

# W6VIO Calling

## JPL

Jet Propulsion Laboratory Amateur Radio Club  
PO Box 820, La Canada CA 91012-0820



**Volume 36, Issue 2**

**May 2013**

|                    |                       |        |                  |                            |              |
|--------------------|-----------------------|--------|------------------|----------------------------|--------------|
| President:         | Jim Marr, AA6QI       | 3-1528 | Emer. Comm. Mgr: | Christopher Carson, KE6ABQ | 3-3888       |
| Vice President:    | Eric Archer, N6CV     | 4-7350 | W6VIO Trustee :  | Rob Smith, W6GRV           | 3-7937       |
| Secretary:         | Courtney Duncan, N5BF | 4-8336 | W6JPL Trustee:   | Eric Archer, N6CV,         | 4-7350       |
| Treasurer:         | Chuck Sarture, KG6NF, | 4-2706 | WR6JPL Trustee:  | Jim Lux, W6RML             | 4-2075       |
| Director at Large: | Bill Weber, N6CI      | 4-0490 | WR6AZN Trustee:  | Bill Wood, W6FXJ,          | 760-256-9576 |

### Upcoming Events:

- Emergency Communications Net: Noon, every Monday, on WR6JPL 224.08/(-)/156.7 & 445.20/(-)/103.5 on Cerro Negro, or WR6AZN 223.96/(-)/156.7 on Table Mountain.
- JPLARC Board of Directors meetings: every non-RDO Friday, until further notice, from Noon to 1pm in 180-703C.
- JPLARC General Membership meetings: These will start again soon! Stay tuned for the announcement.

### In this issue:

By Jim Marr, AA6QI

This issue covers activities through the end of April 2013. These include:

JPLARC Board of Directors (BoD) meeting on April 12<sup>th</sup>;

JPLARC BoD meeting on April 26<sup>th</sup>;

T-1745 cleanout on April 4<sup>th</sup>;

Building 173 "shack" cleanup on April 18<sup>th</sup>;

Identification of ~120 JPL Hams and the Initiation of JPL Hams Survey by Bill Weber N6CI.

Reminder about the Monday Noon Emergency Communications Net designed to test the readiness of our equipment to serve when needed.

New ham radio book: "Riding the Shortwaves: Exploring the Magic of Amateur Radio" by Don Keith N4KC.

### April 12<sup>th</sup> JPLARC BoD meeting minutes:

By Courtney Duncan, N5BF/6, Secretary

The meeting was held in 180-703C at Noon 2013 April 12, President Jim Marr presiding.

Present: Jim Marr\*, Eric Archer\*, Bill Weber\*, Courtney Duncan\*, Bob Dengler, Jan Tarsala, Jim Lux\*  
Phone: Chuck Sarture\*, Randy Hammock, Scott Howe, Merv McMedan, Dayton Jones, Scott Nolte  
Absent: Rob Smith\*; \*BoD Member  
A quorum is present.

Jim Lux has received the FCC license for WR6JPL. Is updating the TASMA contact information. Eventually, 220SMA, and SCRBBBA. Bill Wood has been asked to update the JPL ARC BoD listing on the website [done].

Officer Reports:

Vice President: Eric Archer

- Work party last Friday - cleaned out most of trailer T1745

- Next work party, B173, Thursday 4/18/13 4-6 p.m. Notices sent out.

Secretary: Courtney Duncan

- Minutes for 3/29/13 corrected to note that Chuck Sarture was present on the telephone.
- Moved, seconded to approve the minutes from 3/29/13 as amended. Not opposed.
- Per meeting will send out minutes to ARC Exploder following approval.
- Shack Keys? The current list shows 27 members with shack keys. Jim Marr has applied for a shack key. This will test that the approval should be routed to Courtney Duncan (secretary).

Treasurer: Chuck Sarture

- No expenditures last month but does owe Eric Archer a check for his Home Depot expenditures from last Friday, 4/4/13 work party.
- In the future we'll have receipts brought to the board for approval before the Treasurer disburses.
- Moved and seconded to do this reimbursement (Archer). No opposition.
- Will expect monthly cashflow report.
- Open action to update the signature card.

At Large: Bill Weber

- Sent out test survey to BoD and got 7 interesting responses.
- List of JPL hams now up to 118, including eight contractors from Goldstone and a guard from TMO. JPL full time: 109. List does not include family, spouses, etc.
- Last few came from JPL Space announcement, and some deletions. Announcement will remain up for another week.
- In the following week plan to send out the survey to all on the list - our customer base.
- Some interest has been expressed from people wanting to find out how to get licensed.

