they have served. Don't be afraid to step forward. It doesn't take years of experience to be a club officer and there are plenty of members that will help you with your duties if you decide to run and become elected. You don't even need to be a ham for decades or even years to become an officer (e.g. our past president had only been a ham for two years when he was elected). You do need the willingness to learn and be able to devote some time to the office. If you are interested, ask the current office-holder what the position involves (or look at our bylaws, posted on the K6MEP web page at k6mep.org . Speaking of our web site, we all owe a big thanks to Robert KM6RSS for keeping the web site up to date and full of information and pictures.

This year is shaping up to be social distancing DecemberFest. It's our party and I need your input on how to make it enjoyable. We could form a DecemberFest committee and kick ideas around and make plan on what to do. I've suggested drive-by gag gift drop offs. Or even putting on your mobile antenna and driving by and honking CQ. Or if someone can figure out how to make the car horn play Jingle Bells we can add some holiday spirit to the drive by. I welcome your suggestions.

As we slog through the dog days of summer, be ready for an unpredictable sun. In June, we had the first M class solar flare since Oct 2017. The new sun spot cycle will take some time to get to its full glory and we will still have long

(Cont. on page 3)

Message from the President (Cont. from page 2)
stretches of days with no sunspots on the earth facing side of the sun. But at any time there can be coronal mass ejections that can give us good propagation.

I encourage you to think about participating in a contest. There are contests to suit everyone. QST has a page full listing upcoming contests. Contests give operators a reason to fire up the radio and get on, even if conditions are bad. They can give you a chance to work a rare station that's not on often or let you get that state you need to complete your WAS (Worked All States) award. On August 15th and 16th there will be the ARRL 10 GHz and up contest. A bit specialized but fun contest. During this contest you can make contacts using light. This contest includes contacts by light. All frequencies above 300 GHz are available for amateur use. That includes laser and flashlights. Pick a contest that will have stations you want to contact participating in and get on and work some new ones even if you're not in the contest. If you're looking for DX, try using the www.dxsummit.fi/# web site. It's a fast moving list of stations that are on the air. Be sure to scroll down to find stations that have been on recently. It will give you a frequency to check to see if they are still on the air.

I'm working hard to get my station ready for the ARRL International EME Competition on October 10th and 11th and the second part is on November 28th and 29th. That gives me a month to recover if the first attempt is a disaster. It will be a small, thrown together station, but it's a goal.
73, Denney N6HV

Field Day Feedback

Vice President Clem Alberts KM6OKZ
Field Day thoughts... My thoughts, such as they are...
In light of the pandemic, a great deal of emphasis was placed on contact logging vis-à-vis computer. In fact, lot of typical Field Day emphasis was shifted to computer usage to compensate for the inability to physically congregate. As a result, the fundamental ethos of Field Day was largely overlooked. I believe my own perspective differed from that of the mainstream, that is to say that I personally made several commitments to the spirit of Field Day, i.e.; erected a new HF OCFD, purchased a 2nd HF rig, got **FT8** installed and running, and obtained/erected a temporary portable octopus style HF antenna. As it turned out, the 2nd rig and OCFD was all I could get accomplished in time for Field Day. The remaining goals could not be completed due to the Ham radio supply sources, (e.g. HRO and DX Engineering) being wiped out due to inventory shortages attributable to pandemic issues. As it turned out, I was able to make what I considered to be a fair number of HF SSB phone contacts using the new OCFD antenna and running at ~800W [using a linear amplifier, of course]. I'm not a fan of QRP in times of notoriously poor propagation. Although I was unable or incapable of setting up **FT8** prior to Field Day, I have subsequently succeeded in getting it going and making what I consider to be many contacts within a relatively short space of time. While **FT8** is interesting, I rather resent its use for Field Day ARRL logging purposes and ARRL associated contacting credit. By its nature, **FT8** does not in my mind "count" as an actual communication [QSO] due to a severely limited, canned script, which does not lend itself to emergency communication.
I share everyone prayers that 2021 will turn out to be a better year [for Field Day].
73,
Clement KM6OKZ

Selected August Contests & Special Events

The following contests and special events caught your editor's eye. This is by no means a complete listing. Please see QST or the ARRL website (www.arrl.org) for any details and QSL information.

222 MHz and Up Distance Contest August 1-2

Objective:
Work as many stations as possible on the 222 MHz through 241 GHz bands using any allowable mode. A station in a specific grid locator may be contacted from the same location only once on each band, regardless of mode.

10 GHz & Up – Round 1 August 15-16

The objective of 10 GHz and Up is for North American amateurs to contact as many amateur stations in as many different locations as possible in North America on bands from 10-GHz through Light. Amateurs are encouraged to operate from more than one location during this event. See the detailed rules for restrictions.

Rookie Roundup – RTTY August 16

Mission: To encourage newly-licensed operators ("Rookies") in North America (including territories and possessions) to operate on the HF bands and experience competitive Amateur Radio operating. Experienced operators ("Non-Rookies") are strongly encouraged to participate and help new operators – either on the air or in person.

Objective: Rookies exchange information with as many other stations as possible on the 80, 40, 20, 15, and 10 meter HF bands. Rookie entrants are encouraged to read "***HF Contesting – Good Practices, Interpretations and Suggestions***."

Pedro KE6MIL attending the July 10th club meeting on Zoom

Bruce Draper, AA5B, aa5b.corral@gmail.com

Contest Corral — August 2020

Check for updates and a downloadable PDF version online at **www.arrl.org/contest-calendar**.
Refer to the contest websites for full rules, scoring information, operating periods or time limits, and log submission information.

Start - Finish Date-Time		Date-Time		Bands	Contest Name	Mode	Exchange	Sponsor's Website
1	0001	2	2359	28	10-10 International Summer Contest, SSB	Ph	Name, mbr or "0," SPC	www.ten-ten.org
1	1200	1	2359	1.8-28	European HF Championship	CW Ph	RS(T), 2-digit year first licensed	lea.hamradio.si/~scc/euhf
1	1400	1	1800	144	WAB 144 MHz Low Power Phone	Ph	RS, serial, WAB square or country	wab.intermip.net
1	1800	2	0559	1.8-28	North American QSO Party, CW	CW	Name, state/DC/province/country	www.ncjweb.com
1	1800	2	1800	222 and up	ARRL 222 MHz and Up Distance Contest	CW Ph Dig	6-char grid square	www.arrl.org/222-mhz-and-up-distance-contest
2	1400	2	1700	3.5-14	SARL HF Phone Contest	Ph	RS, serial	www.sarl.org.za
4	0100	4	0159	1.8-50	Worldwide Sideband Activity Contest	Ph	RS, age group (OM, YL, or youth)	wwsac.com/rules.html
4	0100	4	0300	3.5-28	ARS Spartan Sprint	CW	RST, SPC, power	arsqrp.blogspot.com
5	1700	5	2000	144	VHF-UHF FT8 Activity Contest	Dig	4-char grid square	ft8activity.eu/index.php/en
6	1700	6	2100	28	NRAU 10-Meter Activity Contest	CW Ph Dig	RS(T), 6-char grid square	nrau.net/activity-contests
6	1900	6	2100	1.8-50	SKCC Sprint Europe	CW	RST, SPC, name, mbr or power	www.skccgroup.com
8	0000	9	2359	3.5-28	WAE DX Contest, CW	CW	RST, serial	www.darc.de/der-club/referate/referat-conteste/worked-all-europe-dx-contest/en
8	0800	8	1100	1.8-28	QRP ARCI European Sprint	CW	RST, SPC, mbr or power	qrparci.org
8	1200	9	2359	1.8-50	SKCC Weekend Sprintathon	CW	RST, SPC, name, mbr or "none"	www.skccgroup.com
8	1400	9	0400	1.8-144, 432	Maryland-DC QSO Party	CW Ph Dig	Entry class, county or SPC	w3vpr.org/mdcqsop
10	0000	10	0200	1.8-28	4 States QRP Group Second Sunday Sprint	CW Ph	RS(T), SPC, mbr or power	www.4sqrp.com
10	1200	10	1400	7	SARL Youth Sprint	Ph	RS, age	www.sarl.org.za
11	1500	13	1459	144	MMMonVHF 144 MHz Meteorscatter Sprint Contest	CW Ph Dig	Signal report	mmmonvhf.de/ctestinfo.php
12	0030	12	0230	3.5-14	NAQCC CW Sprint	CW	RST, SPC, mbr or power	naqcc.info/sprint
12	1700	12	2000	432	VHF-UHF FT8 Activity Contest	Dig	4-char grid square	ft8activity.eu/index.php/en
15	0000	16	1600	3.5-28	SARTG WW RTTY Contest	Dig	RST, serial	www.sartg.com
15	0600	16	2359	10 GHz to light	ARRL 10 GHz and Up Contest	CW Ph Dig	6-char Maidenhead locator	www.arrl.org/10-ghz-up
15	0800	16	0800	1.8-28	Russian District Award Contest	CW Ph	RS(T), RU district code or serial	rdaward.org/rdac1.htm
15	1200	16	1200	1.8-50	Keyman's Club of Japan Contest	CW	RST, JA prefecture/district code or continent	kcj-cw.com
15	1600	15	1759	1.8-50	Feld Hell Sprint	Dig	RST, mbr, SPC, 4-char grid	sites.google.com/site/feldhellclub
15	1800	16	0559	1.8-28	North American QSO Party, SSB	Ph	Name, state/DC/province/country	www.ncjweb.com
15	2100	16	2100	3.5-28	CVA DX Contest, CW	CW	RST, category	cvadx.org/regulamento
16	1400	16	1700	3.5-14	SARL HF Digital Contest	Dig	RST, serial	www.sarl.org.za
16	1700	16	2100	3.5-28	NJQRP Skeeter Hunt	CW Ph	RS(T), SPC, Skeeter number or power	www.qsl.net/w2lj
16	1800	16	2359	3.5-28	ARRL Rookie Roundup, RTTY	Dig	Name, 2-digit year first licensed, state/province/XE area/DX	www.arrl.org/rookie-roundup
16	1900	16	2359	1.8-28	Run for the Bacon QRP Contest	CW	RST, SPC, mbr or power	qrpcontest.com/pigrun
22	0400	24	0400	1.8-28	Hawaii QSO Party	CW Ph Dig	RS(T) + HI district or SPC	www.hawaiiqsoparty.org
22	1600	23	0400	3.5-28	Ohio QSO Party	CW Ph	RS(T), county or SPC	www.ohqp.org/index.php/rules
22	2100	23	2100	3.5-28	CVA DX Contest, SSB	Ph	RS, category	cvadx.org/regulamento
22	2300	23	0300	50	50 MHz Fall Sprint	CW Ph Dig	4-char grid square	svhfs.org
26	0000	26	0200	1.8-28	SKCC Sprint	CW	RST, SPC, name, mbr or power	www.skccgroup.com
29	0600	30	0559	3.5-28	ALARA Contest	CW Ph	RS(T), name	alara.org.au/contests
29	1200	30	0300	1.8-50	W/VE Islands QSO Party	CW Ph Dig	RS(T), USI/CISA island designation or SPC	usislands.org/qso-party-rules
29	1200	30	1159	3.5-28	SCC RTTY Championship	Dig	RST, 4-digit year first licensed	lea.hamradio.si/scc/rtty
29	1200	30	1200	3.5-28	YO DX HF Contest	CW Ph	RS(T), YO county or serial	www.yodx.ro
29	1200	30	1200	1.8-28	World Wide Digi DX Contest	Dig	4-char grid square	ww-digi.com
29	1400	29	2200	3.5-28	Kentucky State Parks on the Air	CW Ph Dig	KY park abbreviation or SPC	k4msu.com/kypota
29	1400	30	2000	3.5-50	Kansas QSO Party	CW Ph Dig	RS(T), county or SPC	ksqsoparty.org/rules/KSQPRules2019.pdf
30	1400	30	1700	3.5-14	SARL HF CW Contest	CW	RST, serial	www.sarl.org.za
31	1300	31	1400	1.8-28	QCX Challenge	CW	RST, name, SPC, rig	www.qrp-labs.com/party.html
31	1900	31	2000	1.8-28	QCX Challenge	CW	RST, name, SPC, rig	www.qrp-labs.com/party.html

There are a number of weekly contests not included in the table above. For more info, visit: **www.qrpfoxhunt.org**, **www.ncccsprint.com**, and **www.cwops.org**.

All dates refer to UTC and may be different from calendar dates in North America. Contests are not conducted on the 60-, 30-, 17-, or 12-meter bands. Mbr = Membership number. Serial = Sequential number of the contact. SPC = State, Province, DXCC Entity. XE = Mexican state. Listings in blue indicate contests sponsored by ARRL or *NCJ*. The latest time to make a valid contest QSO is the minute listed in the "Finish Time" column. *Data for Contest Corral is maintained on the WA7BNM Contest Calendar at* **www.contestcalendar.com** *and is extracted for publication in* QST *2 months prior to the month of the contest. ARRL gratefully acknowledges the support of Bruce Horn, WA7BNM, in providing this service.*

Available Gear

Denney N6HV: One roll 250 feet 14/2 clear speaker wire $30.00, [new, still in wrapper, old stock]. Various rolls of wire, big rolls; 8 gauge, shielded single pair and other gauges, good prices. Three-quarter-inch wide, flat, heavy, copper-braid, $1.00/ft; great for grounding.
Items Given to the Club for Donations: Multimeter, Micronta brand $5.00. HP 1706A oscilloscope, as is, $50. Various lengths of Ethernet cables, $0.25 each. Radio Shack Power Supply, 13.8 volt at 3 amps, $3.00. Swing arm desk lamp includes light bulb and other various items; $5.00 to $25.00.

