

W6VIO Calling



Jet Propulsion Laboratory Amateur Radio Club
PO Box 842, La Canada CA 91012-0842



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President:	Stephen Townes, WB4ILW	4-7525	EmComm. Mgr:	Christopher Carson, KE6ABQ	3-3888
Vice President:	Courtney Duncan, N5BF	4-8336	W6VIO Trustee:	Rob Smith, W6GRV	3-7937
Secretary:	Rob Smith, W6GRV	3-7937	W6JPL Trustee:	Eric Archer, N6CV	4-7350
Treasurer:	Chuck Sarture, KG6NF	4-2706	WR6JPL Trustee:	Jim Lux, W6RMK	4-2075
Director at Large:	Jim Marr, AA6QI	3-1528	WR6AZN Trustee:	Bill Wood, W6FXJ	760-256-9576

Upcoming Events:

- Every Monday: Emergency Communications Net: Noon, on WR6JPL 224.08/(-)/156.7 & 445.20/(-)/103.5, or WR6AZN 223.96/(-)/156.7 on Table Mountain.
- JPLARC Board of Directors (BOD) meetings: Normally, the first working Friday, every month, from Noon to 1pm in 180-703C. Call-in: 818-354-3434 ID 7373. **Next is June 6th.**
- **QST, QST, QST**: JPLARC Regular Membership meetings: Second working Friday every month from Noon to 1pm in 180-703C. Call-in: 818-354-3434 ID 7373. Slides (if any) broadcast via meetingplace.jpl.nasa.gov, ID=7373. **Next is May 23rd. Guest speaker: Dr. Doug Millar EdD K6JEY discussing "Sidewalk EME".** *Doug, K6JEY, has been a ham since 1957. He has been doing EME since 1991, first on 2 meters, then on 432MHz, and then on 1296MHz. He also helped design the Owens Valley Radio Observatory (OVRO) 40M project. Currently most of his EME activity is on 1.2GHz. Doug also is a technical adviser for the ARRL in Metrology and keeps a lab at home for frequency, RF power and resistance.*

In this issue:

This issue covers:

- April regular membership meeting (4/25).
- Board of Directors meeting (5/9).
- Field Day 2014 Preparations.
- Emergency communications (radio practices).
- ARRL Membership
- For Sale.
- Future membership meetings & speaker topics.

April 25th Regular Membership Meeting:

By Rob Smith W6GRV

Present were: Bob Cesarone WA9JIB, Walt Ciszczon† KK6DUL, Jorge Gonzalez† KI6BJB, Dayton Jones† K6DJ, Mark Lysek† AG6TD, Jim Marr†* AA6QI, Lenoard Reder† KB6DVG, Chuck Sarture†* KG6NF, Rob Smith†* W6GRV, Mike Topet† W5EF, Steve Townes†* WB5ILW, Bill Weber† N6CI, Les White† KN6JU. On the phone: Mike Gauthier K6ICS and Merv Macmedan N6NO.

Note: † indicates a regular member, and * Indicates BOD member. For a regular meeting quorum, the JPLARC Bylaws require a majority of the BOD (4) and at least five other regular members, so we had a quorum.

President Steve Townes opened the meeting with introductions around the room followed by showing a list of topics to be briefly discussed.

Courtney Duncan, Eric Archer, and Steve Townes recently met with JPL Facilities Division Manager, Bob Develle.

- Not concerned about 180-R6, no pressure to vacate.
- Need to vacate 173 this summer, TBD dates but likely sometime around August.
- Believes he will set up to run everything including the cable up the hill from the new location where buildings 87 & 88 are today.
- Currently, the new shack will be the old guard shack that's now down at the West end of the Arroyo parking area, south of building 306.
- Club needs to look at what to do with all the equipment that's now in 173 that will not fit into this new facility.

Rob Smith reported that the club currently has 46 members, 39 are voting members, and 70% are ARRL members.