Committee Reports:

- Education Committee: VE examiner. Archer, Duncan, Marr, Tarsala, MacMedan, VE Certified. (Archer is not current VE.). Has not met. Marr has been sending out training and licensing announcements from Pasadena ARC.

Publicity and Membership: Bill Weber & Scott Nolte

- Scott has been receiving electronic membership applications.
- Marr nominates Randy Hammock KC6HUR as an external member of the club, as announced in e-mail. Randy has been maintaining IRLP and Echolink on the club repeaters and is administrator of [ampr.org](http://ampr.org) website. Seconded. No opposition. KC6HUR is now an external member.

Repeater Committee: Bob Dengler, Scott Howe, Jim Lux, Jan Tarsala, Bill Wood, Randy Hammock

- Had a meeting by meetingplace yesterday (4/11/13),

mostly to get Scott up to speed on Table Mountain systems.

- Jan reported on Kenwood repeaters. There has been progress on the lockup bugs with Kenwood.
- No news on the antenna assembly for the mesa Master II, RLC-3 are operational and in place. Need only the antenna to get back on the air.
- Tarsala: The Sam Weaver welded beam is somewhere - we are looking for it. It is ready now if we can find it. Eric and Courtney will look in 161-124 after this meeting for antennas that we may have dismantled in the B35 cleanup in October '12. (Note: None found - Eric thinks that Chris Carson may have moved it to B 305 for safekeeping. Will follow up.) If not - send repeater committee off to procure one.
- Tarsala: We have a new antenna that needs a support pipe.
- La Canada - Cerro Negra sublease agreement under review by NMO. Have sent e-mail to add Lux to the contact list (now have Marr, Archer). Deadline is 4/30/13 to Edward Hittie (La Canada city Public Works Manager) but he said as long as it's in work on that date we're OK.

Station Facility: Archer, Smith, Tarsala

- Met with JPL facilities with Bob Deville, Pete Jones, Henry Tauchen, Bill Weber, Eric Archer, Jim Marr.
- Resolved: Will vacate T1745, B173 (eventually). Tentative replacement location where an Igloo will be erected (fiberglass building) building 87, 88, 98 area after some demolition there. East Gate will be reworked with possible turnaround where B173 currently is, for the Arroyo parking garage. Will Michael is going to supply some trailer space at the west end of the Arroyo. For T1745 disposition, need to have a discussion with the club about the nature of future FDs. Most of the stuff in there is FD related. Want to put up an HF antenna at B173 while we wait. Total cost of new shack and new feedlines, OTO \$200K. Someone has an action to bring that to the OMC. Restroom ~75 feet away. Unisex - outside door. Weber talked to Tauchen about B143. Maybe we could move in there. Looks like a garage. 30x15'. Would need A/C. Tarsala wants to move the 208/240 transformer up from B173 (to run linears on 240).

Liability Waiver:

- Continuing discussion with OGC's Kerry Slater. New draft version modeled after the USAR agreement that provides Workman's Comp. Has been sent out to the BoD for comment. Will Michael thinks it applies only to JEARS. Marr has provided a justification memo for why it should be all JPL ARC volunteers.

ByLaws discussion - deferred again. Marr keeping inputs. Committee will meet to work issues and report to BoD. Duncan, Marr, Dengler.

JPL Internet presence. Wood, Hammock, Dengler, Lux, Nolte.

- Rename "Internet Services."
- Do we want to move our exploder to a Yahoo Group? Hammock is the only ampr.org maintainer right now. Combine with "Web Presence" committee.
- McMedan suggests that VIO Calling or equivalent keep records that make it the history of the club for future reference.

Meeting Programs - want to start regular meetings soon, need a planner.

JEARS Committee- coordination within or with JEARS. JEARS does not exist today. Will Michael wants to start one up. (JEARS = JPL Emergency Amateur Radio Service)

FD - there is interest in a real Field Day event this year. We have a five-year access to Mt. Gleason that expires August 13. A volunteer to man the gate from the Angeles Forest Highway has been identified.

## April 26<sup>th</sup> JPLARC BoD meeting minutes:

By Courtney Duncan, N5BF/6, Secretary

The meeting was held in 180-703C at Noon 2013 April 26, President Jim Marr presiding.

Present: Jim Marr\*, Bob Dengler, Robert Smith\*, Bill Weber\*, Courtney Duncan\*, Eric Archer\*, Bob Cesarone, Will Michael (KC6LOK, JPL Emergency Preparedness Coordinator). On phone: Scott Howe, Walt Mushagian. \*BoD member - five required for quorum. A quorum is present.