July Meeting Minutes (submitted by President Denney)
At the July 10th meeting we had 20 check-ins to the "on-the-air-meeting" and 12 Zoom meeting attendees, with a generous overlap of those who checked-in to the "on-the-air" meeting net.

New business:

The results of the Monday Night Net contest check-ins have been posted to the K6MEP.org web site. Two members are tied for first place, Dave AI6VX and Robert KM6RSS.

President Denney made a call for volunteers to mentor people who are studying for their amateur radio license. Three club members have volunteered. These mentors will gladly help those studying for a license upgrade.

Old business:

President Denney encouraged everyone who participated in Field Day to submit their logs [to the ARRL], no matter how few contacts they made.

A presentation on "How Not To Do EME" was made by President Denney and is available on the K6MEP.org web site.

The meeting was adjourned at 10:46.

Upcoming FCC Exam Session Preparation (All those "local" within 50 mi. scheduled this year)

Thousand Oaks CA 91360

09/19/2020
Start/End Dates: 09/19/2020 - 10/17/2020
Times: 8:00am - Noon
# of Sessions: 5
Class level: General
Morse code offered: No
Pre register required: Yes
Fee: 0
Pre Study required: No
Class Type: Weekend/One Day
Exam offered: No
Sponsoring Club/Organization: Conejo Valley Amateur Radio Club
Instructor: KF6JQO
Contact: Kathryn Hunley K6VQN
Phone: (805) 218-3277
Email: k6vqn@arrl.net
Location: East Ventura County Sheriff's Station
2101 East Olsen Road
Thousand Oaks, CA 91360
Additional Information: A exam will be offered at the same location on October 18. Fee is $15.

Calabasas CA 91301

LICENSING CLASS

10/18/2020
Start/End Dates: 10/18/2020 - 10/18/2020
Times: 9am to 3pm
# of Sessions: 1
Class level: Technician
Morse code offered: Yes
Pre register required: Yes
Fee: $100
Pre Study required: Yes
Class Type: Weekend/One Day
Exam offered: Yes
Sponsoring Club/Organization: Goodkin Radio Classes
Instructor: K6YXH
Contact: Norm Goodkin K6YXH
Phone: (818) 613-2257
Email: norm@goodkin.net
Location: Agoura Hills/Calabasas Community Center
27040 Malibu Hills Road
Class Room
Calabasas, CA 91301
Additional Information: Register at http://hamclass.goodkin.net. Please obtain an FCC Registration Number (FRN) and use it to fill out a license application Form 605, downloaded from http://glaarg.org/glaarg-forms. Fill it out on your computer, print and sign it. Bring it to the class, along with a Drivers License or Passport for identification. Exam immediately after the class. If you don't pass, there will be test sessions on the following two Sunday mornings at 8am.

Thousand Oaks CA 91360

LICENSING CLASS

11/07/2020
Start/End Dates: 11/07/2020 - 12/05/2020
Times: 8:00am - Noon
# of Sessions: 5
Class level: Extra
Morse code offered: No
Pre register required: Yes
Fee: 0
Pre Study required: No
Class Type: Weekend/One Day
Exam offered: No
Sponsoring Club/Organization: Conejo Valley Amateur Radio Club
Instructor: K6VQN
Contact: Kathryn Hunley K6VQN
Phone: (805) 218-3277
Email: k6vqn@arrl.net
Location: East Ventura County Sheriff's Station
2101 East Olsen Road
Thousand Oaks, CA 91360
Additional Information: An exam will be offered at the same location as class on December 6. Fee is $15.

ON EXAM DAY BRING THE FOLLOWING ITEMS:

1. A legal photo ID (driver's license, passport).
2. When no photo ID is available, two forms of identification must be presented: a. non-photo ID/driver's license (some states still have them) b. birth certificate (must have the appropriate seal) c. social security card d. library card e. utility bill, bank statement or other business correspondence that specifically names the person; or a postmarked envelope addressed to the person at his or her current mailing address as it appears on the Form 605.
3. Students may bring any of the above items and/or a school ID, minor's work permit, report card, or a legal guardian may present a photo ID.
4. Bring your Social Security Number (SSN) or your FCC issued Federal Registration Number (FRN). VEC's are required by FCC to submit either your SSN or your FRN number with your license application form. If you prefer not to give your SSN, then you may use
5. Your FCC issued FRN, if you have one. For instructions on how to register your SSN with the FCC and receive a FRN, visit the FCC's FAQ page and the FCC's registration instructions page.
6. If applicable, bring the original and a photocopy of your current Amateur Radio license and any Certificates of Successful Completion of Examination (CSCE) you may hold from previous exam sessions. The photocopy(s) will not be returned.
7. Two number two pencils with erasers and a pen.
8. 7. A calculator with the memory erased and formulas cleared is allowed. You may not bring any written notes or calculations into the exam session. Slide rules and logarithmic tables are acceptable, as long as they're free of notes and formulas. Cell phone must be silenced or turned off during the exam session. The phones' calculator function may not be used.
9. Bring a check, a money order or cash to cover the exam session fee(s). Check the ARRL VEC's current exam fee. The fee is normally $15.00 for ARRL-sponsored tests.

Upcoming FCC Exam Test Sites **(within 25 miles of Ventura;** Due to the Coronavirus outbreak, please verify with your VE team that the exam session is being held.**)**

GLAARG is offering remote testing; see https://glaarg.org/remote-sessions/ **for details)**

CVARC Ham Exam Cancelled for August 9th

Trivia for August 2020

Did you know???

1. If you have onion breath, try eating parsley.
2. July 1930; work begins on the Hoover Dam in Nevada.
3. The Whoopee cushion dates back to early Roman days?

DE

Dana KG6WXE

Calendar August 2020

3: K6MEP Monday Night Net
4: ACS/ARES Tuesday Night Net
10: K6MEP Monday Night Net
11: ACS/ARES Tuesday Night Net
14: Club Meeting (held on the Sulphur Mountain repeater, on 145.200 MHz with a minus offset and a PL of 127.3 Hz. Please join us at 19:00 (7:00 pm) and say hello to your fellow club members and tell us about what you have been doing on amateur radio. There will be a Zoom video meeting at 20:30 (AG6AG will present FT8)
17: K6MEP Monday Night Net
18: ACS/ARES Tuesday Night Net
24: K6MEP Monday Night Net
25: ACS/ARES Tuesday Night Net
31: K6MEP Monday Night Net

Repeated from June's Keyer

From: main@vc-acs.groups.io [mailto:main@vc-acs.groups.io] On Behalf Of Sheldon, Stuart - AG6AG

Updated per email 07/01/20:

Just wanted to update everyone about the Auxiliary _Bored_ Meeting. The participation in these gatherings has been remarkable. To date we have over 600 check-ins with over 100 individual operators participating over the last several weeks. We now link the Bozo Repeater with Paul's (WD6EBY) repeater network for the 09:00 (M-Sat) and the 21:00 meetup (Saturday only but not on July 4th). Many thanks to Paul and the PVARC repeater group.

The gatherings take place 6 days a week at 09:00, Monday through Saturday and 21:00 on Saturday (not on 7/4).

The Bozo Repeater operates with the following settings:

Frequency: 147.885MHz
Offset: -
PL: 127.3

Please join the crowd!

Stu
AG6AG

K6MEP Monday Night Net Script

QST- QST- QST. This is _____(Name)_____(Call Sign), with the Ventura County Amateur Radio Club Net. If there is any station with EMERGENCY or PRIORITY Traffic that needs the immediate use of this frequency, please come now.

Hearing none, the following is a QST. This is _____(Name) _____ (Call Sign), tonight's net control station for the Ventura County Amateur Radio Club Net. If, at any time, during tonight's net, anyone needs this frequency for emergency or priority traffic, please call net control, and we will respond appropriately.

This is a directed net, open to all amateur radio operators and is sponsored by K6MEP, the call sign for VCARC. This net begins each Monday evening at 20:00 local time on the WD6EBY linked repeater system.

The primary frequency of this net is 145.200 MHz with a minus offset and a PL of 127.3 Hz. If the repeater should fail for any reason, we can use South Mtn. repeater on 146.385 MHz with a positive offset and a PL of 127.3 Hz as backup.
All amateurs are welcome to check in after the following announcements.
A roundtable will follow the check-ins. A rag chew session may follow the formal net.

K6MEP, the Ventura County Amateur Radio Club, meets at 19:30 hours on the second Friday of each month at The Dudley House, 197 N Ashwood Ave, Ventura, CA. The next meeting date is Friday _____ (insert date). We urge any non-members interested in the VCARC to contact the club Secretary, Phil Cohen WA6BUZ or send an email to him at K6MEP@qsl.net. Non-members interested in amateur radio are welcome to attend our meetings.
When you check-in, please give your call sign, name and if you are a VCARC member. If you are not a member of the club, please include your QTH or location.

(Check-ins completed): Hearing no other check-ins, we will now begin with our Roundtable
****

Any last comments? ******** Any late, missed, or visitor check-ins?
Please check-in now.

Hearing no new check-ins does anyone have anything else they would like to add to tonight's net?
Hearing none;
(Closing): This concludes the VCARC weekly net at _____hours. Thank you for your interest and participation. Also thanks to Paul Strauss, WD6EBY, for the use of the repeater for our K6MEP net.
73, this is _____ call sign), tonight's VCARC net control, signing off.

Eric Casey, KC2ERC, ecasey@arrl.org; www.arrl.org/hamfests-and-conventions-calendar

Convention and Hamfest Calendar

Abbreviations

Spr = Sponsor
Tl = Talk-in frequency
Adm = Admission

Because of the COVID-19 pandemic, many organizations are canceling or rescheduling events. This is the information we had at the time we went to press. We suggest you contact the event organizer to confirm. — *Ed.*

ROCKY MOUNTAIN DIVISION CONVENTION

August 7 – 9, Parker, CO

D H Q R S

7 AM. *Spr:* HamCon Colorado. CU Denver South, 10035 S Peoria St. *Tl:* RMHam "Wide" (DRM) and Colo Connection. HamCon Colorado *Adm:* Advance $40, door $50. **www.hamconcolorado.com**

Florida (Milton) — July 10 – 11 D H R T V

Fri. noon – 7 PM, Sat. 8 AM – 1 PM. *Spr:* Milton ARC. Santa Rosa County Auditorium, 4350 Spikes Way. *Tl:* 145.49 (100 Hz). *Adm:* $6. **www.miltonarc.org**

Illinois (Carlinville) — Aug. 1 D F H Q R S T V

6 AM – 12:30 PM. *Sprs:* Macoupin County ARC, Montgomery County ARC, Okaw Valley ARC, Sangamon Valley ARC. Macoupin County Fairgrounds, 21149 State Rte. 4. *Tl:* 444.25 (103.5 Hz). *Adm:* $5. **www.k9mce.com**

Illinois (Paloma) — Aug. 8 D F H R T V

8 AM – noon. *Spr:* West Illinois ARC. Paloma Shelter House, 1825 E. 1635th St. *Tl:* 147.03 (103.5 Hz). *Adm:* $7. **http://www.w9awe.org/Swapfest.pdf**

Illinois (Peotone) — Aug. 2 D F H R S T V

6 AM – 1 PM. *Spr:* Hamfesters RC. Will County Fairgrounds, 710 S. West St. *Tl:* 146.52, 442.45 (114.8 Hz). *Adm:* Advance $8, door $10. **www.hamfesters.org**

Indiana (Angola) — Aug. 8 F H R T

8 – 11 AM. *Spr:* Land of Lakes ARC, LLC. Gateway Community Church, 225 N. Gerald Lett Ave. *Tl:* 147.18 (131.8 Hz). *Adm:* $5.

Indiana (Auburn) — July 11 D H T

9 AM – 3 PM. *Spr:* Northeastern Indiana ARA. Auburn Cord Duesenberg Museum, 1600 S. Wayne St. *Tl:* 147.015. *Adm:* $5, children under 12 are free. **www.w9ou.org**

IOWA STATE CONVENTION

August 8 – 9, Central City, IA

D F H Q R S T V

Sat. 8 AM – 5 PM, Sun. 8 AM – 3 PM. *Spr:* Cedar Valley ARC. Linn County Fairgrounds, 201 Central City Rd. *Tl:* 146.52 (192.8 Hz). *Adm:* $10. **www.w0gq.org/hamfest**

Kentucky (Lexington) — Aug. 8 D F H Q R S V

7 AM – 3 PM. *Spr:* Bluegrass ARS. Jackpot Bingo, 1230 Eastland Dr. *Tl:* 146.76. *Adm:* Advanced $5, door $6. **www.bluegrassars.org**

Louisiana (Slidell) — July 24 – 25 D F H R S V

Fri. 2 – 5 PM, Sat. 8 AM – 2 PM. *Spr:* Ozone ARC. Slidell Auditorium, 2056 2nd St. *Tl:* 147.27 (114.8 Hz). *Adm:* $5. **www.w5sla.net**

Michigan (Escanaba) — Aug. 1 D F H R S

9 AM – 2 PM. *Spr:* Delta County ARS. Bay de Noc Community College, 2001 N. Lincoln Rd. *Tl:* 147.15 (100 Hz). *Adm:* $5. **www.k8pl.org**

Michigan (Gladwin) — July 25 D F R

10 AM – 3 PM. *Spr:* Gladwin Area ARC. Gladwin City Park Activity Center, 240 City Park St. *Tl:* 147.18 (173.8 Hz). *Adm:* $5.

