

---

---

# W6VIO Calling

# JPL



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

---

**Volume 40, Issue 3** [w6vio@arrl.net](mailto:w6vio@arrl.net); <http://jplarc.ampr.org> **Mar 2017**

---

President (2017):	Jonathan Cameron, KF6RTA	4-1189	EmComm. Mgr:	Chris Gaylord, W6YTB	4-5584
Vice President (2017):	Josh Miller, KB3UUS	4-0835	W6VIO Trustee:	Rob Smith, W6GRV	3-7937
Secretary (2017):	Matt W. Bennett KF6RTB	3-8200	W6JPL Trustee:	Eric Archer, N6CV	4-7350
Treasurer (2017):	Chuck Sarture, KG6NF	4-2706	WR6JPL Trustee:	Jim Lux, W6RMK	4-2075
Director at Large:	Steve Townes, WB4ILW	4-7525	WR6AZN Trustee:	Bill Wood, W6FXJ	760-256-9576
Newsletter editor:	Jim Marr, AA6QI, email: aa6qi at arrl.net (your articles for the newsletter are requested - please)				

---

## Upcoming Events:

- **Emergency Communications Net:** Every Monday at Noon, on WR6JPL 224.08/(-)/156.7 & 445.20/(-)/DCS-365 (or PL 103.5), and WR6AZN 223.96/(-)/156.7 & WR6AZN 447.20/(-)/94.8 on Table Mountain.
  - **JPLARC Regular Membership meeting:** Second working Friday every month from Noon to 1pm. Next is **March 24, 2017, JPLARC Facilities Tour. No call-in. Meet at the new shack, B329, at Noon.**
  - **JPLARC Board of Directors (BOD) meeting:** Normally, the first working Friday, every month, from Noon to 1pm and usually in 180-703C. The next BOD meeting will be **April 7, 2017.** Call-in: **TBD.**
  - For more upcoming events, see the ARRL Los Angeles Section website: <http://www.areslax.org>
  - **JPL Retiree Nets:** Saturdays, 8:30pm on 1.990 MHz LSB and Sundays, 2:00pm on 7.185 MHz (or 3.850 MHz) LSB.
- 

## In this issue:

Topics in this issue:

- Editor's Thanks
- Regular Membership Meeting Feb 24<sup>th</sup>
- BOD meeting Mar 10<sup>th</sup>
- JPLARC Website Improvement
- Emergency Communications (Formerly: JEARS)
- ARRL Membership
- Future membership meetings & speaker topics

## Editor's Thanks

By Jim Marr AA6QI

This issue marks the end of four continuous years of my editing the JPLARC monthly newsletter, W6VIO Calling.

We restarted publishing the newsletter in April 2013 after a group of us had worked several months to get the club operating again as a club, which it hadn't really been doing for a lot of years. Indeed, in the nine years prior to the April 2013 issue, there were only three issues of the newsletter published (posted to the [jplarc.ampr.org](http://jplarc.ampr.org) web site) and the club membership and participation had fallen significantly. Many club facilities had fallen into disrepair and the amount of

work required to get things going again seemed daunting but has now been largely accomplished with great success thanks to your support. You can follow some of what was done in the issues of W6VIO Calling beginning in April 2013.

I've had lots of help in getting these issues out each month, including: editor training by Bill Wood W6FXJ; proof reading by Michele Marr KC6FSP, Rob Smith W6GRV, Bill Wood W6FXJ, Jonathan Cameron KF6RTA and occasionally others who generously pointed out my many mistakes; posting to the club website by Bill Wood W6FXJ and Rob Smith W6GRV; and content submittal by many. I sincerely thank everyone who has helped make this newsletter possible over these four years.

Now that I've been retired from JPL for just about two years and with the recent change in JPL visitor policy that essentially prohibits JPL retirees from participating in any on-Lab JPLARC activities, it is time for me to move on to other amateur radio activities.