Current JPLARC treasury balance is \$4,017.71.

Jim Marr reported on recent equipment sales

- Sold 3 more items: the Dentron Clipperton L Amplifier, the DEMi 432-28 transverter, and the

second Telex V-220 headset.

- Items left are the MFJ-8621 Data Radio, and two 13 element 220 Mhz Yagis.
- To help prepare for our move to the new shack, we need to identify additional items to sell and have a membership vote to make sure that we're not proposing something to sell that we should be keeping for someone's planned project.

Jim Lux, Bob Dengler, and Jan Tarsala have been working on the repeaters, and found a bad antenna on the 445.20 machine. Repair/replacement of the antenna is currently in progress.

Field Day, Jim Marr leading the JPLARC effort:

- JPL ARC is doing a joint FD with PRC in the Art Center's parking log off of Lido Street just across the 210 from JPL.
- JPL is providing the CW station this year.
- Will use one of the JPLARC FT-1000D transceivers, an R7 vertical, and a multi-band fan dipole that we need to build or buy.
- The Saturday of FD will be a pot luck dinner at 6 PM
- Sunday will be a pancake breakfast
- Setup starts Saturday morning at 7 AM
- FD Operating is from 11 AM Saturday to 11 AM Sunday
- Tear down starts at 11 AM Sunday Morning
- Seven stations will be on the air:
 - 3 SSB
 - 1 CW (ours)
 - 1VHF
 - 1 Satellite
 - 1 Digital
- A FD Volunteer questionnaire has been sent around. Please consider letting the FD committee know of your FD interests.



Figure 1: Mike Tope W4EF, April guest speaker, discussing remote station control with his computer in the foreground that was used for a demonstration conversation from his remote HF station with N6ET and N6NO.

Next Club Meeting (May 23rd):

- Topic will be a presentation on "Sidewalk EME" by Doug Miller, K6JEY

Today's Presentation was by Mike Tope, W4EF on Remote Control of a Ham Station. This talk was distributed to all members through the JPLARC email reflector prior to the meeting so the contents of the talk won't be repeated here.

The highlight of the talk was an actual on-the-air demonstration by Mike controlling his remote HF station and having QSOs with retired JPL'rs Bob Polansky N6ET and Merv MacMedan N6NO on 40m & 20m SSB using his laptop computer in the 180-703C conference room.

At the end of Mike's talk, the question was asked whether one could use their mobile phone to remotely control their station. On May 2nd, responding to this question, Mike sent the following email message to the jplarc email reflector: *After my talk last week a couple of folks asked about doing remote rig control using smartphones. The following links are for vendors who are advertising remote rig control using iOS mobile devices:*

<http://myqxs.net/ccMOnline/>

<http://pignology.net/pigremote/>

I actually talked to the Pignology guy at the Visalia DX Convention 2 years ago. At that time, I think the only software he had available was for the iPhone. That may have changed since then. The CommCat guy has been around for a few years, but I haven't tried his software, nor do I know anyone using it, so I can't comment one way or another as to how well it works. A Google search revealed a whole host of other links to iOS remote rig control applications so not surprisingly it looks like that area of ham radio activity and experimentation is growing rapidly.

Have fun!

If you missed the talk and weren't on the Club email exploder distribution, send me an email and I'll forward a .pdf of the talk to you.

The meeting was adjourned at 1:05pm by Steve Townes.

BOD Meeting May 9th

By Courtney Duncan N5BF

Present: Bob Dengler NO6B, Courtney Duncan* N5BF, Jim Lux W6RMK, Jim Marr* AA6QL, Steve Townes* WB4ILW.

Phone: Chris Carson* KE6ABQ, Walt Mushagian K6DNS.

* indicates a BOD member; a BOD quorum was present (requires 4 of the 6 BOD members to be present).

Meeting opened by President Steve Townes.