Michigan (Temperance) — July 11 D F H R

9 AM – 1 PM. *Spr:* Northwest Ohio Black Swamp Radio Society. St. Luke's Lutheran Church, 1690 W. Stearns Rd. *Tl:* 146.42. *Adm:* $5.

Minnesota (Roseville) — July 11 F R T V

8 AM – noon. *Spr:* Galilee Lutheran Church, 145 N. McCarrons Blvd. *Tl:* 145.17. *Adm:* Free. **www.magicrepeater.net/fest.htm**

Missouri (O'Fallon) — Aug. 9 D F H R V

7 AM – 12 PM. *Spr:* St. Charles ARC. Elks Lodge, 1163 Tom Ginnever Ave. *Tl:* 146.67, 145.33. *Adm:* $5 for one ticket, $20 for five tickets. **www.wb0hsi.org/hamfest**

Missouri (Warrensburg) — July 18 D H R S T

8 AM – 1 PM. *Sprs:* WAARCI, Johnson County ARES, Mo-Kan Council. Johnson County Fairground Rural Youth Community Center. *Tl:* 146.88 (107.2 Hz) *Adm:* Free. **www.waarci.org**

MONTANA STATE CONVENTION

July 16 – 19, Essex, MT

D F H Q R S T V

8 AM – 8 PM. *Spr:* GFAARC. Glacier Meadow RV Park, 15735 US Hwy. 2. *Tl:* 146.52. *Adm:* Advance $15, door $20.

New Jersey (Augusta) — July 12 D F H Q R T V

8 AM – 2 PM. *Spr:* Sussex County ARC, Inc. Sussex County Fairgrounds, 37 Plains Rd. *Tl:* 147.3 (151.4 Hz). *Adm:* $8. **www.scarcnj.org/hamfest.html**

New York (Alexander) — July 18 D F H R T V

6 AM. *Spr:* Lancaster ARC. Alexander Fire Department Grounds, 10708 Alexander Rd. (Rte. 98). *Tl:* 147.285 (141.3 Hz). *Adm:* $8. **www.w2so.org**

New York (Deerfield) — July 26 D F H R T V

8 AM – noon. *Spr:* Utica ARC. Deerfield Fire Department Grounds, 5476 Trenton Rd. *Tl:* 146.76. *Adm:* $5. **www.uticaarc.com**

New York (Syracuse) — July 11 D F H R T V

7:30 AM – 12:30 PM. *Spr:* Radio Amateurs of Greater Syracuse. Lakeside Fire Station, 1002 State Fair Blvd. *Tl:* 146.91/31 (103.5 Hz). *Adm:* $5. **www.ragsclub.org**

A = AUCTION
D = DEALERS / VENDORS
F = FLEA MARKET
H = HANDICAP ACCESS
Q = FIELD CHECKING OF QSL CARDS
R = REFRESHMENTS
S = SEMINARS / PRESENTATIONS
T = TAILGATING
V = VE SESSIONS

Emergency and Volunteer Training

Some excellent emergency and volunteer training is available through the American Red Cross of Ventura County, FEMA and the American Radio Relay League.

Red Cross Courses

The following is a list of locally available Red Cross courses and a current schedule of classes over the next two months. Enroll by calling the Red Cross Chapter House at 805-987-1514 Ext 320 leaving your name, course code and telephone number. If you are interested in a class not currently scheduled call to be placed on a waiting list for the next scheduled date.

Note: The classes **Fulfilling Our Mission** and **Introduction to Disaster Services** are required for all Red Cross classes if you are not currently registered as a Red Cross Volunteer.

For training class registration, call: 805-987-1514 Ext 320.

Course schedule and descriptions:

http://www.arcventura.org/DSCourseDescriptions.html

http://www.arcventura.org/contact_us.html

COLLABORATING TO ENSURE EFFECTIVE SERVICE DELIVERY(ARC3089-4)
COMMUNITY SERVICES OVERVIEW (ARC 3068-1)
DISASTER ASSESSMENT (ARC 3067-1)
DISASTER HEALTH SERVICES: OVERVIEW (3076-1F)
DISASTER HEALTH SERVICES SIMULATION (ARC 3076-2F)
DISASTER MENTAL HEALTH SERVICES (ARC 3077-1F)
DISASTER MENTAL HEALTH: AN OVERVIEW (ARC 3077-2)
DISASTER WELFARE INQ.:CONNECTING YOUR COMMUNITY(ARC 3085-1)
DISASTER WELFARE INQUIRY SIMULATION (ARC 3085-2)
EMERGENCY OPS CENTER/INCIDENT COMMAND LIAISON (ARC 3089-5)
ERVs: READY, SET, ROLL (ARC 3068-4)
FAMILY SERVICES: PROVIDING EMERGENCY ASSISTANCE (ARC 3072-1)
FINANCIAL STATISTICAL INFORMATION MANAGEMENT (ARC 3078-2)
HUMAN RESOURCES IN DISASTER (ARC 3087-3F)
LOGISTICS: AN OVERVIEW (ARC 3087-1)
LOGISTICS SIMULATION (ARC 3071-2)
MANAGING TOTAL DIVERSITY
MASS CASUALTY DISASTER (ARC 3079 1F)
PUBLIC AFFAIRS IN DISASTER 1 (ARC 3080 1F)
SAFE FOOD HANDLING WORKSHOP
SHELTER OPERATIONS (ARC 3068-11)
SHELTER SIMULATIONS (ARC 3068-12)
WORKING WITH TOTAL DIVERSITY

Scheduled Red Cross Classes

For training class registration, call: 805-987-1514
Please try to register for classes a week before the class is being offered

The following free **FEMA Independent Study Courses** are recommended. There are several other FEMA courses available; see the other courses at http://training.fema.gov/is

IS-5.a An Introduction to Hazardous Materials - (10/31/2013)
IS-10.a **Animals in Disasters: Awareness and Preparedness** - (10/2/2015)
IS-11.a Animals in Disasters: Community Planning - (10/2/2015)
IS-15.b **Special Events Contingency Planning for Public Safety Agencies** - (10/31/2013)
IS-20.19 Diversity Awareness Course 2019 - (1/30/2019)
IS-21.17 **Civil Rights and FEMA Disaster Assistance** - (1/25/2017))
IS-26 Guide to Points of Distribution - (8/11/2010)
IS-27 **Orientation to FEMA Logistics** - (10/31/2013)
IS-29 Public Information Officer Awareness - (10/31/2013)
IS-33.19 FEMA Initial Ethics Orientation 2019 - (1/30/2019)
IS-35.19 FEMA Safety Orientation 2019 - (1/30/2019)IS-36 **Multi-hazard Planning for Childcare** - (10/31/2013)
IS-42 **Social Media in Emergency Management** - (10/31/2013)
IS-75 Military Resources in Emergency Management - (2/25/2011)
IS-100.b **Introduction to Incident Command System, ICS-100** - (10/31/2013)
IS-111.a Livestock in Disasters - (10/31/2013)
IS-144 **Telecommunicators Emergency Response Taskforce (TERT) Basic Course** - (10/31/2013)
IS-162 Hazard Mitigation Floodplain Management in Disaster Operations - (11/16/2016)
IS-200.b ICS for Single Resources and Initial Action Incidents - (10/31/2013)
IS-230.d **Fundamentals of Emergency Management** - (12/16/2013)
IS-235.c Emergency Planning - (12/15/2015)
IS-240.b **Leadership and Influence** - (6/16/2014)
IS-241.b Decision Making and Problem Solving - (3/31/2014)
IS-242.b **Effective Communication** - (3/31/2014)
IS-244.b Developing and Managing Volunteers - (3/29/2013)
IS-250.a **Emergency Support Function 15 (ESF15) External Affairs: A New Approach to Emergency Communication and Information Distribution** - (5/7/2012)
IS-271.a Anticipating Hazardous Weather & Community Risk, 2nd Edition - (10/31/2013)
IS-288.a **The Role of Voluntary Organizations in Emergency Management** - (2/12/2015)
IS-315 CERT Supplemental Training: The Incident Command System - (8/13/2013)
IS-317 **Introduction to Community Emergency Response Teams** - (6/26/2014)
IS-320 Wildfire Mitigation Basics for Mitigation Staff - (10/31/2013)
IS-322 **Flood Mitigation Basics for Mitigation Staff** - (10/31/2013)
IS-323 Earthquake Mitigation Basics for Mitigation Staff - (10/31/2013)
IS-325 **Earthquake Basics: Science, Risk, and Mitigation** - (10/31/2013)
IS-326 Community Tsunami Preparedness - (10/31/2013)
IS-366.a **Planning for the Needs of Children in Disasters** - (12/9/2015)
IS-368 Including People With Disabilities & Others With Access & Functional Needs in Disaster Operations - (2/20/2014)
IS-393.a **Introduction to Hazard Mitigation** - (10/31/2013)
IS-405 Overview of Mass Care/Emergency Assistance - (12/10/2013)
IS-454 **Fundamentals of Risk Management** - (10/31/2013)
IS-546.a Continuity of Operations Awareness Course - (10/31/2013)
IS-547.a **Introduction to Continuity of Operations** - (10/31/2013)
IS-559 Local Damage Assessment - (10/31/2013)
IS-700.b An Introduction to the National Incident Management System - (6/25/2018)
IS-775 **EOC Management and Operations** - (8/6/2008)
IS-800.b National Response Framework, An Introduction - (1/20/2017)
IS-815 **ABCs of Temporary Emergency Power** - (12/27/2016)
IS-906 Workplace Security Awareness - (10/31/2013)
IS-907 Active Shooter: What You Can Do - (12/28/2015)
IS-909 **Community Preparedness: Implementing Simple Activities for Everyone** - (10/31/2013)
IS-910.a Emergency Management Preparedness Fundamentals - (10/19/2012)
IS-915 **Protecting Critical Infrastructure Against Insider Threats** - (7/10/2013)
IS-916 Critical Infrastructure Security: Theft and Diversion – What You Can Do - (10/31/2013)
IS-922 **Applications of GIS for Emergency Management** - (10/31/2013)
IS-951 DHS Radio Interoperability - (9/22/2016)
IS-2200: Basic Emergency Operations Center Functions - (5/17/2019)
IS-2500 National Prevention Framework, an Introduction - (3/27/2018)
IS-2600 National Protection Framework, An Introduction - (3/27/2018)
IS-2700 National Mitigation Framework, an Introduction - (3/27/2018)
IS-2900.a National Disaster Recovery Framework (NDRF) Overview - (7/11/2018)

The **ARRL** offers several on-line courses. The courses listed here are recommended for those involved in disaster and emergency service. See these and other courses at the ARRL web site.

Introduction to Emergency Communication EC-001
HF Digital Communications EC-005
PR-101: ARRL Public Relations (EC-015)
Public Service and Emergency Communications Management for Radio Amateurs- EC-016

There are some costs with the ARRL courses but discounts and occasional scholarships are available to ARRL members. See ***www.ARRL.org*** for details and enrollment.

ARES-ACS Frequency Updates

The Tuesday night Ventura County ARES/ACS Net is held on the WD6EBY Sulphur Mt. Repeater. Local nets are 7:00 to 7:30 PM; County Net starts at 7:30 on WD6EBY Sulphur Mt. Repeater 145.200 (-) PL 127.3 / 445.560 Mhz(-) PL 141.3

Good Frequencies to have pre-programmed into your radios...

Area 1 Simi Valley – K6ERN 146.805 Mhz (-) PL 100.0
Area 2 Conejo Valley, T. Oaks, Newbury Park – N6JMI 147.885 Mhz (-) PL127.3 BOZO
Area 3 Camarillo, Somis,– K6ERN 147.915 Mhz (-) PL 127.3
Area 4 Oxnard, Port Hueneme, NBVC – WB6YQN 146.970 Mhz (-) PL 127.3
Area 5 Ojai Valley – N6FL 145.400 Mhz (-) PL 114.8
Area 6 Ventura City – WA6ZSN 146.385 Mhz (+) PL 127.3
Area 7 Santa Paula, Fillmore, Piru – WA6ZSN 146.385 Mhz (+) PL 127.3
Area 8 Moorpark, Santa Rosa Valley – K6ERN 145.460 Mhz (-) PL 127.3
County-Wide – WD6EBY 145.200 (-) PL 127.3
ACS Portable – VCACS/p 144.930/147.585 Mhz PL 127.3
WD6EBY SP 145.420 Mhz (-) PL 127.3

Other Good Area Frequencies ...