I would also like to thank Jim Lux W6RMK for stepping up to become your newsletter editor going forward. Jim has been a long-time member of the JPLARC and has contributed to the club in many ways over the years. I'm sure that Jim will do a much better job as editor going forward than I have.

# Regular Membership Meeting Feb 24<sup>th</sup>

By Jonathan Cameron KF6RTA

**Present:** Eric Archer N6CV, James Bartok KK6IHF, Matt Bennett\* KF6RTB, Gary Block† KJ6IZX, Jonathan Cameron†\* KF6RTA, Doug Clark† WA6IFY, Bob Dengler NO6B, Chris Gaylord†\* W6YTB, Dave Gumpertz† KM6FCE, Mark Lysek† AG6TD, Josh Miller\* KB3UUS, Steve Townes†\* WB4ILW. **Phone or JPLWebex:** Chris Carson KE6ABQ, Kathleen Harmon KM6GBY, David Hodges KI6PMB, Jim Marr† AA6QI, Tina Martinez-Rocha, Mike Roche† N6XLK, Chuck Sarture\* KG6NF, Bill Weber† N6CI.

Note: † indicates a 2017 regular voting member (i.e., JPL/Caltech/Retiree **and 2017 dues paid**), †† indicates an associate (non-voting) member, and \* Indicates a 2017 BOD member. For a regular meeting quorum, the JPLARC Bylaws require a majority of the BOD (four or more) and at least five other regular (voting) members. Present were six Board members, seven other 2017 regular members, and seven non-members (haven't paid 2017 dues yet) for a total of twenty attendees, so there was a quorum.

**Membership Renewal:** Download the latest membership form from "How to become a Member" section at the end of "Who We Are" page at: [jplarc.ampr.org](http://jplarc.ampr.org). The PDF Form has been updated to be a "Fill-in" form so you can download it, fill it in, print it, and then mail it with your check to: Matt W Bennett, MS 321-364 (note the "W" since there are two Matt Bennett's at JPL). Thanks in advance for renewing soon.

**Presentations:** Upcoming regular membership meeting presentations were discussed (see the list at the end of this newsletter).

**Member Show-n-tell:** This meeting was specifically set aside for a few members to describe their own personal amateur radio activities.

- **KF6RTB:** Matt W. Bennett discussed two past activities: 1) Aerial APRS plus ISS "Lifeline" in the Desert; and 2) Mobile HF Setup and Contesting. He also briefly discussed his interest in using ham radio during sky diving.

Aerial APRS plus ISS "Lifeline" in the Desert: Matt described his small plane flight from LA to Saline Valley, CA, tracking his position using his Yaesu VX-8GR handi-talki (Figure 1). When he reached his destination, he used an Elk log periodic antenna that he borrowed from Bob AE6S to allow him to relay his position via the ISS (Figure 2), although he cautioned about relying on the ISS APRS as an emergency communications system for remote treks because the ISS

isn't always on and even when it is you're usually competing with much more powerful stations.

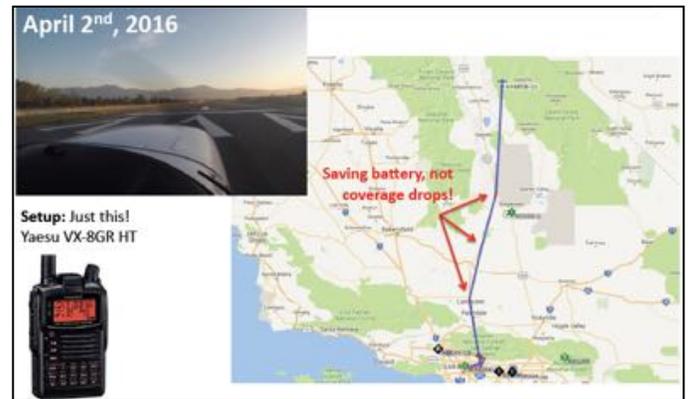


Figure 1: KF6RTB's APRS tracking trip from LA to Saline Valley, CA.



