

W6VIO Calling

JPL

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



Volume 36, Issue 9

<http://jplarc.ampr.org>

December 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, W6RMK	4-2075
Director at Large:	Bill Weber, N6CI	4-0490	WR6AZN Trustee:	Bill Wood, W6FXJ	760-256-9576

Upcoming Events:

- Every Monday: Emergency Communications Net: Noon, every Monday, 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 Jan 3rd.**
- JPLARC Regular Membership meetings: Second working Friday every month from Noon to 1pm in 180-703C. Call-in: 818-354-3434 ID 7373. **Next is Jan 17th.**
- **QST, QST, QST: Regular Membership Meeting to be held Friday, Jan 17th at Noon in 180-703C (Telephone call-in: 818-354-3434 ID-7373). Install 2014 Officers. Guest speaker: Rob Smith W6GRV who will report on the results of the 2014 Field Day Survey and implications for 2014 Field Day preparations.**

In this issue:

This issue covers activities through mid December.

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- BOD meetings Nov 8th & Dec 6th
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- Future membership meetings & speaker topics.

President's Corner:

By Jim Marr AA6QI

Season's greetings! It's really hard to believe that we've reached the end of 2013 already. The year certainly went by in a flash but it did turn out to be a very productive year for the club.

The year began with our Cerro Negro repeaters (224.08 and 445.20) having gone off of the air for a couple of weeks at the end of 2012, without an active BOD to deal with it and with a pretty inactive club with no meetings or bulletins for a couple of years. This prompted a group of JPL hams to get together to form an Executive Board to make some decisions about where to go from where we found ourselves.

Now from the other end of the year looking back, we're in a completely different place. During the year, we formed an interim BOD, restored the 147.15 repeater to operation on the JPL Mesa (cabinet 35A), ended up moving the Cerro Negro repeaters to the West end of the JPL Mesa (cabinet 35A) when negotiations broke down with La Canada over the continued use of Cerro Negro, cleaned up both shacks (building 173 and 180-R6, cleaned up container 7145 and moved its contents to container 7111 at the West end of the Arroyo parking lot, put up a Cushcraft R7000 multi-band vertical antenna at building 173 to get us back on HF, put up a Kenwood MA-5 mobile vertical with remote autotuner (K6OEF legacy gift) at 180-R6 to get the FT-847 there up on HF,

conducted a survey of JPL Hams to find out what JPL Hams would want from a club, restarted regular membership meetings with guest speakers – holding six of them during the year, restarted the club bulletin W6VIO Calling, became introduced to the JPL Emergency Amateur Radio Service (JEARS) concept, worked a bunch of issues with JPL's Human Resources and Office of General Council, updated the JPLARC Bylaws, updated the club's equipment inventory, and elected new Officers for 2014 (see elsewhere in this issue). While we couldn't get our act together to do a Field Day (FD) in 2013 (although several of us participated in FD with other clubs), we look forward to an exciting FD event in 2014.

We ended the year with 41 members (28 JPL, 1 Caltech, 5 Retired, 4 Family, and 3 Other), at least 23 (56%) of which are ARRL members (which will allow us to reactivate our ARRL club affiliation).

I would like to personally thank each and every one of you, and especially the other members of the Board of Directors, who helped with this year's activities, all of which we tried to document in this year's issues of W6VIO Calling. We couldn't have done it without your help!

Meetings Nov 8th & Dec 6th

By Jim Marr AA6QI & Courtney Duncan N5BF

Both of these meetings dealt with proposed revisions of the JPLARC Bylaws that were last updated in 1995 and were badly out of date relative to changes that had taken place since then. The Nov 8th meeting was a regularly scheduled BOD meeting but we did not have a quorum so only had a discussion of the proposed changes.

The Dec 6th meeting, advertised as an out-of-sequence regular membership meeting, was attended by a quorum of Board members (Courtney Duncan, Jim Lux, Jim Marr, Chuck Sarture, Rob Smith, and Bill Weber) and one non-Board member (Scott Howe). The presence of a quorum of Board members allowed the Board to approve the proposed Bylaws changes to be carried forward for voting by the dues-current general membership, and authorizing Secretary Courtney Duncan to proceed with sending out ballots per the current Bylaws Article IX.

Secretary Courtney Duncan sent the Bylaws vote request to all dues-current members on Dec 13th and the current Bylaws give members 10 days from that date (i.e., until Dec 23rd) to return their vote. Approval by 2/3 of those returning votes is required for the proposed changes to be approved.