AA6DP 147.090 Mhz (+) No PL Catalina
K0AKS 147.150 Mhz(-) PL127.3 TOaks
K6CPT DCS 145.300 Mhz (-) PL100.0 LA DCS
K6CPT DCS 147.270 Mhz (-) PL100.0 LA DCS
K6DCS DCS22 147.225 Mhz (+) PL 94.8 LA DCS
K6ERN 146.880 Mhz (-) PL 127.3 SMRA Red Mt.
K6ERN 147.765 Mhz (-) PL 127.3 Olivas Park / SMRA
K6TZ 146.790 Mhz (-)PL131.8 SBARC
KB6C 147.735 Mhz (-) PL 100.0 Oat Mt / MMRA

K4NGL 145.360 Mhz (-) PL 156.7 Kimberly Peak
N6EVC 146.850 Mhz (-) PL 94.8 Rasnow
N6FDR 145.260 Mhz (-) PL 100.0 Malibu
W6AAX 147.180 Mhz (+) PL 186.2 Verdugo Peak
W6GRG 146.940 Mhz (-) PL 127.3 Simi DSW Repeater
W6YJO 145.180 Mhz (-) PL 131.8 Sta Ynez
WA6FGK 146.640 Mhz (-) PL 127.3 Simi Valley
WA6PPS 147.300 Mhz (-) PL 110.9 L.A.City ACS
WB6OBB 147.000 Mhz (+) PL 131.8 Sta Barbara
WD6EBY 145.240 MHz (-) PL 127.3 Chatsworth Pk

Due to assignment and coordination of several D-Star Repeaters, TASMA, the southern California Two meter amateur frequency coordination body, has had to re-align several frequencies. Among these changes are the channelization (15 KHz spacing) of the 145.5 - 145.6 simplex allocation and reassignment of several frequencies from simplex to other uses.

None of the local Ventura County repeaters are directly affected; however several previous simplex frequencies are now in use either as repeater inputs or outputs. **New County ARES Packet frequency is 145.050 Mhz**;

Ventura County ARES-ACS simplex frequencies have been re-assigned as follows:

Area 1 Simi Valley – 145.510 Mhz (S)
Area 2 Conejo Valley, T.O., Newbury Pk – 146.445 Mhz (S)
Area 3 Camarillo, Somis – 146.550Mhz (S)
Area 4 Oxnard, Port Hueneme, NBVC – 146.595Mhz (S)
Area 5 Ojai Valley – 145.555Mhz (S)
Area 6 Ventura City – 147.510Mhz (S)
Area 7 Santa Paula, Fillmore, Piru – 145.540 Mhz (S)
Area 8 Moorpark – 146.535Mhz (S)
County ARES Simplex – 145.615 Mhz (S)
National Simplex – 146.520Mhz(S)

Ventura County ARES / ACS Emergency Coordinators

ACS RO/ARES DEC: Rob Hanson, W6RH, Email: w6rh@arrl.net
Assist ACS RO/Deputy DEC: Rick Tate, KQ6NO Email: kq6no@arrl.net

Area 1 Simi Valley EC: Steve King, KE6WEZ Email: ke6wez@gmail.com
Area 2 TO, Conejo Valley EC: Zack Cohen, N6PK , Email: n6pk@arrl.net
Area 3 Camarillo, Somis EC: Avi Carmi, K6AVI Email: avi@carmi.us
Area 4 Oxnard, Hueneme, Mugu EC:Hovan Salibian, KI6BQL Email: ki6bql@arrl.net
Area 5 Ojai EC: Wayne Francis, W6OEU Email: w6oeu@arrl.net
Area 6 City of Ventura EC (acting): Grant Mohr, KG6SFW, E-mail gmohr12@hotmail.com
Area 7 Santa Paula, Fillmore, Piru EC: Grant Mohr, KG6SFW, E-mail gmohr12@hotmail.com
Area 8 Moorpark, Santa Rosa Valley EC: Marc Hanley KM6B, Email: km6b@arrl.net

ACS/ARES Training

Rob Hanson Ventura County ACS Radio Officer, Ventura County ARES District Emergency Coordinator

Emergency Telecommunications Skills

(excerpted from the IARU Emergency Telecommunications Guide, pp. 17 – 21)

Introduction

An emergency communicator must do his or her part to get every message to its intended recipient, quickly, accurately, and with a minimum of fuss. A number of factors can affect your ability to do this, including your own operating skills, the communication method used, a variety of noise problems, the skills of the receiving party, the cooperation of others, and adequate resources. Life–and-death communications are not part of our daily experience. Most of what we say and do each day does not have the potential to severely impact the lives and property of hundreds or thousands of people. In an emergency, any given message can have huge and often unintended consequences. An unclear message, or one that is modified, delayed, mis-delivered or never delivered at all can have disastrous results.

Listening

Listening is at least 50% of communication. Discipline yourself to focus on your job and "tune out" distractions. If your attention drifts at the wrong time, you could miss a critical message. Listening also means avoiding unnecessary transmissions. A wise person once said, "A man has two ears and one mouth. Therefore he should listen twice as much as he talks." While you are asking, "When will the beds arrive?" for the fourth time that hour, someone else with a life and death emergency might be prevented from calling for help. Sometimes the job of listening is complicated by noise. You might be operating from a noisy location, the signal might be weak or other stations may be causing interference. In each of these cases, it helps to have headphones to minimize local noise and help you concentrate on the radio signal. Any veteran of a major emergency situation will tell you, headphones are one of the "must have" items in emergency telecommunication operations. Digital Signal Processing (DSP), filters and other technologies may also help to reduce radio noise and interference.

Microphone Techniques

Even something as simple as using your microphone correctly can make a big difference in intelligibility. For optimum performance, hold the microphone close to your cheek, and just off to the side of your mouth. Talk across, rather than into, the microphone. This will reduce breath noises and "popping" sounds that can mask your speech. Speak in a normal, clear, calm voice. Raising your voice or shouting can result in over- modulation and distortion, and will not increase volume at the receiving end. Speak at a normal pace—rushing your words can result in slurred and unintelligible speech. Pronounce words carefully, making sure to enunciate each syllable and sound. Radios should be (Cont. on page 16)

Emergency Telecommunications Skills (Cont. from page 15)

adjusted so that a normal voice within 2 inches of the microphone element will produce full modulation. If your microphone gain is set so high that you can achieve full modulation with the microphone in your lap, it will also pick up extraneous background noise that can mask or garble your voice. A noise-canceling microphone is a good choice since it blocks out nearly all unwanted background noise, and is available in handheld and headset boom configurations. Headset boom microphones are becoming less expensive and more popular, but care should be taken to choose one with a cardioid or other noise-canceling type element. Many low-cost headset boom microphones have omni-directional elements, and will pick up extraneous noise. "Voice operated transmission" (VOX) is not recommended for emergency communication. It is too easy for background noise and off-air operator comments to be accidentally transmitted, resulting in embarrassment or a disrupted net. Use a hand or foot switch instead. When using a repeater, be sure to leave a little extra time between pressing the push-to- talk switch and speaking. A variety of delays can occur within a system, including CTCSS decode time, and transmitter rise time. Some repeaters also have a short "kerchunk" timer to prevent brief key-ups and noise from keying the transmitter. It also gives time for some handhelds to come out of the "power-saver" mode. Leaving extra time is also necessary on any system of linked repeaters, to allow time for all the links to begin transmitting. Momentary delay in speaking after keying up will ensure that your entire message is transmitted, avoiding time- wasting repeats for lost first words. Lastly, pause a little longer than usual between transmissions any time there is a possibility that other stations may have emergency traffic to pass. A count of "one, one thousand" is usually sufficient.

Brevity & Clarity

Each communication should consist of only the information necessary to get the message across clearly and accurately. Extraneous information can distract the recipient and lead to misinterpretation and confusion. If you are the message's author and can leave a word out without changing the meaning of a message, leave it out. If the description of an item will not add to the understanding of the subject of the message, leave it out. Avoid using contractions within your messages. Words like "don't" and "isn't" are easily confused. If someone else has drafted the message, work with the author to make it more concise. Make your transmissions sound crisp and professional, like the police and fire radio dispatchers and the air traffic controllers. Do not editorialize, or engage in chitchat. An emergency net is no place for "Hi Pablo, long time no hear", "Hey, you know that rig you were telling me about last month...." or any other non-essential conversation. Be sure to say exactly what you mean. Use specific words to ensure that your precise meaning is conveyed. Do not say, "That place we were talking about," when "Richards School" is what you mean. Using non-specific language can lead to misunderstandings and confusion. Communicate one complete subject at a time. Mixing different subjects into one message can cause misunderstandings and confusion. If you are sending a list of additional food supplies needed, keep it separate from a message asking for more sand bags. Chances are that the two requests will have to be forwarded to different locations. If combined, one request will be lost. (Cont. on page 17)

Emergency Telecommunications Skills (Cont. from page 16)

Plain Language

As hams, we use a great deal of "jargon" (technical slang) and specialized terminology in our daily conversations. Most of us understand each other when we do, and if we do not on occasion it usually makes little difference. In an emergency, however, the results can be much different. A misunderstood message could cost someone's life.

Not everyone involved in an emergency communication situation will understand our slang and technical jargon. Even terms used by hams vary from one region to another, and non- hams or new hams will have no knowledge of most of our terminology. Hams assisting from another region might understand certain jargon very differently from local hams.

For these reasons, all messages and communications during an emergency should be in plain language. "Q" signals (except in CW communication or where required for international communications where there is a language barrier), 10 codes and similar jargon should be avoided. The one exception to this is the list of standard "pro-words" (often called "pro-signs") used in Amateur traffic nets, such as "clear", "say again all after" and so on.

Avoid words or phrases that carry strong emotions. Most emergency situations are emotionally charged already, and you do not need to add to the problem. For instance, instead of saying, "horrific damage and people torn to bits," you might say "significant physical damage and serious personal injuries."

And please watch your speed of speech. It should be at a normal rate. Many times emergency operators get too excited and talk very fast, making it hard for receiving stations to understand.

Phonetics

Certain words in a message may not be immediately understood. This might be the case with an unusual place name, such as "Franconia" or an unusual last name, like "Smythe." The best way to be sure it is understood correctly is to spell it. The trouble is, if you just spell the word using letters, it might still be misunderstood, since many letters sound alike at the other end of a radio circuit. "Z" and "C" in American English are two good examples. For that reason, radio communicators often use "phonetics." You should determine which phonetics are commonly used in your area and use them.

To reduce requests to repeat words, use phonetics anytime a word has an unusual or difficult spelling, or may be easily misunderstood. Do not spell common words unless the receiving station asks you to. In some cases, they may ask for the phonetic spelling of a common word to clear up confusion over what has been received. Standard practice is to first say the word, say "I spell," and then spell the word phonetically. This lets the receiving station know you are about to spell the word he just heard.

Several different phonetic alphabets are in common use, but most hams and public safety agencies use the ITU Phonetic Alphabet, and others use military alphabets. Many hams like to make up their own phonetics, especially as a memory aid for call signs, and often with humorous results. This practice has no place in emergency communication. In poor conditions, unusual phonetic words might also be misunderstood. We need to be sure that what we say is always interpreted exactly as intended— this is why most professional communicators use standardized phonetics. (Cont. on page 18)

Emergency Telecommunications Skills (Cont. from page 17)

Alfa, Bravo, Charlie, Delta, Echo, Foxtrot, Golf, Hotel, India, Juliet, Kilo, Lima, Mike, November, Oscar, Papa, Quebec, Romeo, Sierra, Tango, Uniform, Victor, Whiskey, X-ray, Yankee and Zulu.

Pro-words

Pro-words, called "pro-signs" when sent in Morse code or digital modes, are procedural terms with specific meanings. ("Pro" is short for "procedural.") They are used to save time and ensure that everyone understands precisely what is being said.

Some pro-words are used in general communication, others while sending and receiving formal messages. The usage and meaning of some pro-words in other services, such as police, fire or military, may differ from amateur radio usage.

Amateurs should check with experienced amateur radio emergency communicators in their own area to determine if pro-words are used and what they mean in the local usage.

Tactical Call Signs

If legally allowed in your country, tactical call signs can identify the station's location or its purpose during an event, regardless of who is operating the station. This is an important concept. The tactical call sign allows you to contact a station without knowing the call sign of the operator. It virtually eliminates confusion at shift changes or at stations with multiple operators.

Tactical call signs should be used for all emergency nets and public service events if there are more than just a few participants. If one does not already exist, the Net Control Station (NCS) may assign the tactical call sign as each location is "opened." Tactical call signs will usually provide some information about the location or its purpose. It is often helpful if the tactical call signs have a meaning that matches the way in which the served agency identifies the location or function.

To be effective, a tactical call sign, once assigned, should be used consistently (i.e., don't use EOC" one time and "Command" the next). A list of tactical callsigns and the locations or functions to which they are assigned should be made known to all who might make calls to or receive calls from each such location or function.

Calling with Tactical Call Signs

If you are at "Aid 3" during a directed net and want to contact the net control station, you would say "Net, Aid 3" or, in crisper nets (and where the NCS is paying close attention),
simply "Aid 3". If you had emergency traffic, you would say "Aid 3, emergency traffic," or for priority traffic "Aid 3, priority traffic." Notice how you have quickly conveyed all the information necessary, and have not used any extra words.

If you have traffic for a specific location, such as Firebase 5, you would say "Aid 3, priority traffic for Firebase 5." This tells the NCS everything needed to correctly direct the message.

If there is no other traffic holding, the NCS will then call Firebase 5 with, "Firebase 5, call Aid 3 for priority traffic." Note that no call signs have been used - so far...