Figure 2: KF6RTB using ISS APRS to report his position once at Saline Valley, CA.

Mobile Contesting: Matt installed an Icom IC-7100 HF/VHF/UHF radio in his car, with an LDG LT-100 tuner tuning 15/20/40m Ham Sticks and using N3FJP contest software on a Win10 8" laptop (Figure 3).



Figure 3: KF6RTB mobile HF installation

Using this setup, Matt was able to achieve the 2<sup>nd</sup> highest mobile score in the 2016 CA QSO Party, with 197 contacts in 44 states over approximately seven hours and

was able to do a bit of unplanned contesting, including working a significant amount of DX.

**Ham Radio and Sky Diving:** Matt expressed interest in using APRS while using his wingsuit and doing voice QSOs while skydiving (Figure 4).



**Figure 4: KF6RTB using radio while skydiving**

- **NO6B:** Bob Dengler brought in a 25W General Electric MVP radio that Bob uses as the core of his 440 MHz repeater system. You can read about how Bob modified this radio at: <http://www.repeater-builder.com/ge/mvp/no6bmvpcconversion.html>

- **N6CV:** Eric Archer described his home station installation. Unfortunately, slides/pictures from his presentation were not provided for this newsletter.

- **KF6RTA:** Jonathan Cameron shared his VHF/UHF base station installation in which he used plastic rainspout to camouflage the coax running across under the eaves above his front door (Figure 5). You can see part of the coax just to the upper right of the door as it enters the rainspout. The coax enters the house through a PVC pipe through the wall in the upper left corner just at the upper right of the letter "K" in Jonathan's callsign.



**Figure 5: KF6RTA use of plastic rainspout to camouflage coax**

- **KB3UUS:** Josh Miller described his adventures with Free-to-Air Ku band (12 GHz) commercial satellite

transmissions, which uses the same basic technology as direct broadcast satellite such as Direct TV and Dish Network but for which no subscription is required.

**What can you pick up?** Josh reports that there are about 70 geostationary satellites visible from North America. **C band** downlinks are still being used for network feeds and syndication because of better link margins (no rain fade like Ku band). Some of these C band transmissions are "in the clear," meaning not encrypted, and are most often what you would see on regular TV. C band does require a BIG dish (6+ feet) (Figure 6, left). **Ku band** uses a smaller antenna (Figure 6, right) that is just a little bigger than a DirectTV antenna and carries some network feeds (e.g. NBC has 4 network feeds on 103°W for east, central, mountain and pacific time zones). Plus there are a lot of "wild feeds" (temporary, for distributing video usually from live events), which is what Matt is interested in since they can be a lot of fun because they're unedited, often just raw camera video and audio that's being sent back to the studio or network HQ. Plus, there are hundreds of music channels on 103°W that include Muzak subscriptions for retailers and restaurants.



**Figure 6: C band antenna (left) and KB3UUS's (\$100 on eBay) Ku band antenna (right)**



**Figure 7: KB3UUS \$40 X2sat mini-HD receiver sitting on his Direct-TV receiver**

Matt uses an X2sat mini-HD receiver that he purchased from Amazon for \$40 (Figure 7).

**Resources:** See [www.lyngsat.com](http://www.lyngsat.com) for a listing of satellites, transponders and what's on the transponders. See [www.satbeams.com](http://www.satbeams.com) for an in depth description of

satellite footprints, their parameters and beacon frequencies (useful for aligning your antenna).

## BOD Meeting Mar 10<sup>th</sup>

By Jonathan Cameron KF6RTA

Present were: Matt W Bennett\* KF6RTB, Gary Block† KJ6IZX, Jonathan Cameron\* KF6RTA, Doug Clark† WA6IFY, Bob Dengler NO6B, Dave Gumpertz† KM6FCE, Jim Lux W6RMK, Josh Miller\* KB3UUS, Chuck Sarture\* KG6NF, Eric Shalov† KJ6ARC, Rob Smith† W6GRV, Mike Torode, Steve Townes\* WB4ILW. On the Phone: Paul Averill KM6BZX, Chris Carson KE6ABQ, Kathleen Harmon, Jim Marr† AA6QI, Walt Mushagian K6DNS, Bill Weber† N6CI.