Reviewed club restart activities using a PowerPoint slide with the restart activities color coded to identify their current status.

JPL ARC Liability Waiver: Conversation with Kerry Slater, Will Michael, Nancy Kapell continues. Jim Marr and Will Michael met 4/22/13. Michael says all JPL ARC Regular Members (per JPL ARC Bylaws) would be JEARS for purposes of liability waivers, etc. Can be JEARS without being JPL ARC member, but JPL ARC membership recommended.

### Officer Reports

Marr, President:

- April VIO Calling is posted on website. Goal is to have May issue out in 1st two weeks in May.

Archer, Vice President:

- B173 work party was successful. Next work party will be for 180-R6.

Duncan, Secretary:

- No comments on minutes from 4/12/13. Weber moved, Archer seconded to approve as written. Duncan to distribute to club exploder.
- Duncan has been added to the club key approval process. Rob Smith will test the system by applying for a key. There are now 28 keys issued, including Marr.

Sarture, Treasurer (not present):

- Has set up a meeting to change the signature card at the credit union.
- The JPL ARC began and ended April with \$ 2,274.43 in it's CEFCU account.

Weber, Director At Large:

- List of hams at JPL now at 119 including one new person, newly licensed today, and another last week. Breakout: 110 are JPL persons, one is a Table Mountain guard, eight are Goldstone employees. All are eligible to be regular members. Will run survey again with that list. Should have results in time for the May 10, 2013 BoD meeting.

### Committee reports:

Education and Volunteer Examiner: Archer, Duncan, Marr, Tarsala, McMedan. Has not met.

Publicity and Membership. Weber, Nolte. See Weber's report above. Nolte not present.

Repeater: Lux, Tarsala, Dengler, Wood, Howe, Hammock, Carson.

- Planning a link test. Howe delayed until he gets back from travel.
- Cerro Negro: Still waiting on lease agreement.
- Mesa B35A 2 meter repeater: Not operating yet. Holdup is still the antenna. Need a support pole. Everything else is up there.
- Jan still working with Kenwood. Have received second firmware update but there is still a residual transmit lockup problem.
- 449.46 system for the Mesa. Not to be open. Activated for emergencies and drills only. (It is now coordinated as the regional remote base frequency with corresponding 444.46 not assigned. Will use DPL (digital private line).

- Tarsala relays the following information about upcoming power outages: Maintenance will shut down all power to buildings 35, 35A, (& others) on Saturday, May 18, 6 a.m. to 6 p.m, and 180, (& others) on Saturday,

June 15, 6 a.m. to 6 p.m. These involve JPL ARC equipment. All the UPSs the club has are dead (shot batteries). Will Michael has equipment we can use. 200 AH UPSs will be sufficient.

- Will Michael is providing some equipment funding based on emergency management activity.

Station Facility (non-repeater) Archer, Smith, Tarsala (NASA Net Liaison)

- Marr: Would like to put up some antenna so we can get the B173 shack back on HF while the move is pending.

- Mushiagan: GAP Titan - 40/30/20/17/15/12/10 - should be able to put it up on a mast on the pump house at B173. Could use one of the many push-ups in storage. NASA net frequencies: just above 20m and below 40m ham bands. Might do this as the next work party (instead of 180-R6). Club also has a pair of R7000s in the trailer at Caltech. Check with Mike Tope. Recommend that we use one of the R7000s rather than the Titan. There is a mounting plate that Tope will know about.

Constitution / Bylaws: Duncan, Dengler, Marr.

- Has not met.

Internet Services: Dengler, Hammock, Lux, Nolte, Wood.

- Archer has a computer that could be used for IRLP.

### New Business

Weber left the meeting early - no longer have a quorum.

Meeting Program Committee:

- Reviewed WC6A recommendations from e-mail.  
 - Rob Smith volunteered to lead the committee. (Archer asked to be removed.) Marr will assist ex officio.  
 - Smith asked for a place on the web presence for this.  
 - First program: where are we today - what do we have?  
 - Cesarone: Meet and greet. Swap stories and information.

VIO Calling Committee:

- Marr published April issue.  
 - Suggested members: Duncan, Wood, Marr, to pull together material.  
 - Wood publishes to the JPLARC web site.

JEARS: JPL Emergency Amateur Radio Service

- Coordinate the Monday noon net.  
 - Will Michael: All JPL ARC will be JEARS unless they opt out.  
 - Charles, WB6KZE was absent last Monday - no one ran the noon net.  
 - Charles sent out the script and membership list to the club exploder so others could pick the net up, ad hoc.