Steve reported that there is interest in the 45th Apollo 11 Anniversary operation NASA Wide. Club is not really set up for this with current facility issues but could use people's home station with trustee approval. Really need our antenna farm back on the air.

Treasurer's report for April 2014:

Beginning Balance: \$ 4,017.71

Deposits:

+ \$	30.00	- 2014 Membership Dues
+ \$	17.00	- Commissions on ARRL individual memberships.
+ \$	345.00	- Used Equipment Sales

Withdrawals:

- \$	10.79	- AA6QI - membership card printing.
- \$	10.00	- AA6QI - manual for DEMi 432-28 transverter.
- \$	14.79	- AA6QI - power cord for Dentron linear.
- \$	35.99	- AA6QI - YAESU USB CAT cable for FT-1000D.

Ending Balance: \$ 4,338.14

Committee membership discussion:

Station Trustees: Archer will continue as W6JPL trustee, but questions the club's need for it.

Station Facility: Archer and Tope have declined to lead the Station Facility committee, so still seeking a lead. The Station Facility committee's biggest upcoming job will be coordinating the move from B173 to a new location, likely up around buildings 87 & 88 somewhere. Archer, Townes, and Duncan visited Bob Develle (Facilities Division Manager, 2800) April 22, 2014 who is aware of and facilitating this move.

Is the access list for 180-R6 still needed? People with a key who have cleared access with security from the hall phone but who are not on 'the submitted access list' have been admitted.

EmComm: Asked Carson to lead. Is considering. Marr will talk to Jim Erickson about it also.

Field Day: Marr reported that Field Day preparation is progressing. We will be leading the CW effort at W6KA. (No longer heading the Digital station.)

Internet Services: This is an important need that we're not yet addressing. Need to recruit one or two additional members to participate here.

Repeaters:

Dengler: Repeater access - only Lux currently has access to the Mesa and B35. Duncan will apply for access for: Carson, Dengler, Tarsala, Howe, Townes, and Marr. [ed. Access granted; thanks Courtney!].

Dengler: B35 repeater site - not a good repeater site. Will require over 250 W to implement the "receive

on Mt. Wilson, transmit from the mesa" plan as currently conceived. This may lead to difficulties with the operators of the UHF antenna range nearby (Vacchione and Hodges in 337B)

Meeting ended at 1300.

2014 Field Day Planning Update:

By Jim Marr AA6QI (& the FD Committee)

Field Day (FD) 2014 (June 28th & 29th) is now just one month away and plans are firming up for our joint FD with the Pasadena Radio Club (PRC) in the large parking lot of the Art Center off of Lida Street just a hop-skip-&-jump on the other side of the 210 freeway from JPL.

This year, JPLARC will be providing the CW station (and serving as the CW Station Captain), antennas, & some infrastructure items (generator, table, tent, etc.). The PRC will have a VHF/UHF station, two or three SSB stations, and a digital station (PSK-31). Lunch and restrooms are at the Art Center, there will be a Saturday evening potluck dinner and a Sunday morning pancake breakfast.

Setup will begin at 7AM Saturday morning, contest operations begin at 11AM and run continuously through Sunday 11AM, followed by teardown.

This year, we've also invited the Caltech ARC to join the JPLARC and PRC clubs.

We hope that JPLARC members will come out and participate. To that end, an email FD interest survey was sent out a couple of weeks ago. If you can fill it out and return the survey form, it would help us better plan how to divvy up the effort for preparation and execution of FD. We'll accept any level of participation that you'd like to offer.

JPL ARC EmComm

By Jim Marr AA6QI

As advertised last month, I'll briefly discuss some good radio practices for emergency communications. This material is taken from a number of sources including: the ARRL Emergency Communications Course, the ARRL Amateur Radio Public Service Handbook, the ARRL Operating Manual for Radio Amateurs, and various NIMS courses. There is a wealth of relevant operating information in each of these references making all of them well worth your time to read.