Note: † indicates a 2017 regular voting member (i.e., JPL/Caltech/Retiree & 2017 dues paid), †† indicates an associate (non-voting) member, and \* Indicates a 2017 BOD member. For a BOD meeting quorum, the JPLARC Bylaws require a majority of the BOD (four or more) to be present. Present were five BOD members (plus seven other 2017 regular members and seven non-members who haven't paid 2017 dues yet) so there was a quorum.

**JPLWebex** is changing to [jpl.webex.com](http://jpl.webex.com) sometime in the very near future (in transition now). Jonathan will let membership know when this happens.

**Membership Report:** Secretary Matt W Bennett reported that we have 38 total 2017 paid up members, with 33 of those being voting members and 73% of voting members being ARRL members. Renewals are rolling in rapidly.

**Treasurer's Report:** Treasurer Chuck Sarture presented the Treasurers report. Chuck reported that there was income of \$320 from 2017 dues and no expenses. Thus, beginning balance of \$3,992.75 increased to ending balance of \$4,312.75.

**Guest speaker program update:** Upcoming talks and potential talks were discussed (see the list of upcoming talks at the end of this newsletter). Potential talks include: Using the IRLP system/setting up your own IRLP node; DXing and DXing practices; Working an amateur satellite; Microwave communications and new geosynchronous amateur satellite (uses C/X band up/down link).

If there are topics that you are interested in or something that you would like to give a talk about, please contact Josh Miller KB3UUS or Matt W. Bennett KF6RTB.

**Net Check Ins:** We continue to have around 25 check-ins weekly on the Monday Noon net, including increased participation noted from ALERT (ALtadena Emergency Response Team) members.

**New Newsletter Editor Needed:** Jonathan discussed the urgent need for someone to take over editing the

JPLARC monthly newsletter beginning in April, as Jim Marr, who has been editing the newsletter since 2013, will not be able to continue following the March issue.

Jim Lux W6RMK volunteered to take over as newsletter editor starting with the April issue. Thank you Jim Lux!

**Budget Discussion:** Figures 8 and 9 show the proposed 2017 JPLARC expenses and balance sheet that was approved by voting members (33 voting eligible, 16-yes; 5-no), although there were a number of members who thought that the purchase of a new HF radio should be postponed.

Category	Item	Budget Amount
<b>Miscellaneous Operating Expenses</b>		
	La Canada Post Office Box	\$ 70.00
<b>Equipment Maintenance &amp; Repair</b>		
	Equipment maintenance & repair	\$ 300.00
	Purchase new HF Radio	\$ 1,600.00
	Mesh Networking Equipment (approved in 2016)	\$ 800.00
	Misc (eg, backup power circuits for 180-R6)	\$ 400.00
<b>Field Day (assuming joint event at the Art Center with PRC again)</b>		
	Generator Auxiliary Fuel Tank	\$ 130.00
	Generator oil and gasoline	\$ 25.00
	Antenna materials (wire, guys, stakes, etc.)	\$ 100.00
	Logging Software	\$ 50.00
<b>Internet Services</b>		
	Hardware (CPU, Display, B/U services, cables, etc.)	\$ 200.00
	Software (linux, web hosting/maintenance, etc.)	\$ 200.00
		Total: \$ 3,875.00

Figure 8: Proposed 2017 JPLARC expenses

• <b>Beginning Balance:</b>	<b>\$3777.75</b>
• <b>Estimated Income:</b>	<b>\$1100.00 (55 x \$20)</b>
• <b>Expected Funding:</b>	<b>\$4877.75</b>
• <b>Projected Expenses:</b>	<b>\$3875.00</b>
• <b>Expected End Balance:</b>	<b>\$1002.75</b>

Figure 9: Estimated 2017 JPLARC Balance Sheet

**Proposed revised budget:** Even though the budget above was approved by the voting membership, Jonathan proposed that a revised budget (Figure 10) be sent out for a second vote [ed - a second vote is really not needed; just don't buy the transceiver.]

