

W6VIO Calling



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

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Director at Large:	Jim Marr, AA6QI	626-794-9805	WR6AZN Trustee:	Bill Wood, W6FXJ	760-256-9576

Upcoming Events:

- **Emergency Communications Net:** Every Monday at Noon, on WR6JPL 224.08/(-)/156.7 & 445.20/(-)/103.5, or WR6AZN 223.96/(-)/156.7 on Table Mountain.
- **JPLARC Regular Membership meeting:** Second working Friday every month from Noon to 1pm in 180-703C. Call-in: 818-354-4044 ID-number: **997 183 539** (without the spaces). Slides (if any) broadcast via JPL WebEx (same ID-number). **Next was to be Sep 25th, Guest speaker: Ian Pinkham KE6RFV discussing "A JEARS Progress Report", possibly including a discussion about plans for the October 15th Great ShakeOut exercise that JEARS will participate in.**
- **JPLARC Board of Directors (BOD) meeting:** Normally, the first working Friday, every month, from Noon to 1pm in 180-703C. **Next is October 9th.** Call-in: 818-354-4044 ID-number: **997 183 539** (without the spaces).

In this issue:

Topics in this issue:

- Regular meeting Aug 28th - was canceled.
- BOD meeting: Sep 11th.
- New Radio Shack Status
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- ARRL Membership.
- Equipment for sale.
- Future membership meetings & speaker topics.
- Advertisements.

Regular Meeting Aug 28th

By Jim Marr AA6QI

This meeting was canceled due to the lack of a JPLARC Board member being able to be present in 180-703C to run the meeting.

BOD Meeting Sep 11th

By Rob Smith W6GRV

Present were: Eric Archer[†] N6CV, Chris Gaylord[†] W6YTB, Rob Smith^{†*} W6GRV, Jan Tarsala WB6VRN, Steve Townes^{†*} WB4ILW. On the Phone: Jim Marr^{†*} AA6QI, Walt Mushagian[†] K6DNS.

Note: [†] indicates a 2015 regular voting member (i.e.,

JPL/Caltech/Retiree & 2015 dues paid), and * Indicates a BOD member. For a BOD meeting quorum, the JPLARC Bylaws require a majority of the BOD (four or more) to be present. We had three BOD members, three other regular members and one non-member (total of 7 attendees), so we **did not** have a quorum.

Monday was a holiday; There was not a Monday net this week.

Treasurer Report: Haven't seen an update this month yet; Field Day generator gasoline receipts have been received (-\$17.50) and paid. Also had one new member (+\$20.00), so treasury balance should be \$4873.69.

Secretary Report: 49 total members; 44 Voting members; 72.7% ARRL

President Steve Townes:

Upcoming talks:

- September's general meeting talk will be Ian Pinkham; Steve to follow up.

- Matt Bennett has agreed for the Oct. 23rd. On 2007 Amateur Radio and the ISS.

- Nov. 20th Mike Roche, Digital mode DX for the beginner

- Need to start looking at next year's talks. We could get the HRO folks to come and give a talk.; Marti Woll could

give a talk; shack status is another topic;

Nominating Committee for 2016 club officers:

- Nominating committee to be announced at the September general meeting in 2 weeks.
- Need to rotate the President and other officers among other club members.

We have a number of new members this year that have been participating.

Great Shakeout:

- Lessson's learned have been sent around.
- This year's exercise will be on Thursday, Oct 15, 2015.
- The BOD meeting prior to this meeting will be used as a radio checkout and preparation for the event.
- Will be including DSN; have reached out to Goldstone to see who would like to be involved
- Table mountain ; Ian and Chris Gaylord were up there after the fire; they do not have anyone licensed up there anymore. Looking at getting someone up there licensed.

Shack update:

Chris Gaylord:

- From Ian; seismically anchored yesterday;
- The cables have been run down from the Mesa. The junction box is behind the shack; Eric Archer took some pictures (sent to Steve Townes). Cables need to be terminated and attached inside the junction box, and cables need to be run through the conduit to inside the shack.
- Looks like the cable install was done very well.
- Need to test the cables and the antennas.
- The shack connections need to be made by the club.
- Generator power connection is finished.
- Air conditioner is in the shack and working (left on).
- The keys are done. Believe this is a new key. Chris Carson said it was going to be the same key but Chris Gaylord believes it is a new key. Steve & Eric will check after the meeting.
- Need to connect the cables at the top of the Mesa.
- Facilities / Contractor are saying they are done; Facilities needs to know when will the club be out of building 179.