Regular Membership Meeting, November 22nd

By Jim Marr AA6QI

The sixth JPLARC Regular membership meeting of 2013 was held from Noon to 1 PM in 180-703C, with 12 hams in attendance or on the phone. These were: Eric Archer N6CV, Bob Dengler NO6B, Courtney Duncan N5BF, Jorge Gonzalez KI6BJB, Scott Howe KJ6OUL, Mark Lysek AG6TD, Jim Marr AA6QI, Walt Mushagian K6DNS, Steve Noland WA6KLC, Phil Smith WB6LQP, Rob Smith W6GRV, Bill Weber N6CI.

Following introductions, Jim Marr provided an update to the JPLARC Status followed by guest speaker Rob Smith W6GRV who gave a talk on "Your Amateur Radio Web Site." Both presentations are available upon request to Jim Marr. We (still) hope to have a web site in the near future where Regular Meeting presentations will be posted and available to all JPLARC members.



Figure 1: The team that moved the contents of C1745 to C7111: Left to right: Dayton Jones K6DJ, Chuck Sarture KG6NF, Jim Marr AA6qi, Steve Townes WB4ILW, Eric Archer N6CV, Walt Ciszczon KK6DUL, Will Michael KC6LOK

JPLARC Status Update: Jim Marr reminded attendees of the process for electing 2014 officers, after which Bill Weber, Nominating Committee chair, presented the Officer candidates for 2014. These were:

Steve Townes WB4ILW for President, Courtney Duncan N5BF for Vice President, Rob Smith W6GRV for Secretary, and Chuck Sarture KG6NF for Treasurer (his 19th year). No additional nominations were made from the floor. Since there was only one candidate for each office, the JPLARC Bylaws allow voice vote rather than requiring ballots be sent out. It was moved and seconded that a voice vote be taken, resulting in a unanimous approval of the four candidates, giving us our new 2014 Officers. Note that the outgoing president is usually the Director at Large, with the remaining Board positions being appointed by the President and are therefore subject to the new President's review and reappointment after the new officers are installed at the January 17th Regular Membership meeting.

Next, Jim gave a brief update on the status of activities during November (one of which was moving the contents of container C1745 - mostly antennas and coax - to a new container C7111 at the West end of the Arroyo Parking Lot - see Figure 1 above); the Treasurer's report showing a balance of \$2,458.71 in the club Caltech Credit Union account; and a brief preview of potential 2014 regular meeting guest speakers (though subject to change by the TBD new Meeting Program Committee).

Guest Speaker:

Rob Smith then gave his talk on **setting up your own amateur radio web site**. Topics included: Why would you want a web page?; How would you begin?; Free web site options; Paid web site options; Open source content management systems; Building your site; What else can you do?; and Miscellaneous information.

Why would you want a web page? Answers include: Putting a face to your call sign; Tying together your radio and social web presence; Share your experience with others (hardware projects; current issues and challenges and how you faced them; become an online Elmer); Visitor's page (share your station log; guest book; add a comment section to solicit input from others); Coordinate activities (club meetings and events; training and examinations; emergency preparedness activities, status, and information).

Next, Rob showed some examples of what others had done, showing some events, radio related experiments, and station information.

Web hosting options include: free options, subscribed web host provider, and running your own server.

There are lots of free options but they come with restrictions, such as: single page; their name on your URL; rights to posted material; only selected functionality; no business related use; network traffic volume restrictions; storage volume restrictions; one user login ID. Examples of free websites include:

QRZ.com (single page, left justified; includes QRZ logbook; can add pictures or web links); Facebook (can share pictures or photo galleries; post about your station or recent activities; link to the Facebook pages of others); Google Sites (blogger; many templates, including forms with data to Google Docs; web site analysis); WordPress.com (for non-business use; limited plugins, widgets and themes).

Subscribed web host provider options allow you to use your own domain name and have fewer restrictions but can have costs, such as: Web host cost; Domain name registration fees; Network traffic volume fees; Storage volume fees; and Special service fees (e.g., for POP email accounts).

Running your own server has the advantage of being completely under your control but has the disadvantage of requiring more knowledge and effort to set up and maintain.

Rob described the parts of a Web Host consisting of two major elements: The Website and The Domain Name Registration.

The Website has three major components: A place to store information; An IP address; and Web server processes. The web server processes fall into four groups: The web server itself (e.g., Apache web server); A database (e.g., MySQL database), PHP (e.g., PHP software engine); and other features (e.g., e-mail, statistics, redirecting, CMS, etc.). PHP is a popular scripting language designed to produce dynamic web pages (e.g., login, shopping carts, etc.) and needs to be run on a host that has the PHP processor module installed). CMS is a web content management system that provides authoring, collaboration, and administration tools.