This revised budget makes several changes to the Equipment Maintenance & Repair category, as follows:

- Deletes the \$1,600 HF radio cost but creates an HF Radio Fund to which it proposes adding \$500 for 2017;
- Increases the Mt. Wilson Linking Project proposed budget from \$800 to \$1,000;
- Reduces the Miscellaneous category by \$100.

The budget also proposes creating a new RESERVE category with \$2,000 allocated to it.

There was a lot of discussion about this RESERVE

category, especially about how the club would use it. Is this a “never go below this” number or is there some rationale that the club should clearly define for when and how to use this RESERVE?

Jim Marr suggested a multi-year look ahead to forecast equipment purchase needs and also noted that in 1996, the club allocated expenses that equaled the planned income for that year, so there isn't a precedent for having to maintain any specific reserve.

Item	Original	Updated
Starting Balance:	\$ 3,778	\$ 3,778
Expected Income:	\$ 1,100	\$ 1,100
<b>Miscellaneous Operating Expenses</b>		
La Canada Post Office Box	\$ 70	\$ 70
<b>Equipment Maintenance &amp; Repair</b>		
Equipment maintenance & repair	\$ 300	\$ 300
Purchase new HF Radio	\$ 1,600	-
HF Radio Fund	\$ -	\$ 500
Mt. Wilson Linking Project (mesh, etc)	\$ 800	\$ 1,000
Misc (eg, backup power circuits for 180-R6)	\$ 400	\$ 300
<b>Field Day (assume Art Center with PRC/CITARC again)</b>		
Generator Auxiliary Fuel Tank	\$ 130	\$ 130
Generator oil and gasoline	\$ 25	\$ 25
Antenna materials (wire, etc.)	\$ 100	\$ 100
Logging Software	\$ 50	\$ 50
<b>Internet Services</b>		
Hardware (CPU, Display, B/U services,	\$ 200	\$ 200
Software (linux, web hosting/maintenance,	\$ 200	\$ 200
<b>Total Expenses:</b>	<b>\$ 3,875</b>	<b>\$ 2,875</b>
<b>RESERVE:</b>		<b>\$ 2,000</b>
<b>Final (Start + Income - Expenses - Reserve):</b>	<b>\$ 1,003</b>	<b>\$ 3</b>

Figure 10: Proposed revised 2017 JPLARC expenses

Steve Townes suggested that really it's only the expenses associated with things we do every year (e.g. Field Day, PO Box) that need to not exceed the income for each year.

Bill Weber asked whether there was historical data and noted that the current treasury balance is much higher than he recalls from prior years. Treasurer Chuck Sarture will put together a budget history for the BOD.

#### Work Party Reports:

- On Tuesday, February 28<sup>th</sup>, Jonathan Cameron, Steve Townes, Josh Miller, and Lew Soloway AC6LS lowered the mesh node mast on the Mesa and removed both mesh nodes that had apparently failed.
- Saturday March 4<sup>th</sup>, Jonathan Cameron and Steve Townes worked on the Mesa HF installation. They moved old/discarded antenna parts away from the base of the Rohn tower. They set up the grounding frame and grounding strap for grounding the Mesa end of the hardlines. Much work still remains to complete the hardline Mesa-end terminations.
- Saturday March 11<sup>th</sup>, Jonathan Cameron, Steve Townes, Gary Block KJ6IZ and Josh Miller restored the repaired Mesa mesh network nodes (Figure 11). Water had entered the Ethernet cable, ruined the power injector, shorted out the Rocket M5 mesh node so that it went to default settings and messed up the Nanostation M5. The Rocket was fine after reconfiguring but the

Nanostation problems have not been resolved so the group replaced it. The Rocket M5 is at the top of the guyed mast in Figure 11 and has a “sector” antenna that is pointing towards East Pasadena/Arcadia. The Nanostation M5 is pointing down to building 180 to provide a mesh link between the nodes on the roof of 180 and the nodes on the Mesa.