When we are called upon to support emergency operations it is paramount that our communications are clear and accurate at all times. Additionally, they should convey only the essential information as

concisely as possible so that we do not tie up the frequency any longer than necessary, allowing the frequency to be available for more urgent communications.

When speaking into your microphone, hold it off to one side and speak across it rather than directly into it in order to reduce breath noises and 'popping' sounds that can mask what you are trying to say. Speak in a normal, clear, calm voice, and speak slowly and concisely. When using a repeater, pause a moment after pressing the push-to-talk button before speaking, allowing time for delays in the repeater system so that your first words do not get cut off. This is especially true when using a network of repeaters such as our JPL to Table Mountain link.

Avoid any extraneous information; anything nonessential. Don't editorialize or engage in chitchat. Avoid using contractions (e.g., don't, can't) as they are easily confused. Think carefully about what you are going to say and then use specific language to say exactly what you mean (avoid any vague terms). Constrain your message to one complete subject at a time; mixing subjects in a single message can lead to confusion.

Use plain language, avoiding ham jargon. Avoid using Q-signals (except in CW communications), 10 codes, or similar. The one exception is the standard procedural words (pro-words or pro-signs) such as "clear", "say again all after", and so on. Avoid words or phrases that carry strong emotions and watch your speed of speech.

Be sure to use standard ITU phonetics when spelling words that have unusual or difficult spellings. When spelling a word phonetically, begin by saying the word, then say "I spell" and then proceed to spell using the ITU phonetic alphabet (alpha, bravo, Charlie, etc). Over enunciate numbers (Wun; TOOO, THUH-ree, FOH-wer, FY-ive, Sicks, SEV-vin, Ate, NINE-er, ZEE-row). Numbers are always spoken individually (e.g., 60 is "six zero"; 509 is "five zero nine").

When using common amateur radio pro-words (pro-signs), be aware that they might have a different meaning in other government services such as police, fire, or military. Some pro-words and pro-signs in common usage in amateur radio are (CW shown in parenthesis and sent as one character):

- Clear (SK) = end of contact; end of communication.
- Over (KN) = lets a specific station know to respond.
- Go Ahead (K) = indicates any station may respond.
- Out (CL) = End of contact; end of communication, no reply expected.
- Stand By (AS) = A temporary interruption of the contact.
- Roger (R) = transmission has been received correctly and in full.

Tactical call signs identify a stations location or purpose during an event, allowing you to contact a station regardless of who is operating that station. Tactical call signs should be used for all emergency nets and public service events if there are more than just a few participants. The Net Control Station (NCS or 'Net') should assign them if not already done. Tactical call signs should have a meaning that matches the way in which the served agency identifies the location or function, and be used consistently once assigned (don't use "EOC" one time and "Command" another). A list of tactical call signs should be made available to everyone who might make calls to or receive calls from each such location or function. Examples of tactical call signs are: Net (for the net control station), Firebase 1, Checkpoint 1, Canyon Shelter, Repair 1, Huntington (for Huntington hospital), etc.

If you are "Aid 3" during a directed net and you want to contact net control, you would say "Net, Aid 3" or, in crisper terms (and where net control 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." If you have traffic for a specific location add the location, e.g., "Aid 3, priority traffic, Firebase 1." Net might respond with "Firebase 1, call Aid 3 for priority traffic." This conveys all essential information and avoids unnecessary words.

Notice that FCC call signs have not been used in the above exchanges. The easiest way to meet FCC identification requirements during a net is to give your FCC call sign as you complete the last element of your exchange. This satisfies the FCC ID requirement and also lets the net control station (NCS) know that you consider the exchange complete. For example you might complete (clear) an exchange with "Aid 3, <your call>," letting the NCS know that you believe the exchange is complete. If NCS believes an exchange is complete and Aid 3 had forgotten to identify, NCS might say "Aid 3, do you have further traffic?" At that point, Aid 3 should either proceed with additional traffic or 'clear' by identifying as above.