Station Identification

In addition to satisfying your national administration's amateur rules, proper station identification is essential to promoting the efficient operation of a net. In the United States the
amateur rules require that you identify at ten-minute intervals during a conversation and at the end of your last transmission. ... (Cont. on page 19)

Emergency Telecommunications Skills (Cont. from page 18)

A Review of Habits to Avoid

- Thinking aloud on the air: “Ahhh, let me see. Hmm. Well, you know, if...”
- On-air arguments, criticism, or rambling commentaries
- Shouting into your microphone
- “Cute” phonetics
- Identifying every time you key or un-key the mic
- Using “10” codes, Q-signals on phone, or anything other than “plain language”
- Speaking without planning your message in advance
- Talking just to pass the time.

(Emphasis, highlights, underlines by K6OLI)

Original text and further details available at IARU Emergency Telecommunications Guide, 201673,Oliver K6OLI

ARRL offers online training for hams who want to participate in the Amateur Radio Emergency Service.

The time for training is before a disaster...not during one.

The former Amateur Radio Emergency Communications (AREC) series of three training courses has been reconfigured into two courses: An introductory course and a course for leaders and managers.

Introduction to Emergency Communication (#EC-001)

Revised in 2018, this is an update of the former Level 1 course. It is designed to provide basic knowledge and tools for hams who want to serve as a Public Service volunteer. It provides an opportunity for non-hams who rely on communications in emergency situations to learn about Amateur Radio and its unique role in emergencies.

For start dates, registration deadlines and more visit www.arrl.org/online-course-catalog

Public Service and Emergency Communications Management for Radio Amateurs (#EC-016)

Launched in 2010, this course is designed for Amateur Radio operators who will be in leadership and managerial roles, organizing other volunteers to support public service activities and communications emergencies. Participants will learn how radio amateurs prepare to support local community events and, when working in coordination with governmental and emergency response organizations, how to deploy their services. This is a self-study course. For more information and to register visit www.arrl.org/online-course-catalog.

PR-101: ARRL Public Relations (EC-015)

This is a basic training course for PIOs and anyone interacting with the media and promoting Amateur Radio.

This course is designed to give hams a quick overview in public relations activities. It uses the skills of experts in various aspects of public relations to provide volunteer Public Information Officers with the basic skills and expectations that a PIO needs to know to be effective in their home region.

PR-101 covers everything from the basic news release to Web sites and video work.

This course is available--free! – on-line, or can be purchased in CD format from the ARRL store.

So You Want to Join a Net. Really?…by Wayne Woodhams N6WIX

When you look at the list of nets in this area of the newsletter, the first observation that probably anyone would come to is that there are a lot of nets operated in Ventura County, or nearby. Some are group related, some Club related, some based on subject matter, and everything else you can imagine. In this issue I want to suggest some ideas, processes and responsibilities that exist in the process of becoming part of a chosen net.

The first effort in selecting a net to become part of, is what is the function and focus of the net, and is it of interest to you. You can find that out by comments made by others, lists and descriptions, and by actually listening. I didn't mention talking, since here is a great opportunity to listen first. You find out a lot by listening.

The second step in selecting a net is to make a personal decision on what you want from a net you have chosen. Do you want to benefit some way from participation, or contribute in some way? Or, perhaps some of both? If you have not chosen to gain something, or give something, then why bother? Nets represent the "coming together" via radio of a group of people, and having a purpose or reason for being part of that group makes the group richer.

Are there responsibilities in joining a particular net? Absolutely! This is an area that many members don't consider much, and should. First, can you hear and receive the net well? If yes, great! If no, then you are likely wasting your time. Secondly, can the net hear and receive you well? If yes, you're ready to be part of the net. If no, then you are wasting the time of the other net members. I've heard certain stations in this area that have checked into a particular net for a long time, and yet week after week they barely make it, and often can't even hold the repeater. Those who do so should take some moments and investigate what they can do to resolve that issue.

Also, another responsibility in joining a net is to find out, and cooperate with the style, practices, and protocols of that particular net. If a net functions in a unique or specific way, then make the choice to cooperate as best you can. Also, some nets are directed, some members only, or accept guests to listen only, or other tactical or call sign issues. It's good to know these things before barging into a net of perspective interest.

There are some really good nets in this area, but in this issue I am going to suggest and promote two specific nets, what they are about, and what you can gain from them. I am promoting these two HF nets for specific reasons, which will be explained on each listing.

The Weekly Southwestern Division Net.

Time: Sunday mornings at 0800, on 75 Meters. Frequency is 3865 kHz. The net typically lasts about ½ hour, and is usually hosted by net control, Marty Woll, N6VI. The net structure goes from section to section, throughout the Division, with appointed ARRL officers each reporting what is happening within their area. This is an absolutely great way to find out what is going on in Amateur Radio throughout the Division. During this part, please don't check in. At the last part of the net Marty opens up the net for visitors, and ALL are welcome. You can check in with no traffic, or briefly comment, or add what is going on in your area of radio involvement. One other benefit of this net is that many of those reporting are noted members of our hobby, like Gordon West, WB6NOA, and others, and they often have input on items that you wouldn't get elsewhere. **(Cont. on page 18)**

So You Want to Join a Net. Really?...(Cont. from page 17)

This is a neat net. Believe it or not, I am the ONLY one in our whole Section that checks into this net, and that is not good. Please give this net some consideration.

The San Mateo based Wide Area Red Cross Net

This is both a very interesting, and yet challenging net held each Saturday morning. It is specifically tagged as a 3 band NVIS testing net, and it happens as follows:

Time: 0730 - 75 Meter Net on 3890 or 3891 kHz, LSB (frequency chosen based on interference)

Time: 0745 – 60 Meter Net, usually Channel 4, but changed to other Channel if busy.

Time: 0800 – 40 Meter Net, on 7181 kHz. LSB.

The process of this net is that one of the main members in the Bay area looks up the Maximum Useable Frequency (MUF) ahead of the net, for propagation expectancy. Then the first net begins as a fast moving directed net, with check-ins only. Usually about 15 to 20 check in. Then each check-in is called again for signal reporting, that includes noise floor, signal report, and Circuit Merit reading. In 15 minutes, we close the first net, and move on to the second net. Same scenario, and finally the last net. I wrote an automated Excel spreadsheet that tracks the check-ins and signal reports, and at the close of the net, all members email in their copy of the spreadsheet, where the leadership in that area does some rather sophisticated summarizing of the received reports. If you want to learn a lot about propagation, setting up your radio very quickly, and tracking reports, this is both a fun and challenging net. All are welcome, and on some days when propagation is "long" for the main group in the Bay area, operators at a distance serve a relay function. On this net, it would be good to listen for a week or two, so that you could become more at ease with how the net functions.

That's all for this month. If you hear of any new nets, or net listings that need updating, please let me know.

Wayne Woodhams, N6WIX

Robert KM6RSS's "new" old tube tester with an RCA 112 in the socket

Local Area Radio Weekly Nets by Wayne Woodhams, N6WIX

Monday

Cuckoo Net 146.790 MHz (-) 131.8 Hz PL and 145.180 MHz (-) 131.8 Hz PL MTWThF from 08:00 Hrs

Auxiliary Bored Meeting: MTWThF at 09:00 and on Saturday at 21:00 Hrs : Bozo Repeater Frequency: 147.885 MHz Offset: -PL: 127.3

California Rescue ARES Net 7.25 MHz MTWThF 08:30 Hrs

Santa Barbara South County ARES net 19:30 Hrs on 146.79 MHz (-) PL 131.8.

Southwest ACS Nets Every Monday at 18:30 Hrs, on a local station on the Cactus Intertye Network. Check-in by roll call. 4th Monday "grid test" 20:30 Hrs.

LA DCS-22 Net – 19:30 Hrs - K6DCS - 147.225 MHz (+) then on 7.2353 MHz LSB

K6MEP Net -20:00 Hrs 145.200 MHz (-) 127.3 PL

CESN (California Emergency Services Net) at 20:00 Hrs Primary frequency - 3992 kHz, Backup frequency - 3960 kHz. All free to listen, check-in by membership only.

LA Section ARES Net - HF Every Monday following the VHF/UHF net (21:30 Hrs) 1st. 3rd and 4th Monday - 75 meters 3.995 MHz (± 45 kHz) / 2nd Monday -10 meters 28.495 MHz

Tuesday

Cuckoo Net 146.790 MHz (-) 131.8 Hz PL and 145.180 MHz (-) 131.8 Hz PL MTWThF from 08:00 Hrs

California Rescue ARES Net 7.250 MHz MTWThF 08:30 Hrs

Ventura County ARES-ACS 6 Meter Net - between 18:45 Hrs to 19:00 Hrs K6SMR 52.980 MHz (-) PL 82.5 SMRA Red Mt

Ventura County ARES-ACS Simplex Net - 18:30 Hrs on 147.510 MHz Simplex ORT schedule only

Ventura County ARES-ACS HF Net - between 18:30 Hrs to 19:00 Hrs 40M on 7.235 MHz LSB +/-

Ventura County ARES/ACS Nets between 19:00 and 20:00 Hrs. The County-wide net starts at 19:30 Hrs and normally finishes by 20:00 Hrs on WD6EBY 145.200 MHz (-) /127.3 PL

SBARC Swap Net 146.790 MHz (-) / 131.8 Hz PL and 145.180 MHz (-) / 131.8 Hz PL 19:30-20:00 Hrs

West SB ARES HF Net (1" Tuesday, Monthly) 3822 kHz LSB 20:30 Hrs

6-Meter Roundtable - 50.125 MHz USB First Tuesday of each month 20:00 Hrs

ATV Net 20:30 Hrs 148.790 MHz (-) / 131.8 Hz PL RITZ repeater

SBARC Digital Communications Net 146.790 MHz (-) / 131.8 Hz PL and 145.180 MHz (-) / 131.8 Hz PI 8:00 - 10:00 PM

Wednesday

Cuckoo Net 146.790 MHz (-) 131.8 Hz PL and 145.180 MHz (-) 131.8 Hz PL MTWThF from 08:00 Hrs

California Rescue ARES Net 7.25 MHz MTWThF 08:30 Hrs

CESN (California Emergency Services Net 10:00 Hours, Primary frequency 7192 kHz, Backup frequency - 7230 kHz All free to listen, check-in by membership only.

SMRA Tech Net 146.880 MHz (-) / 127.3 PL (SMRA Red Mt) 20:00 Hrs

SBARC Swap Net 146.790 MHz (-) / 131.8 Hz PL K872 20:00 Hrs

Teamtalk Voice Net.20:00 Hrs k6pvr-svr.local.mesh server http://www.pvarc.club/mesh/mesh-applications/

Thursday

Cuckoo Net 146.790 MHz (-) 131.8 Hz PL and 145.180 MHz (-) 131.8 Hz PL MTWThF from 08:00 Hrs

California Rescue ARES Net 7.25 MHz MTWThF 08:30 Hrs

So Cal 6 meter net. 51.940 MHz - pl 82.5. 19:00-20:00 Hrs

Southern Calif 6M SSB Technical Roundtable Net 20:00 Hrs on 50.2 MHz USB SSB

SBARC / K6TZ Technical Mentoring Net 20:00-21:00 Hrs 146.790 MHz (-) / 131.8 Hz PL and 224.08 MHz (-) 131.8 PL (linked)

Friday

Cuckoo Net 146.790 MHz (-) 131.8 Hz PL and 145.180 MHz (-) 131.8 Hz PL MTWThF from 08:00 Hrs

California Rescue ARES Net 7.250 MHz MTWThF 08:30 Hrs

Saturday

Military Radio Collector Net 18:00 Hrs 3985 kHz AM vavw.mrcuwestord/mrca-radio-nets/

Sunday

ARRL Southwestern Division Net 08:00 Hrs 3965 MHz. ARRL Officers check in first. All visitors welcome at end of that net

Newbie Net 19:00-19:30 Hrs Bozo Repeater 147.885 MHz (-) PL127.3

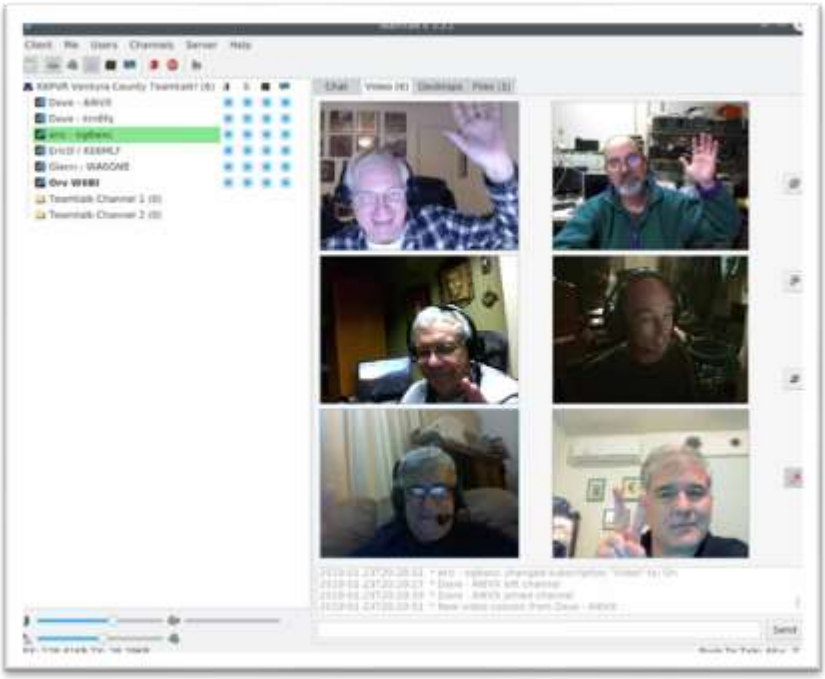
Rabbit Net 19:00 Hrs Linked Rabbit repeater.