- Howe volunteered to take a turn in rotation.  
 - Will Michael: In 310-106 (EOC) there is an area for JPL ARC so equipment and materials could be left there. Smith volunteered to go to 310-106, listen to the net, and verify that equipment works.  
 - Volunteers will receive significant training and be part of the new JPL Multihazard Emergency Response Plan now in development.  
 - Will Michael will support: Cerro Negro lease, repeaters, repeater links, Goldstone, 449.46 at B35A, HF equipment, shack.  
 - The shack will be EmComm, not JPL ARC.  
 - Proposed committee membership: Archer, Carson, Michael, Smith.

Field Day:

- It is late to be starting a major Field Day effort and we are not yet prepared to do it.  
 - Should we participate with W6UE (Caltech) or W6KA (Pasadena)?  
 - Proposed membership: Derek Lewis/AA8YP, Weber, Archer, Smith

Meeting ended at 13:02 PDT.

## April 4<sup>th</sup> T-1745 Cleanup:

By Jim Marr, AA6QI with photos by Eric Archer, N6CV

Eric Archer, Courtney Duncan, Jim Marr, Walt Mushagen, Chuck Sarture, Rob Smith, & Mike Tope.

T-1745, located next to the JPL ARC "shack", building 173, is scheduled to be eliminated, motivating the club to dispose of what could be disposed of and find a new home for the remainder. JPL Human Resource's Nancy Kapell, who oversees the remaining JPL Recreation Clubs, directed Eric Archer to dispose of other club items in the trailer if those clubs could not be contacted to assist in the cleanup (running, astronomy, bicycle). The bicycle club removed their items but the running and astronomy clubs could not be contacted so their materials were disposed of.

The cleanup crew having been previously trained to deal with the rat droppings that were everywhere in the container (T-1745 is really an old shipping container), spent about half the day doing the cleanup. Radios were moved into B173. Other items were repackaged into more compact form or disposed of.

Before and after pictures of T-1745 show just how much cleanup was done. The first picture shows the "before", the second picture shows the work party (Marr is taking the picture) and the third picture is the "after." Overall, quite successful in compacting the material into something that will be easy to relocate.

## April 18<sup>th</sup> B173 Cleanup:

By Jim Marr, AA6QI

Eric Archer, Jim Marr, Chuck Sarture, Rob Smith, Mike Tope

While not in as nearly bad shape as T-1745, the JPLARC "shack" in building 173 was badly in need of cleanup and organization. Not much had been done in the shack since the 2011 fire that destroyed the antenna feedlines to the antenna farm on the Mesa and the shack remained pretty much as it was left after the last field day in 2010.

Work in process:

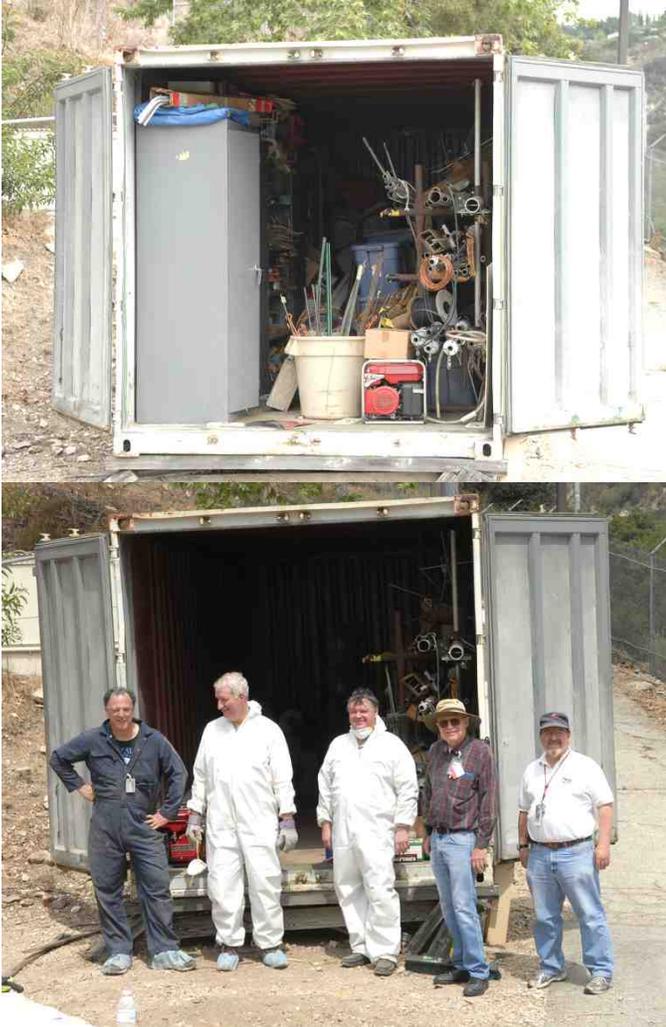


And the result:



Looks nice but at the present there's no antenna available for HF, though a future work party will install an R7000 outside of B173 to allow one HF station to get back on the air.