Some things to avoid:

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

Next month, I'll begin (but might not finish) a discussion of nets and net procedures (deep topic with lots to discuss).

ARRL Membership:

By Jim Marr AA6QI

As an ARRL affiliated club, at least 51% of our membership must be ARRL members. Today, we have 61% as either Life (7) or Regular (20) ARRL members. That leaves seventeen 2014 members who are not ARRL members. While there are no requirements to maintain ARRL membership, there are some clear advantages to having ARRL membership. Some of these are:

- Receiving the monthly QST magazine and having access to all back issues electronically.
- Being able to subscribe to weekly ARRL news, propagation forecasts, and satellite ephemeris notifications.
- Being able to subscribe to the electronic monthly Amateur Radio Emergency Service (ARES) newsletter that may be of interest to members who wish to stay current on emergency communications.
- Member discounts on materials and training. For example, the ARRL Introduction to Emergency Communication Course is \$85 for non-members but only \$50 for members.
- You support ARRL, the only significant amateur radio advocacy organization in the U.S. that is fighting to protect our access to the airwaves.

Should those of you who are not already members and may wish to join, please do so through the Club rather than joining directly through ARRL. Why? If you join through the Club (new members), the Club retains \$15 of your membership fee to support Club activities. From your point of view, the amount you pay is the same either way. Even if you are member who is just renewing, doing so through the Club nets the Club \$2, again, without changing your costs at all.

To renew through the Club, see Jim Marr who will help you with the paperwork (don't worry, it's really simple!).

Thanks in advance for considering joining ARRL.

For Sale

By Jim Marr AA6QI

As reported in the February issue, the JPLARC membership approved selling a number of JPLARC equipment items as shown in February's Figure-13. At the time of this writing, only three items remain, as listed below.

- MFJ-8621 VHF Data Radio 2m/9600Baud (with power supply and xtals for 145.09MHz - which, paired with a TNC and computer, could give you a way to get on 2m packet radio. This is still a current MFJ product that sells for \$189.95+tax+S&H. Brand new, in original box. Has crystals for 145.01 and 145.09. Asking \$25.00 or best offer.

- Quantity=2, Cushcraft 13 element 220MHz Yagi Antennas. Asking \$50.00/each or best offer.

Your wants or gear for sale?

Send your listing to me (Jim Marr via email or snail mail at 180-704) and I'll see that it gets into the next issue.

Future Meetings

By Jim Marr AA6QI

All JPLARC meetings are being held on non-RDO Friday's from Noon to 1 PM in 180-703C. Call in is via MeetingPlace 818-354-3434 with ID 7373. Slides, if any, will be broadcast via <http://meetingplace.jpl.nasa.gov> also with ID 7373. Upcoming talks (subject to change):

May 23rd: Dr. Doug Millar, K6JEY, "Sidewalk EME".

June 20th: Jim Marr AA6QI will lead the Field Day committee report (final meeting before Field Day itself).

June 28th: Field Day with the Pasadena Radio Club W6KA at the Art Center in Pasadena.

July 18th: Field Day pictures and lessons learned discussion. Initial planning for 2015 Field Day.

NEW! August 15th: Gary Wong W6GSW will discuss the new 2.4GHz Broadband Hamnet (formerly known as Ham Meshnet).

September 26th: TBD will discuss Interfacing your radio to your computer, computer logging, & electronic QSL'ing.

October 24th: Steve Townes WB4ILW, Software Defined Radios & introduction to the 2015 Officer Nominating Committee.

November 21st: N5BF, Bicycle Commute APRS & Introduction of 2015 Officer Candidates.

December 19th: Club holiday celebration at TBD.

Advertisements:



<http://www.hamradio.com>

The Burbank HRO store is offering a 5% discount on ham radio "accessories" to JPLARC members, upon presentation of a valid JPLARC membership card.