Figure 11: March 11 Mesh node restoration work party (left to right: Jonathan Cameron, Steve Townes, Gary Block & Josh Miller).

**Bylaws changes:** Jonathan will schedule a separate meeting in the near future to go over proposed changes to the JPLARC Bylaws.

**Update of the JPLARC website:** Eric Shalov KJ6ARC had prepared a presentation for last month's BOD meeting describing the features and improvements that the use of one of the commercial web site providers would enable but there wasn't sufficient time during this meeting to go through them at that meeting so they were discussed during this month's BOD meeting. [ed: See separate article later in this newsletter that provides the content from Eric's slides.]

**Southern California Linux Expo:** Was held March 2<sup>nd</sup> through 5<sup>th</sup>, 2017 at the Pasadena Convention Center. Jonathan Cameron helped staff the AREDN/Mesh Networking Booth. An informative link about the ARDEN network is: [www.aredn.org/content/cq-january-2017](http://www.aredn.org/content/cq-january-2017).

**Other nets/clubs:** (1) JPL Retiree nets (occasional): (a) 160m net: Saturdays 8:30pm-9:30pm on 1.990MHz LSB, and (b) 40m net: Sundays 2:00pm to whenever on 7.185MHz LSB (sometimes moves to 3.850 MHz if 40m conditions aren't very good); (2) Pasadena Radio Club, meets 4<sup>th</sup> Tuesday of every month at the Kaiser facility in Pasadena. See w6ka.net; (3) The Altadena ALERT net meets Mondays at 8pm on the W6MPH repeater (145.18, -, 156.7), followed by a simplex net on 147.480 MHz (ALTA1).

# JPLARC Web Site Improvement

By Eric Shalov KJ6ARC

The following slides were prepared for the Feb 10<sup>th</sup> BOD meeting to stimulate a discussion about moving the [jplarc.ampr.org](http://jplarc.ampr.org) web site to a commercial service but there wasn't time to discuss them during that Board meeting. Thus, they were discussed at the March 10<sup>th</sup> BOD meeting.

## Off Site Managed Hosting:

- No server / operating system to maintain/backup/upgrade/etc.
- Shared-hosting providers are staffed to monitor for DDoS (distributed denial of service) attacks, common security vulnerabilities, so you don't have to [as much]
- Just focus on the site design and content
- Generally better bandwidth/peering from off-Lab visitors. (Faster site loading = higher search engine ranking)
- Able to be managed by whomever the Board selects
- Affordable (DreamHost is \$8/mo., HostGator is \$4/mo., etc.) – Will pay for itself if it attracts more members
- SSL a good idea to protect members and to improve site ratings. (This may require controlling our own domain name.) Free SSL certs available from Let's Encrypt

## WordPress:

- Open source "content management system" (CMS), managed by a large team of volunteers
- Used by more than 26% of the top 10 million websites
- Effectively a "blog" where members can post amateur radio-related news, local ham event info, news about club activities, pictures/stories about members' RF adventures
- Current site content can be easily migrated
- Modern look will make JPL ARC appear less defunct to online visitors
- Allows for multiple contributors, so site won't get "stale" so easily
- Written in PHP, completely customizable
- WordPress has over 40,501 plugins available, providing almost any feature that you could ask for
- One-click backups, upgrades

## Possible new site features:

- Event calendar
- Members-only content like a Member Directory
- SoCal Repeater directory (Possibly port from existing website with MS Access DB)