Most of the other HF gear is still in boxes in the upper right of the next picture. No point in setting it up without antennas to connect it to.





## JPL Hams & Survey:

By Jim Marr, AA6QI (for Bill Weber N6CI)

Bill has taken on the task of identifying how many hams are currently at JPL and what they would like to see in a JPL Amateur Radio Club. After collecting what information we already had about JPL Hams, Bill posted a CQ on JPL Space asking JPL Hams to identify themselves to him.

The net result of this process was that 121 hams were identified, 112 at JPL, one at Table Mountain, and eight at Goldstone.

Bill developed a survey using SurveyMonkey consisting of 10 questions that he sent to all 121 of these identified JPL hams on April 29<sup>th</sup>. As of early May, 81 (about 2/3 of) JPL Hams had responded to the survey and Bill presented a summary of results from the survey to the BoD on May 10<sup>th</sup>. The results of this survey will be described in the June issue of VIO Calling.

If you received an invitation to participate in the survey but haven't yet taken the survey, I would encourage you to do so since the future of the JPLARC will be largely determined by the results from this survey.

Thanks to those who took the time to respond. The results are very, very interesting, so stay tuned for the June issue of VIO Calling!

## Emergency Comm Net:

By Jim Marr, AA6QI

This net, held every Monday at Noon on the 224.08 and 445.20 repeaters, linked to the Table Mountain 223.96 repeater. This net is conducted weekly to ensure that the repeater link to Table Mountain, and thus Goldstone, is working; to give members practice working within a

controlled net, and to give members a chance to listen to the ARRL audio news weekly. Weekly check-in also allows members to ensure that their radios are in working order. Each week there are usually a dozen or so check-ins. Thanks to Chris Carson KE6ABQ and Charles Rhoades WB6KZE for keeping this net running and encouraging members to take a turn at running the net. If you aren't already a regular participant in the net, consider joining us each Monday.

Recently we have checked out the Kenwood TM-642A in 310-106 and the Kenwood TM-710A in the Emergency Communications Van, parked next to building 310, to ensure that they work and are capable of supporting communications when needed. The JPL ARC's Kenwood TM-741A is also set up in B173, working into the four-dipole array attached to the north side of building 156 (adjacent to our B173 shack). All of these radios are programmed to access the WR6JPL and W6MPH (Telco ARC) repeaters and are ready to go.

## New Ham Radio Book:

By Jim Marr, AA6QI

[Riding the Shortwaves: Exploring the Magic of Amateur Radio](#) by Don Keith N4KC, 2012.

From the back cover: "Amateur radio is now 100 years old but continues to evolve, not only keeping pace with technology but often leading the way, just as it has since its very beginning. In this unique blend of amusing and moving anecdotes, practical advice, and informed opinion, best-selling author and active amateur radio operator Don Keith (call sign N4KC) shows those interested in joining the "tribe" of amateur radio (as well as newcomers and old hands) just how magical it can be. With more than 700,000 licensees in the USA and over a million worldwide, ham radio is bigger and more vibrant than ever, with growth in digital communications, software-defined and computer controlled radios, space technology and more. If you think the internet, smart phones, and Facebook have made the hobby obsolete, you are wrong. Like the booming Maker Faire and "hacker" movements, this hobby offers the opportunity to explore any direction desired. Hams combine radio with other activities like RVing, model building, astronomy, hiking, sailing, public service, camping, weather spotting, and more. Written in an entertaining, easy-to-understand style, this book gives myriad practical, real-world examples. A strong knowledge of electronics is not needed but the hobby can lead to careers in engineering, cellular communications, broadcasting, computers and more. And you can learn to design and build your own station, meet new people around the world ranging from rock stars to astronauts aboard the international Space Station, help with emergency communications, experiment with antennas, digital modes, or satellites (yes, there are amateur radio satellites in orbit right now!), or enjoy other exhilarating aspects of ham radio. This book is also the perfect gift for anyone considering getting a ham license in order to join the adventure that is there waiting for them when they ride the shortwaves."