Storage trailer:

- We now have a trailer with electrical power and a fire suppression system. It is adjacent to the shack.
- We have the storage container (7111) at the west end of

the Arroyo parking lot; we need to think about how we move out of it (move contents into the new trailer).

Action needed:

Need work parties to plan, connect the shack, move out of the old shack, and move the storage container contents to the new trailer.

Jan Tarsala:

We've had a set of frequency assignments for NASA locations for many years but these authorizations had errors in station locations and other typos. Jan has been pushing NASA to clean up these allocations and that effort has now come to fruition.

New allocations are uniform among all the centers and have additional allocations for automatic link establishment (ALE) communications. It took about 2 years to get this through; NTIA has approved the new frequencies and designators. Should get info through JPL's Frequency coordinator but have not yet heard from them. This is 5 years in the making. This is very good news. Broadly stated modulation designations. Used to be authorized for 1000 watts and the new one states 150 watts, don't know why the change.

We (JPL) have KHA920 and KHA921 is Goldstone.

Some of the other NASA centers have FEMA authorizations as well (JPL does not). (Callsigns something like WGY...). This may be the next thing to sort out (getting access to the FEMA government frequencies).

Sylvia may be the point of contact; Chris Gaylord asked for Jan Tarsala to send him the list.

Walt:

Storage trailer - need to keep on top of rat traps in the new trailer.

Jim Marr:

Since we did not have a general meeting in August, September W6VIO Calling issue will be slim. Could use a writeup on the new shack facility by roughly mid-week next week so Jim can send out the newsletter by end of next week. Chris Gaylord to provide a writeup to Jim.

Meeting adjourned at 12:40 pm.

New Radio Shack and Storage Trailer Status

By Chris Gaylord W6YTB - Emergency and Continuity Management Liaison to JPLARC/JEARS.



Figure 1: Building 329 - Radio Communications Building (new radio shack). Trailer mounted generator is on the right.



Figure 2: Building 329 interior looking North.

The new radio shack across Pioneer Road from the Mars Yard is nearing completion and has been designated as Building 329 (Radio Communications Building) (Figure 1). The Emergency and Continuity Management Group (203A) has been working with the Club and JEARS as



Figure 3: Building 329 Interior looking southwest

well as Facilities Management to commission this former Protective Services Division guard post to replace the old shack at Building 173, which is due to be demolished. Recent work on the building has included wiring it for electricity, telephone, and data as well installing seismic anchors and an emergency power connection for the trailer-mounted generator that is stored next to the shack (Figure 1). A switchover procedure for generator power will be developed and posted in the shack so that it can be brought up quickly in the event of a power outage.

The shack itself has two rooms – a large 11½' x 7' main room (Figures 2 and 3) and a smaller 7' x 3' equipment room at the back (Figure 4). Built-in metal counters in the main room allow for a variety of potential operating positions and plywood sheeting has been installed on the walls in the equipment room to allow mounting of equipment and cable management. The main room also features an enclosed electrical cabinet built into one of the walls (Figure 3) that holds the breaker panel and electrical wiring for the building and the telephone/ data connection and has room for additional equipment to be mounted. Several cable pass-throughs between the two rooms as well as the electrical cabinet allow for a variety of equipment configurations. The shack is air conditioned as well and has exterior lighting and an

additional metal counter wrapping around the outside of the building (Figure 1).



Figure 4: Building 329 Interior looking south into the equipment room

In addition to the shack, a repurposed semi-trailer (Trailer 9342) has also been provided for additional equipment storage near the shack (Figure 5). The trailer is wired for lighting and power inside but is not connected to shore power. The Emergency and Continuity Management is looking into providing a generator connection similar to the one at the shack for emergency purposes.

During late August and early September, cable was run from the antenna site on the Mesa to the new shack (Figure 6) and currently these cables are coiled next to the shack. A junction box was installed to the rear with conduit under the pavement feeding into the building (Figure 6). A work party from the Club and JEARS will need to terminate these cables inside the exterior junction box and then feed additional cable through the conduit to connect to equipment inside. Additional work parties will be necessary to move equipment from the existing shack and other storage locations to the new shack and trailer as well as to make final connections and system tests.



Figure 5: Equipment storage trailer next to building 329

The new shack and trailer are on a new key and the plan is to rekey other Club/JEARS locations to this new key. Emergency and Continuity Management is working with Chris Carson on rekeying the other existing locations and new keys will be issued to Club and JEARS members over the coming weeks.