NEWS FROM PVARC

PVARC is in the process of becoming an ARRL club, in order to qualify for ARRL insurance. Considering the increasing number of sites (six, supporting eight repeaters plus the future possibility of a couple more), and network equipment (a couple of dozen network nodes, Raspberry PIs, network switches, cameras, backup power etc.) that PVARC is deploying this was considered to be prudent. Those of you who have supported PVARC financially in the past will be encouraged to join the club officially when it happens. (All others encouraged to join also!)

PVARC Ham Radio Network News

Version 3.20.3.1 of the AREDN software was released on July 3rd. It's an incremental update, based on the newly released OpenWrt 19.07.03, plus all the updates AREDN has made since the previous release (30.20.3.0) last March. Most of the PVARC nodes have had the update applied.



Work continues at expanding the network coverage into Santa Paula. No deployment date is available yet, but with luck it should be before Labor Day.

The Wednesday night Teamtalk night continues to be active. Between a dozen and two dozen hams check for an extended chat session, sometimes continuing for two hours. Hams check in from Ventura County east to Palm Springs and occasionally as far north as Wyoming (via an Internet tunnel).

The software we use on the network nodes is created and supported by AREDN, the Amateur Radio Emergency Data network (http://arednmesh.org). AREDN will be holding their first annual conference online via Zoom on October 24th. There will be a half dozen sessions dedicated to various aspects of deploying and running a ham radio network using the AREDN software. More details to follow!

If you're interested, a couple of my ham networking presentations were recorded and are available on YouTube: (Cont. on page 25)

NEWS FROM PVARC (Cont. from page 24)

An overview of ham network with AREDN software: https://youtu.be/1vC7RP8nN1s

A walk-through of the AREDN software interface: https://youtu.be/m2khuccZGek

73

Orv W6BI

Paul WD6EBY

ARRL SB Section Mgr. John Kitchens NS6X

Aloha,
Some of you may have seen the announcement of the ARRL Sanctioned Virtual Ham Expo.
My initial reaction was "just another ZOOM" meeting. Anyway, I took a look at the info on their web site,
https://www.qsotodayhamexpo.com/
Decided to call one of the promoters for clarification. One thing I learned was it is not using a ZOOM meeting platform or any of the others in common use. It is a proprietary one built for commercial exhibits, not just for ham radio. Commercial exhibits with 50,000 attendees have already used the platform. The best I could compare it to is a virtual reality simulation of Dayton with vendor booths. The event opens at 0500 HST on Saturday and Sunday. Vendors will have staff that will interact one-on-one with attendees that "walk" into their booth, just like at large hamventions. Large vendors with distributors to help may have extended coverage. It is unclear how many hours and days vendor representatives will be available; probably depends on each vendor.
Hide your credit cards before attending. Just like normal hamventions, vendors will take orders on-line. Or there may be deals you cannot pass up. No swap meet, though.
The list of speakers is long (60 scheduled) and they will speak according to a published schedule (available soon). If you miss getting to the "room" on time or there are two topics of interest at the same time you can still watch it at your leisure. The talks and vendor presentations will be available "on-demand" for 30 days afterward.
Attendees can get tickets by registering on the web site. No cost! Attendance is free. You do not need to install any software to attend.
The video platform operates on any browser with no special program or browser add-on. How neat is that?
Now if you have read down to here, I'd like to recommend that you buy your free ticket now. At last count 13,000 attendees have signed up.
The event is filling up and they are considering putting a limit on ticket sales for the promoter's first virtual exhibit. The hope is feedback will help plan future ones.
Rumor is there may be a second one in March 2021. (Cont. on page 26)

ARRL SB Section Mgr. John Kitchens NS6X (Cont. from page 25)

I found looking at the YouTube video created for vendors has a lot of information that would be of interest to attendees.
https://youtu.be/8tLxkopzkHM
Should be interesting. A ham Expo that all hams can attend! [see ad, below]
72/73 NS6X

More than 12,000 Register Early for QSO Today Virtual Ham Expo

More than 12,000 have registered to attend the first *QSO Today* Virtual Ham Expo, August 8 - 9, *QSO Today* host Eric Guth, 4Z1UG, said this week.

"Since the Expo is a completely new experience for the ham radio community, it's great that so many people are excited and already registered," he said. "And with almost 3 weeks before the event, the number of registrants continues to increase." Attendance is free and there are early-bird prize incentives for registering by July 24.

More than a typical web meeting, the Expo is built on a live virtual platform commonly used by Fortune 500 companies and major universities. The platform simulates a convention experience with an exhibit hall and booths staffed by live attendants, a speaker auditorium, and even a lobby. Attendance just requires an internet connection and a computer, tablet, or smartphone.

The Expo will offer four separate speaker tracks focusing on a range of topics. Speakers will also be able to provide related material, such as slides and white papers, that attendees can download. Every session will have a Q&A where attendees can submit questions in real time via chat.

More than 30 booths will be open for attendees to visit, and exhibitors will have different options to engage with attendees. Exhibitor booths can provide downloadable content, such as videos, spec sheets, and manuals, and attendees can save content in a virtual briefcase to read later. Visitors will also be able to interact one-on-one with booth representatives, using a Skype-like system.

"The experience of a virtual expo is not meant to replace in-person conventions," Guth said. "However, I strongly believe that virtual events in our community are here to stay. (Cont. on page 27)

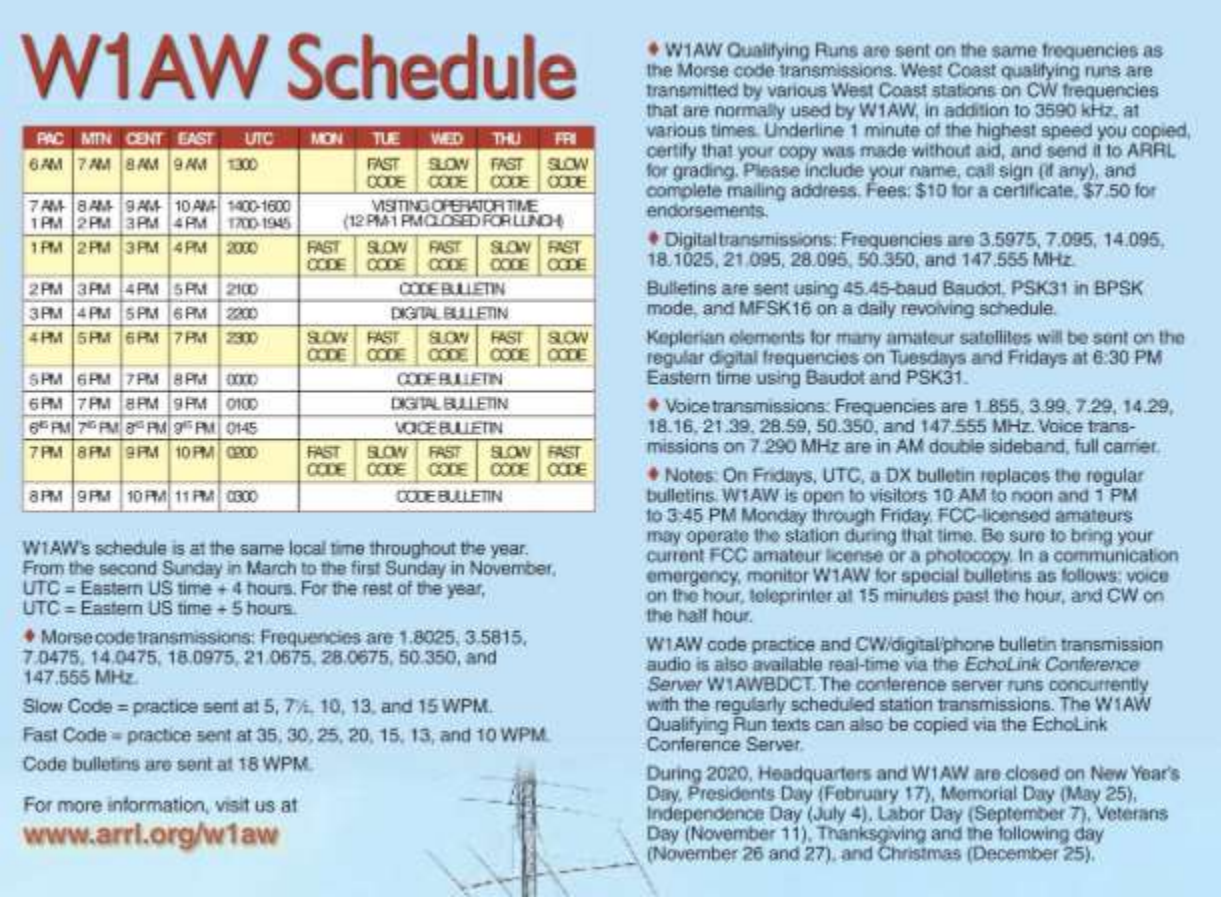
More than 12,000 Register Early for QSO Today Virtual Ham Expo (Cont. from page 26)

Given COVID-19 and its likely lasting impact on travel, especially given our demographic, this virtual expo enables the ham community to continue coming together to learn and engage."

Guth said that younger hams who have grown up with the internet will feel comfortable with the Expo platform, "making it easier for them to participate and find their place in this remarkable hobby."

Access to all speaker presentations and exhibitor booth content will remain on the Expo site for 30 days following the event.

The *QSO Today* Virtual Ham Expo is an ARRL-sanctioned hamfest.



Meeting Location Maps **(meetings may be on-the-air, please check K6MEP.org)**

K6MEP Membership Application.

Please bring or mail the completed form.

To join the Ventura County Amateur Radio Club, Inc. (also known as VCARC or K6MEP), complete and send form, along with $20 annual dues, to VCARC P.O. Box 2103 Oxnard CA 93034-2103

Checks can be written to either Ventura County Amateur Radio Club, Inc. or VCARC

Pro-rate dues as follows based on our calendar year ending October 31 (Oct-Dec = $20, Jan-Mar = $15, Apr-Jun=$10, Jul-Sep=$5). Existing members should renew every October =$20.

Name (Last, First)_____Call sign_____License Type_____

Address Street_____City, State Zip_____

Email_____Telephone_____Date of Application_____

Y/N for the following: New Member _____ Renewing _____ ARRL_____

I'd Like To See/Do....

TOPIC	YOUR INTEREST LEVEL			COMMENTS
	Meh	Ok	Yayy!	
All about coax cables				
Amateur Radio Satellites				
Antenna construction project				
Antenna ordinances				
ARES, ACS, CERT, RACES, MARS, SkyWarn				
Assembling a Go-Box				
Assembling a test lab				
Best bands to get on & what to expect				
Construction projects, like_____				
Ferrites, and demonstrations of.				
Field Day – Strategies, Tactics and Techniques				
FRS & GMRS - what are those?				
Ham Radio projects for Arduinos & Raspberry Pi				
VHF Digital Modes: D-Star, Packet, APRS				
HF Digital Modes: RTTY,JT65,WSPR,PSK31,PACTOR,FT8				
How to use an oscilloscope				
Local Repeaters You Can Hit				
MESH				
Moonbounce				
More social events, picnics, etc.				
NVIS for regional HF communications				
QSLs, QSL cards, ARRL LOTW, eQSL				
SDR - Software Defined Radios				
Compact HF antennas				
Soldering				
Sulphur Mountain Repeater Association				
SWR, Meaning and Measurement.				
Troubleshooting				
Vacuum Tubes				
VHF and Above Contesting				
What's DTMF, CTCSS, and PL?				
Power amplifiers and receiver preamplifiers				
Assembling Emergency Supplies				
The Love of Morse Code. Keys, Paddles & Bugs.				
The HF Reverse Beacon Network				
ARRL American Radio Relay League topics				

I can give a presentation on:	

ARRL News (all photos and icons from ARRL.org or other specified sources)

AMSAT-DL Submits Lunar Lander Proposal to European Space Agency

Germany's amateur satellite organization AMSAT-DL has submitted a comprehensive proposal to the European Space Agency (ESA) for its Lunar Amateur Radio Transponder (LunART) lunar lander -- a communications platform on the Large European Lander to support communication and payload experiments. AMSAT-DL's Peter Guelzow, DB2OS, and Matthias Bopp, DD1US, say that a LunART (called "LunaART" in the AMSAT-DL proposal) would support direct communication with Earth via amateur radio, support university and student payloads and offer direct access to their experiments, and expand the reach of radio science. It could also provide backup communication capability and capacity during an emergency, or when the ESA network is busy.

The comprehensive radio platform would use the European frequency protocol of 2.4 GHz up and 10.45 GHz down (approximately 100 W), pioneered in the QO-100 satellite, the first geosynchronous amateur radio payload. The platform would also include a VHF/UHF transponder. AMSAT-DL would develop and build the necessary hardware and software and provide ground station support via the 20-meter dish at AMSAT-DL headquarters in Bochum, Germany. They envision developing a smaller ground station with an approximately 1-meter dish to support groups, including schools and universities. Low-power beacons would transmit on various frequencies from VHF (145 MHz) through SHF (up to 24 GHz or even 47 GHz), AMSAT-DL's proposal says.