The Domain Name System consists of: An IP address (e.g., 000.00.00.000:80); File location on the server (e.g., z:/somedir/mywebsite); and the URL (e.g., <http://w6grv.com>).

Rob provided an example of his 1991 Earthlink web page that used HTML and Cascading Style Sheets (CSS) that provide styles for displaying HTML elements.

Next Rob provided a comparison between three open source content management systems (CMSs): Drupal, Joomla, and WordPress. Drupal (smallest user base) is designed for business & sales, is very powerful but requires significant coding. Joomla is designed for social media with a lot of capability but also requires significant coding. WordPress (largest user base) is designed for writing, doesn't require coding knowledge, has many free themes and plugins available, is easy to manage, and works well for sites with multiple users, while being less capable for handling large complex data.

Next Rob described the steps for installing a content management system (CMS), using WordPress (WP) as the example. The first step is to obtain a Web Host and a Domain Name registration. Some web hosts have a wizard that handles the following steps. The second step, from your web host administration page, is to enable the database and update the database password, then create a WP database (each database has unique steps, so search the web for the detailed instructions for your provider). Third step is to download the latest WP to your local computer and un-compress the file. Then upload (ftp) WP files and directories to your web site and log in to your website using a web browser. Fourth step: on your web site, from the WP dashboard, update 'users', click around to get familiar with the layout, then begin designing your new web site using the CMS interface (WP, in our example case).

Rob then walked us through examples of these steps, first showing the WP default page, and then the WP starting configuration page with some orientation explanations. Rob suggested building a use case model to map out what you, other users, and external RSS feeds will do on your site, helping you identify the individual pages that you will need on your site to enable those uses. Then, storyboard your web pages showing the paths between those pages (how you get from one to the other). Next, set up those individual pages in your CMS (WP in our example). Rob then showed an example of what a basic WP page looks like at this point and what his site (<http://w6grv.com>) looked like at the time (different now).

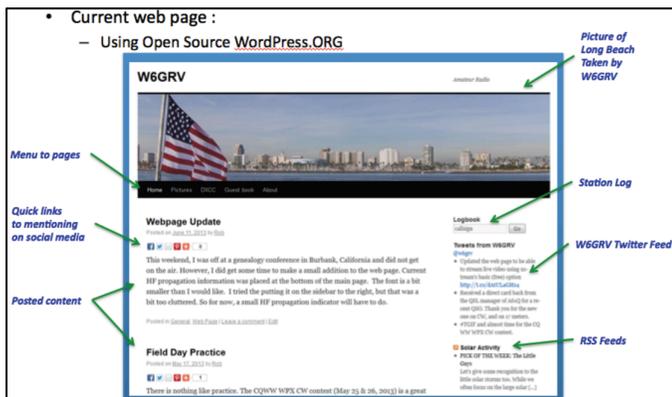


Figure 2: w6grv.com web site (WordPress)

Next Rob discussed using RSS (Rich Site Summary, often called Really Simple Syndication), a family of standard web feed formats, to keep your site content fresh and even allowing you to generate an RSS feed for others to use. Rob showed an example of using an RSS feed to provide Solar Activity information on your site.

Other ways to keep your web site interesting and dynamic include providing your current logbook

entries, or providing live video using HTML code from UpStream or LiveStream.

How to learn more? Lynda.com provides training WP, Drupal, Joomla, PHP, Java, HTML & CSS. YouTube also has some instructional videos but these may not be current (Rob provided a list of a couple of dozen WP YouTube training videos). Training is also available from the CMS websites (drupal.org, wordpress.org & wordpress.com, and joomla.org).

Rob's presentation contained a number of backup slides that weren't discussed during the meeting but which do provide additional information and examples.

Remember, if you would like a copy of this or any other JPLARC regular meeting talk, contact either the original presenter or Jim Marr and we'll be glad to send you a .pdf copy of the presentation.

K6OEF Legacy Gift:

By Courtney Duncan N5BF

Remote High Frequency Tuner Donated to JPL ARC in memory of Ted Pfeiffer, K6OEF

We were saddened last year to hear of the passing of Ted Pfeiffer, K6OEF, who had been associated with the JPL Amateur Radio Club for many years up through the 1990s. Amateur radio and the JPL ARC were represented at a memorial service in February 2012 by Walt Mushagian, K6DNS; Owen and Judy Robbins, KB6WYU and KB6WYV; and Courtney Duncan, N5BF.

I became acquainted with Ted on the club's 220 MHz repeater system upon moving to the area in the late 1980s. At the time Ted and his family lived in Montrose, about six blocks from the house I was renting and we would chat regularly during our commutes or when he was going to pick up his son Martin from work at Foster's Donuts in La Crescenta.