EmComm

By Jim Marr AA6QI

The annual Great ShakeOut exercise is coming up again in October and is an opportunity for the club to practice our EmComm skills. Since all on-lab JPLARC members are implicit members of the JPL Emergency Amateur Radio Service (JEARS), we hope that those of you who are on lab will consider taking part in this year's exercise. To help us prepare for this year's exercise, it's worth thinking back to last year's exercise and what we learned from that.



Figure 6: Cables to Mesa antenna farm and cable junction box next to building 329

Recall that last year a significant number of us had difficulty remembering how to operate our radios. Specifically, many forgot things like how to switch to another repeater or how to switch to a specific simplex frequency. So, it's worth the time to get out the manual for your radio and practice doing these kinds of things since we tend to forget the things that we don't use frequently.

You might also consider putting together a 'go kit' that contains things like spare batteries, AA-cell battery pack and a package of AA batteries, a hat, a hand mike if you use one for events like this, pen and paper for taking notes, water and snacks, and anything else that you're likely to need while participating in an EmComm event.

We expect that specific JEARS instructions will be passed out this year prior to the exercise that will spell out the positions that we need to staff and where we should assemble. Remember, though, that aspects of the exercise will be unknown prior to their occurrence and we need to be prepared to deal with those unknowns as they occur, that being part of what makes the exercise so much fun.

For example, last year, we ended up having difficulty communicating with our JEARS member in the Emergency Operation Center (EOC) and resorted to runners but the runners couldn't enter through the main EOC door in the building 310 hallway. After the exercise, it was recommended that runners go through the back door into the EOC, accessed through 310-106. While this is what was decided last year, we should be attentive to whatever direction we get from our JEARS leadership in Protective Services.

ARRL Membership:

By Jim Marr AA6QI

As an ARRL affiliated club, we need to maintain at least 51% ARRL membership among our voting members.

As of August 14, 2015, of our 49 CY2015 members, 35 (73%) are either Life (7) or Regular (27) ARRL members. Note that 73% of our 44 voting-eligible members (i.e., JPLARC Regular members) are also 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 a 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 Secretary Rob Smith who will help you with the paperwork (don't worry, it's really simple!).

Thanks in advance for considering joining ARRL or for maintaining your membership.

Equipment For Sale

By Jim Marr AA6QI

The sale of the following items of surplus JPLARC equipment was approved by the quorum present at the October 24, 2014 regular membership meeting. Please make your best offer to Club Treasurer Chuck Sarture at JPL. All equipment is sold as-is with a receipt from the JPLARC.

- ICOM IC-27H 25W 2m FM transceiver, asking \$40.
- Kenwood TR-9130 all-mode 25W 2m transceiver, asking \$60.
- ICOM IC-471A all-mode 70cm 25W transceiver with external PS-30 power supply, asking \$100.
- ICOM IC-471H all-mode 70cm 75W transceiver with internal power supply, asking \$150.
- ICOM AG-35 70cm mast mounted preamp, asking \$10.
- Packet Station consisting of an MFJ-8621A 2m Data Radio with crystals for 145.01 MHz & 145.09 MHz, and an AEA PK-232 MBX TNC, asking \$15 for the pair.

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. Upcoming talks (subject to change, as always):

Potential topics for the rest of the year include (although not all speakers are confirmed yet and always subject to change):

October 23rd: Guest speaker: Mike Roche N6XLK, "Digital mode DXing for the Beginner using PSK31 and JT65 HF modes", discussing his experience with setting up and operating PSK31 and JT65 modes.

Also: President Steve Townes to announce the 2016 club officer nominating committee.

November 20th: Guest Speaker: Matt Bennett KF6RTB "Amateur radio on the International Space Station." Also: nominating committee to present the slate of candidates for 2016 offices and take additional candidates from the floor. If only one candidate for any office(s), voice voting will take place at this meeting. If more than one candidate for any office(s), follow balloting process described in club Bylaws (<http://jplarc.ampr.org/Bylaws-2014.pdf>) article VII Section 3.

December 18th: We haven't been having December regular meetings for a while as a consideration to the heavy holiday schedule that most of us have and don't currently plan to have one this year either.

2016 meeting presentations: The Board is seeking ideas for 2016 regular membership meeting guest speakers. If you have suggestions or are willing to give a talk yourself, please contact Steve Townes as soon as you can to give the Board time to make arrangements with the speaker(s). Thanks in advance for your help with this.

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