"This transponder would also be an ideal platform to develop new transmission schemes with novel modulation and coding techniques optimized for long-distance communications with the corresponding high latency (long delays)," AMSAT-DL said. "This would provide essential knowledge in preparation of a future Mars mission." In addition, LunART could include the capability to transmit still or slow-scan television images and video to schools "from cameras attached to the lander monitoring the moon surface and perhaps the Earth in the background [which] would be ideal stimuli for getting school kids and STEM organizations further interested in space."

The proposal is on open access at the ESA website and is now being evaluated. AMSAT-DL's LunART follows the Lunar (Cont. on page 31)

AMSAT-DL Submits Lunar Lander Proposal to European Space Agency (Cont. from page 30)

Amateur Radio Interaction Experiment (LARIE) proposal from Andy Thomas, G0SFJ. Both refer to weak signal modes and suggest the same frequency bands. Thomas said he welcomes LunART as a well-developed proposal and hopes ESA will support it as well. -- *Thanks to* Southgate Amateur Radio News

DXCC Entities in Play as US Rejects China's Significant South China Sea Claims

To radio amateurs, Scarborough Reef or the Spratly Islands are DX locations, occasionally activated to provide needy DXers with "a new one." The Spratlys are #53 on the Club Log DXCC Most-Wanted List, but Scarborough Reef -- a much more difficult piece of real estate to access -- is #4. These South China Sea Islands are once again in the news, as the US has begun putting heat on China by rejecting nearly all of its significant land claims in the region. Secretary of State Mike Pompeo this week said that the US now regards virtually all Chinese maritime claims outside of its internationally recognized waters to be illegitimate.

"The world will not allow Beijing to treat the South China Sea as its maritime empire," Pompeo said. "America stands with our Southeast Asian allies and partners in protecting their sovereign rights to offshore resources, consistent with their rights and obligations under international law. We stand with the international community in defense of freedom of the seas and respect for sovereignty and reject any push to impose 'might makes right' in the South China Sea or the wider region."

A 2016 ruling from an international tribunal discounted China's claims with respect to Scarborough Reef -- also known as Scarborough Shoal -- and the Spratlys, but it did not rule on the matter of sovereignty. In addition to China's claim, Malaysia, Taiwan, Vietnam, and the Philippines have asserted ownership of the Spratlys. Scarborough Reef is claimed by China, the Philippines, and Taiwan. The Permanent Court of Arbitration in The Hague ruled in favor of the Philippines in a dispute with China over Scarborough Reef. The tribunal said that although navigators and fishermen from China and other states have historically made use of South China Sea Islands, there was no evidence that China had historically exercised exclusive control over the waters or resources. (Cont. on page 32).

DXCC Entities in Play as US Rejects China's Significant South China Sea Claims (Cont. from page 31)

The tribunal said China had violated the Philippines' sovereign rights and had caused "severe harm to the coral reef environment" by building artificial islands and an air strip.

Bob Vallio, W6RGG, was one of the operators on the 2007 BS7H Scarborough Reef DXpedition.

In 2015, a Chinese naval vessel "harassed a Philippine Air Force patrol flight in the Spratlys," one news account reported, by firing an illumination round.

The incident postponed a Philippine Navy flight that was to evacuate an ailing participant of the then-just-ended DX0P DXpedition. The Chinese Navy has also warned off private aircraft. DX0P was issued by the Philippines. Last week, China complained about the US conducting joint exercises with two US aircraft carrier groups in the region.

A May 2007 DXpedition to Scarborough Reef used the call sign BS7H, granted by China. DXpedition team members operated from wooden platforms mounted atop each of the reef's four rocks that were exposed during high tide. The ARRL Board of Directors voted in 1996 to add Scarborough Reef to the ARRL DXCC List.

Field Day 2020 is Shaping Up to be One for the Record Books

ARRL Contest Program Manager Paul Bourque, N1SFE, reported this week that ARRL has received more than 8,700 online Field Day entries, and paper-only entries have started arriving too.

"As many participants chose to operate from home this year, and given the 2020 rules waivers, we have seen a tremendous increase in entries over last year's event," Bourque said. "Most of the entries received have been through the online web app, and Headquarters staffers have begun (Cont. on page 33)

Field Day 2020 is Shaping Up to be One for the Record Books (Cont. from page 32)

processing the paper entries this week." The 2020 waivers allowed individual club members to attribute their scores to their clubs.

Participants who submitted entries online are encouraged to check the Field Day entries received page to verify that their entries are marked as complete, and that the club name entered is correct. Entries with a status of "pending" are incomplete entries that are missing one or more items, and these need to be completed for an official entry.

Share your stories and photos using the ARRL soapbox page or via social media, such as on the ARRL Field Day Facebook group.

Radio Amateurs Respond to Flooding in Indonesia

Indonesia's International Amateur Radio Union (IARU) member-society ORARI and the National Institute of Aeronautics and Space of Indonesia (LAPAN) have activated the IO-86 amateur radio satellite to facilitate emergency communication in the South Sulawesi province in the wake of flooding on July 13. The disaster has affected nearly 5,000 families, according to Indonesia's National Disaster Management Authority (BNPB).

Heavy rains early this week swelled rivers and sent floodwaters, mud, and debris across roads and into thousands of homes, submerging many of them. IARU Region 3 Disaster Communication Coordinator Dani Halim, YB2TJV, reports an emergency post was established near the scene of the flooding. Some traffic is being handled on HF, and radio amateurs in Region 3 are asked to keep 7.110 MHz free for emergency communications.

Repairs to the power grid are under way. Local emergency managers and the Indonesian Red Cross have conducted a quick assessment in the field. The provincial road is covered in mud, preventing access to the main command post and the affected location.

As of July 15, at least 16 people died, and 46 other individuals are missing. ORARI Local Soroako participated in activating the Masamba flash flood disaster relief program and proceeded directly to the disaster site. Carrying out communication support at the disaster site, ORARI Local Soroako -- with Andi Baharuddin, YC8BR, who had first headed for the disaster site -- and ORARI Local Luwu Utara were establishing emergency communication.

Russian-Ukrainian Radio War May be Escalating

The June newsletter of the International Amateur Radio Union Region 1 Monitoring System (IARUMS) reports that what's being called "the Russian-Ukrainian radio war" continues apace.

"The Russian-Ukrainian radio war remained on a high escalation level also in June," IARUMS Region 1 Coordinator Peter Jost, HB9CET, said. "Almost every day, we heard the massive spiteful and provocative broadcasts. In June, they used more frequencies than before, affecting our bands very hard. It is a great annoyance and a big shame!"

Jost points out that the IARU Monitoring System has little opportunity to stop the on-the-air conflict. "Only national authorities can hopefully do something against international complaints," he said. "It is very important and very helpful that many other [IARU] member-societies also observe these frequencies and make complaints to their regulators. We have to coordinate this well within IARU and act together. This is the only way we have a certain power."

In May, Jost reported that the radio war has raged "for years" at 7055 kHz LSB (as well as on 7050 or 7060 kHz). Jost also reported continued daily transmissions from the Russian over-the-horizon radar known as "Contayner" in the 40- and 20-meter amateur bands and elsewhere. The Chinese "V" has been reported on 20 meters, from 14,246 to 14,256 kHz.

AMSAT VP Says Husky-1 CubeSat Project Helped Pave the Way for Future Missions

AMSAT Vice President of Engineering Jerry Buxton, N0JY, said that while it was disappointing that the amateur transponder on HuskySat-1 (HO-107) was not available any longer, following the satellite's science missions, the overall HuskySat-1 project and mission "were quite beneficial for our partner and for AMSAT." The linear transponder module (LTM) on HuskySat-1 was operational for more than 3 months, failing during or just after a period of full sun when LTM temperatures topped 80 °C (176 °F). HuskySat-1 was the first CubeSat from the Husky Satellite Lab at the University of Washington (UW) and the first mission with AMSAT's LTM V/u transponder onboard. University researchers conducted their work using an FCC Part 5 Experimental license.

(Cont. on page 35)

AMSAT VP Says Husky-1 CubeSat Project Helped Pave the Way for Future Missions (Cont. from page 34)

"The HuskySat-1 team was able to command their satellite and experiments and receive the telemetry

they sought, and AMSAT was able to work through the extensive process of making a new design for a 'black box' radio module that can be integrated into a non-AMSAT spacecraft and fly in the space environment," Buxton said in a recent post to the AMSAT-BB reflector. "While licensed and operated as an amateur radio satellite by AMSAT during the transponder use, some facts set HO-107 apart from our Fox-1 CubeSats and other AMSAT satellites," Buxton explained, pointing out that HuskySat-1 was not an AMSAT satellite.

"We have no control and may not have any insight into how a partner actually uses the LTM," he said. "While we see the LTM temperatures and many of the other typical data fields that we downlink to *FoxTelem* regarding LTM health, data such as temperature of the host environment as well as other specific information like power and the state of the other systems in a host satellite may or may not be available to us. Whether LTM is operated within design limits is entirely up to the host."

Buxton said the HuskySat team and AMSAT cooperated smoothly on the mission. The HuskySat-1 team is processing and studying its data for use in their thesis and classes and preparing it for release "in a specific way typical of such an institution today," he said. "AMSAT is generally more forthcoming with information about our missions, but what we can and have said about this mission is determined by UW."

Buxton said the LTM concept is now becoming available for other non-AMSAT CubeSats to fly amateur radio on their mission.

"HO-107 is the pilot production of LTM and was developed in partnership with UW HuskySat-1," Buxton explained. "It was the first CubeSat radio module designed and built by AMSAT for use in other host CubeSats, and UW was key in working with us through the design and processes needed to provide such a module. They did not buy it as such, nor did we give it to them as an 'off-the-shelf' product, as we plan to for future LTM production."

LTM was developed from the Fox-1E linear transponder design. "Overall, the HuskySat-1 team was quite happy with the telemetry and command performance, even with the LTM anomalies showing up toward the end of their experiments," Buxton said. "In the process of getting HuskySat-1 to orbit, several students became (Cont. on page 36)

AMSAT VP Says Husky-1 CubeSat Project Helped Pave the Way for Future Missions (Cont. from page 35)

interested in amateur radio, and we have already had preliminary discussions of future joint mission plans."

"There is no doubt that HO-107 was a success in many ways beyond the operational life of the transponder," Buxton added. -- *Thanks to* AMSAT News Service

International Lighthouse Lightship Weekend is on track for 2020.

Registrations for this year's popular International Lighthouse Lightship Weekend (ILLW) appear to have been largely unaffected by the current COVID-19 pandemic. The event will take place this year over the August 22 - 23 weekend. By mid-July, more than 200 entries had been received, and some 400 are expected to have signed up by the event weekend. New to this year's event is Corsica at Phare d'Alistro, which for ILLW purposes carries the French number of FR0030. Two lighthouses in Ghana will be on the air for the first time, as well as Buck Island Lighthouse in the US Virgin Islands (VI0001). Germany is well in the lead with 54 entries, followed by Australia with 29 entries, and the US with 27 entries. This event is designed as a fun weekend to encourage exposure to amateur radio and lighthouses to the visiting public, and ILLW stresses that contacts should be more than just an exchange of signal reports. All participants are urged to observe local COVID-19 safety guidelines. -- *Thanks to Kevin Mulcahy, VK2CE*

ARISS Established as an Independent Organization

Going forward, the US arm of the Amateur Radio on the International Space Station (ARISS) working group will be known as ARISS-USA, an independent organization. ARISS serves as the intermediary to arrange contacts between schools and organizations on Earth and ISS crew members. ARISS-USA was incorporated as a nonprofit entity in Maryland in late May. The move will allow ARISS-USA to work independently, soliciting grants and donations, while continuing to promote amateur radio and science, technology, engineering, arts, and math (STEAM) goals within schools and educational organizations. ARISS-USA lead Frank Bauer, KA3HDO, noted that the scope and reach of what ARISS accomplishes has grown significantly since its modest start in 1996.

"Our working group status made it cumbersome to establish partnerships, sign agreements, and solicit grants," Bauer said. "These can only be done as an established organization."

ARISS-USA will continue to collaborate with ARISS International as well as with US sponsors, partners, and interest groups, the announcement said.

ARISS-USA can accept tax-deductible contributions via AMSAT-NA through the ARISS website, **www.ariss.org**.

The 2020 ARRL 10 GHz and Up Contest

Held each year on the third full weekend of August and September.
Weekend 1: August 15 – 16, 2020. *Weekend 2:* September 19 – 20, 2020.
Each weekend begins 6 AM Saturday and runs through midnight Sunday, local time.