Ted was a teacher in the Los Angeles Unified School District and used amateur radio in the classroom. He was interested in satellite work and coordinated the JPL ARC Field Day satellite position for several years. In 1988, Ted was also the FD "Sanitary Facilities" chair! He participated in club planetary encounter events (such as Voyager at Neptune in 1989) and amateur satellite activities like "SkiTrek" in 1988. Ted organized a Novice class with Gil Yanow, K6TOS, and David Seidel, KC6NRL, at La Crescenta Junior High where Valerie, KC6LWL, Ted's XYL and Diana Mushagian, now K6DNT (K6DNS's XYL), were first licensed.

One summer Ted worked at JPL designing a radio frequency amplifier as a Faculty Part Time employee.

When I ran for the AMSAT-North America Board of Directors in 1990, Ted led the local effort to obtain nominating signatures from local AMSAT members. I

didn't win the election, but with Ted's signature collection plus a nominating endorsement from the JPL ARC, Martha Saragovitz, AMSAT office manager in Greenbelt, MD, told me that I had "by far the best nomination package."

At Ted's memorial service, the amateurs present were approached by the family to take custody of his remaining amateur radio gear for appropriate disposal and I was nominated to lead the effort. Ted's interesting station collection consisted of an ICOM IC-211 (vintage 2 meter all mode rig), a President 2510 (10 meters), several handhelds of various vintages and bands, batteries, chargers, and a collection of antennas, filters, and test items. Over the last year and a half, I was able to relocate these treasures appropriately to various destinations in the regional amateur radio community and in the process raised enough cash to purchase an LDG RT-100 remote antenna tuner and LDG RC-100 controller for the JPL Amateur Radio Club. This tuner and controller will be used to efficiently load the antenna system for the Yaesu FT-847 HF radio at the club's operating position in building 180-R6. The club is grateful for this donation and will make good use of it.

JPL ARC again extends condolences to K6OEF's family: Valerie (ex-KC6LWL) and children Kathy and Martin (ex-KC6ZZR). We are all better people for having been Ted's friend, colleague, and fellow radio amateur.

Say Hi to Juno results:

By Jim Marr AA6QI

Back on October 9th, hundreds of hams around the world took part in an experiment to see whether the Juno spacecraft's Waves instrument (plasma wave and radio receiver) could hear hams sending the Morse code letters for HI. This experiment took place on 10 meters so that there was a high probability of being above the maximum usable frequency (MUF) so that the HF signals would pass through the ionosphere and have a chance to make it to the Juno spacecraft. Groups of hams were assigned frequencies based upon their call sign letters and transmissions were coordinated using the Hi Juno web site that identified key down and key up times for all participating hams.

So, was it a success? From the Juno website...

"Also during the flyby, Juno's Waves instrument, which is tasked with measuring radio and plasma waves in Jupiter's magnetosphere, recorded amateur radio signals. This was part of a public outreach effort involving ham radio operators from around the world. They were invited to say "HI" to Juno by coordinating radio transmissions that carried the same Morse-coded message. Operators from every continent, including Antarctica, participated. The results can be seen in this video clip: <http://www.jpl.nasa.gov/video/?id=1263> . A four-minute

video depicting the efforts of a few of the amateur radio operators who participated in the event can be seen at: <http://www.jpl.nasa.gov/video/?id=1262> "

How to sign up for the JPLARC email reflector:

By Jim Marr AA6QI

The JPLARC maintains an email reflector (also called an email exploder) that allows members to post questions or comments that will reach the entire JPLARC membership. Only subscribed members can post to this reflector, avoiding spam from non-members. Sign up using the form located at <http://wr6jpl.ampr.org/mail-man/listinfo.cgi/jplarc>. This is a moderated group with a busy moderator so be patient after signing up.

Future Meetings

By Jim Marr AA6QI

All JPLARC meetings are being held on Friday's from Noon to 1 PM in 180-703C for the time being. Call in is via MeetingPlace 818-343-3434 with ID 7373. Slides will be broadcast via <http://meetingplace.jpl.nasa.gov> also with ID 7373.

Jan 17th, 2014:

- JPLARC 2014 Officers will be installed.
- Rob Smith will discuss the results of his Field Day survey.

The remainder of the 2014 speakers is still in work and is subject to change by the new Program Committee. If you'd like to participate on the Program Committee, let any of your Board members know of your interest, as we'd love the help. The same goes for any of our other standing committees.

Do you have gear for sale or that you're looking for?

By Jim Marr AA6QI

If you have gear that you would like to sell or are looking for a piece of gear or help with some issue, why not list it in the next issue of W6VIO Calling? The listing is free and reaches a significant number of local hams.



<http://www.hamradio.com>