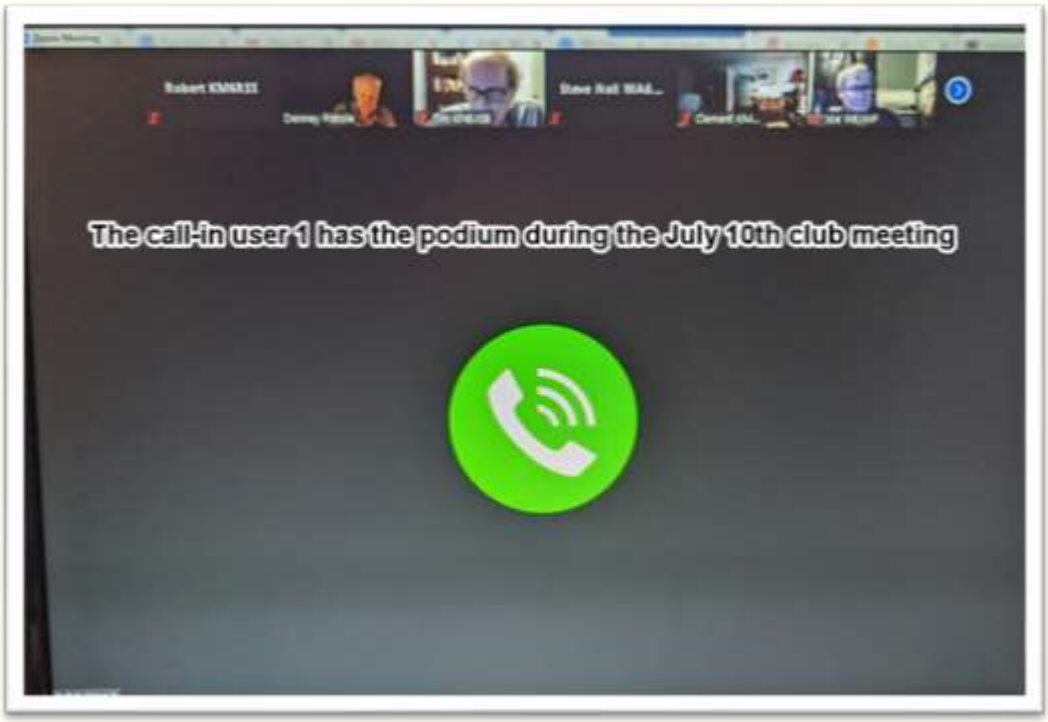
Peter Prabucki, VA3ELE, and Hugh Duff, VA3TO, took a break along the northern shore of Lake Ontario after making several 620-kilometer contacts with stations on Block Island, Rhode Island, during the 2019 ARRL 10 GHz and Up Contest. [Hugh Duff, VA3TO, photo]

The microwave bands 10 GHz and above will be exceptionally active in the 2020 ARRL 10 GHz and Up Contest. The object is to work as many stations as possible from different locations using frequencies from 10 GHz to light. Because contest scores increase over greater distances, taking your station portable will give you an advantage — the greater the distance, the higher your score.

Scheduling contacts is not only permitted but encouraged in this contest. Consider getting in touch with one of the many VHF+ or microwave clubs to arrange contacts with them. To locate a club, enter the term "VHF" on the ARRL club search page at **www.arrl.org/find-a-club**.

When the event is over, be sure to upload your Cabrillo log to our web app at **http://contests.arrl.org/arrl10gscore submission.php**, or send paper logs to ARRL 10 GHz Contest, 225 Main St., Newington, CT 06111. All logs must be received or postmarked by 2359 UTC on October 20, 2020.

Complete rules and entry forms can be found at **www.arrl.org/10-ghz-up**



The 2020 ARRL International EME Competition

0000 UTC Saturday – 2359 UTC Sunday for each of the event's three weekends.

Three weekends of activity for this year's contest:

September 12 - 13: 2.3+ GHz

October 10 - 11: 50 - 1296 MHz

November 28 - 29: 50 - 1296 MHz

Look to the moon for assistance during the ARRL International EME Competition! Long-distance DX contacts can be made on VHF, UHF, and above with 100 - 200 W and a medium- to long-boom Yagi. Using CW, phone, or digital modes, you too can bounce your signal off the lunar surface and work DX.

In the ARRL EME Competition, certificates are awarded to all stations who submit a log with at least one contact. Spotting assistance is allowed in all categories, including but not limited to DX-alerting nets, reflectors, email, or even telephone.

Logs must be submitted or postmarked no later than 2359 UTC, December 29, 2020. Send electronic log submissions via our web app at **http://contests.arrl.org/arrlemescoresubmission.php**, or send paper logs to ARRL EME Contest, 225 Main St., Newington, CT 06111 USA.

During the 2019 ARRL International EME Competition, Roger Rehr, W3SZ, adjusted the feed for his new 10 GHz trailer-mounted dish antenna, while Paul Sokoloff, WA3GFZ, provided assistance. (Russell Lamm, NN3Q, photo)

Complete rules and entry forms can be found at www.arrl.org/eme-contest

Social Distancing Exam Sessions Demonstrate Pent-Up Demand for Testing

An in-person "social-distancing" amateur radio exam session in Indiana and a "drive-in" session in California earlier this year were representative of those relieving some pent-up demand for testing.

"With in-person sessions starting up again around the country, we are hearing the same story from Volunteer Examiner (VE) teams everywhere," said ARRL Volunteer Examiner Coordinator (VEC) Maria Somma, AB1FM. "Large numbers of candidates who have been waiting to test are contacting teams and are thankful for the opportunity to sit for an exam....VE teams and candidates are following CDC and state guidelines for social distancing."

Anderson (IN) Repeater Club (**www.andersonrepeaterclub.org**) VE Team Liaison Steve Riley, WA9CWE, told ARRL that his club has been conducting test sessions every month since 2011, typically serving four or five candidates each session, but the May 19 session attracted 14 individuals.

VEs and examinees alike wore face masks, and the test room was configured to accommodate the necessary spacing between individuals. "We questioned everyone entering with the usual health questions," Riley explained.

The result for the session was 11 new radio amateurs and three upgrades.

In California, VE Larry Loomer, KI6LNB, told the ARRL VEC that his team conducted a successful drive-in license testing session on May 16 at the Concord Bay Area Rapid Transit Station.

Loomer explained that candidates fill out their paperwork in their cars. Once paperwork is completed, candidates take a test booklet and answer sheet on a clipboard and sit in a chair in front of their cars, taking the test in front of the VEs.

Completed tests go into a box on the VE table, and candidates back their cars into a holding area, to allow other cars to park by the testing chairs. Once a test is scored and signed, the CSCE goes to the waiting candidate, who may then drive away.

Somma said, "Our VE teams are doing a great job! I'm impressed with their attention to safety, their professionalism, and their innovative tactics."

The Madison County, Indiana, exam session.

Jon Jones, NØJK, n0jk@arrl.org

The World Above 50 MHz

Large Rates of Unlogged Contacts

Joe Taylor's, K1JT, *WSJT-X* software suite with the amazing FT8 mode has become the predominant mode for sporadic E and tropospheric propagation on the VHF bands. According to the *WSJT-X User Manual*, one reason is "FT8 is an excellent mode for multihop E_s on 6 meters, where deep fading may make fast and reliable completion of contacts desirable."

But there are times when it may not be entirely clear that a contact has been completed, or you think you completed a valid contact, but when you check Logbook of The World (LoTW) or Club Log, the other station has not confirmed your contact. For example, I called K7ULS on 6 meters, and Mike answered me with a signal report. I replied "R-13," and Mike received it, but I never received a RRR or RR73, so I considered the contact incomplete. Unconfirmed or incomplete contacts that do not end up in the log occur in daily operation, chasing DXpeditions, and in contests.

Conducting a study of radio contests, the *WSJT-X* team found an "undesirably large rate" of contacts that don't end up in the log during log checking procedures of HF digital contests (see Table 1). This has also been found in VHF contests, and from anecdotal observations in regular VHF operation.

A 5% unlogged contacts rate for these contests is larger than I imagined — higher than SSB or CW contests, which are around 1 – 2%. It may be reasonable to extrapolate a similar occurrence for non-contest contacts that don't end up in the log, particularly during a busy DX opening on 50 MHz with heavy stateside interference in the FT8 passband.

I have found that FT8 requires careful operator attention to what is in the send box, what you see is received, and the context of these messages. For instance, it is important to check that the other station didn't request repeated information. They may also keep sending a report, which could indicate they're waiting for you to confirm or send more information.

These issues occur more often when the band is busy, the frequency not clear, and the other station's signal is weak. The *WSJT-X* team has observed that many of the unlogged contacts are a result of "operators trusting too much in the automated message sequencing and logging features." The team concluded that a human decision to log a contact or not "is always best."

As a general set of guidelines for logging FT4/FT8 contacts, the *WSJT-X* team recommended these steps:

1) In *WSJT-X*, activate and learn to use the Alternate F1 – F6 bindings. These are selectable on the **SETTINGS** tab, in the **GENERAL** window.

2) Always log a contact when you have received "RRR," "RR73," or "73" from the station you are making a contact with.

3) Log a contact when you send "RR73," if you are reasonably confident it will be copied, but be sure to watch for any indication it was not copied. Avoidable human error is often the cause for your contact "not being in the log."

Table 1
Basic Statistics of the HF Digital Contests

Contest	Contacts	Unlogged Contacts	Average Percent Unlogged Contacts
2018 FT8 Roundup	127,340	5,803	4.6%
2019 FT8 Roundup	134,038	6,110	4.6%
2019 WW-Digi	178,906	9,669	5.5%

On the Bands

50 MHz. On May 5, KF2ZQ picked up 4U1UN on ground wave. On May 8, Larry, NØLL, operated portable from grid DN90. He made MSK144 contacts during the Eta Aquarid meteor shower, and sporadic-E contacts on FT8. Danny, KB8W (EN57), made E_s contacts to W7 and VE6. WD4ELG and KØBJ reported working SG6T (JO68).

On May 11, I picked up J68HZ at 2334Z on FT8 received a –24 dB report.

On May 17, Jay, KØGU (DN70), said, "I had a European opening all to myself." Jay logged 21 European stations, including YO3DZZ for his 152nd country. On May 18, Bob, K6QXY, worked HG2DX at 1547Z on FT8.

On May 21, Larry was mobile in EN01 (see Figure 1). He worked UW5EJX/MM at 1900Z in grid EL54. Starting at 2109Z, Larry worked almost ten stations. Larry said, "I started hearing Japanese stations from my home station. I heard JG1TSG working WA5ZFP and JA7WSZ working WA5ZFP." On May 22, Marty, N9OG (EM28), worked

Figure 1 — Larry, NØLL, set up a portable operation from EN01 in Nebraska on May 21, 2020. [Larry Lambert, NØLL, photo]

Figure 2 — Mike, K7ULS, set up a temporary station in Utah. He used a Cushcraft AR-6 vertical on 6 meters to make contacts with stations in Cuba on May 26, 2020. [Mike White, K7ULS, photo]

CO8ZZ using FT8. He uses a three-element Yagi and an Icom IC-7100.

On May 24, Hawaiian stations were logged across North America. Jim Reisert, AD1C (DM79), reported that stations in Wisconsin and Minnesota were able to work Hawaii on 6 meters starting around 2300Z on May 24. This included NH6Y, KH6ZM, and KH6U on FT8. John Sweeney, K9EL, in Illinois, worked three Hawaiian stations from 2240 – 2250Z. According to the *Daily DX*, John called it "the best 6-meter opening to Hawaii from W9 that I have seen."

Bruce, W9XX, also worked the Hawaiians. He worked KH6ZM, KH6U, NH6Y, KH6HI, and KH6TU over 17 minutes. On May 25, Bruce worked KV4HV in rare EL94. He runs 600 W to a six-element LFA Yagi at 50 feet. He was unable to make contacts with Hawaii stations with 200 W. On May 29, Dan, NP2J, worked 185 European stations on CW.

On May 30, Rich, K1HTV (FM18), worked TT8SN at 1202Z on FT8. This is K1HTV's 162nd country on 6 meters. Nicolas, TT8SN, posted that he had low ambient noise, as power was off in his town. At 1330Z, Rich logged 6W1TA. Rich said Tim, WW1L, copied WP4G making a contact with Nodir, EY8MM, at 1142Z. That is some long-haul DX!

Dave, N2SLO, worked many state-side stations on E_s. KF2ZQ found J68HZ (FK93), and FG8OJ (FK96). J68HZ has done an outstanding job this season handing out J6 Dominica. WA2GFN worked K2H, a special event "Heroes Station."

On Saturday, May 31, there was a rare opening from Alaska to the US Midwest and New England states. Mike, N1XK, woke up when JT Alert said "new state." He picked up KL7HBK at –3 dB at 0530Z, while running only 80 W (see Figure 2). This was his last state for the Worked All States award. AAØMZ in EM29 also worked KL7HBK, and said he was on almost an hour.

What's being called "a historic opening" on 6 meters in the Pacific Northwest to Europe occurred on May 31, when David Schaller, W7FN, saw the band open at about 1430Z. W7FN worked 12 DXCC entities on FT8 (on 50.323 MHz). From Illinois, Bruce, W9XX, found the band open to Europe. Going to 50.323 MHz, he ran a string of Europeans in 10 new countries. From Washington State, N7BT worked 34 Europeans in 14 countries.

Paul, K7CW, said, "I worked 83 European stations and 20 entities. Two of the entities were new ones for me, TK (Corsica) and 4O (Montenegro). An initial look at LoTW confirmations has 20 new ones."

The last time an opening like this took place was 10 years ago.

144 MHz. E_s popped up briefly on May 30. Ron, WZ1V (FN31), worked KØTPP and AAØKM in Missouri on SSB with S-9 signals.

222 MHz. N9HF (EL99) worked W7XU (EN13) on May 27 on JT65 EME.

Here and There

From rare Greenland, Bo Christensen, OX3LX, has been showing up on 6 meters on FT8 between 2230 and 0000 UTC. — *Thanks to* The Daily DX