- Club history page, with pictures
- Web-based chat room / message board
- News feed driven by RSS of online news sources, filtered for amateur radio

## JPLARC Facebook Page:

- Reach a more diverse audience with the effects of social networking
- WordPress plugins can automatically post new site articles to Facebook feed
- Attract new members and keep current ones better informed

## A Team Effort:

- A web site needs an organizer/custodian/administrator, but that person shouldn't be responsible to maintain all the site content nor be the only contributor.
- EVERYONE can contribute SOMETHING – make a quick post about an upcoming event, offer to maintain the site Event Calendar, post a photo from the last Field Day, show off an interesting QSL card, etc.
- No contribution is too small. Except for NO contribution!

## Learn more:

- <https://wordpress.org/>
- <https://www.facebook.com/pages/create>
- <https://www.dreamhost.com/hosting/shared/>
- <https://letsencrypt.org/>

**Email Exploder:** Recall that the [jplarc.ampr.org](http://jplarc.ampr.org) web site, the [jplarc at wr6jpl.ampr.org](http://jplarc.wr6jpl.ampr.org) email exploder (MailMan) and the 224.08/445.20 repeater IRLP/Echolink interface are all hosted on a very old PC located in 180-R6. Bob Dengler, NO6B has prepared RaspberryPi-based replacement for the IRLP/Echolink interface and is waiting for a decision regarding the web site and email exploder prior to proceeding with installing it. Thus, these decisions are linked.

# Emergency Communications

By Chris Gaylord W6YTB

*Ed: This article is unchanged from the February newsletter.*

As you may have seen in the news, Louisiana was recently hit by rare tornados that caused widespread damage, including to the NASA Michoud Assembly Facility. While California also rarely experiences tornados, they are not unheard of and even with our normally mild weather other severe weather events can occur. Recent storms have caused a number of weather-related issues throughout California.

SKYWARN is a program operated by the National Weather Service to train a network of weather spotters in the recognition and classification of different severe weather events including thunderstorms, hail, lightning activity, and other conditions. Weather spotters who have been trained and certified by their local NWS office serve as additional eyes to help the NWS identify and track developing weather hazards in conjunction with weather radar and other forecast tools. The Los Angeles/Oxnard NWS office offers both the training and the certification exam free of charge online through their website at

<http://www.wrh.noaa.gov/lox/spotter/>. Even if you do not want to become an official spotter, you can review the slides for your own weather education. If you wish to become a spotter, you can also complete the certification exam and upon receipt and review by the office (this can take several months due to staffing levels) you will receive a SKYWARN Spotter ID number and other informational materials on how to submit official weather reports to the NWS.

-----

*Club members who work on-Lab and are interested in providing communications support during emergency situations are encouraged to join the JPL Emergency Amateur Radio Service (JEARS). Prospective JEARS members must be currently licensed (any class) and complete four online FEMA courses. An online application and links to the courses are available at <http://gotojears> (only accessible from on-Lab). Emergency credentials and additional training will be provided after joining.*

*For more information, please contact Chris Gaylord W6YTB at [christopher.gaylord@jpl.nasa.gov](mailto:christopher.gaylord@jpl.nasa.gov) or (818) 354-5584.*

## ARRL Membership:

By Jim Marr AA6QI

As an ARRL affiliated club, we need to maintain at least 51% ARRL membership among our voting 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, contact the club Secretary (see the header at the beginning of this newsletter) 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.

## Future Meetings

By Matt W Bennett KF6RTB

All JPLARC meetings are being held on working (i.e. non-RDO) Friday's from Noon to 1 PM in 180-703C (unless otherwise indicated). The BOD meets on the first working Friday each month and the regular membership meeting is held on the second working Friday of each month. When there is a third working Friday in a month, the Board can decide whether or not to hold an additional BOD meeting on that third working Friday.

Upcoming regular membership meeting talks (always subject to change):

**April 21<sup>st</sup>:** AMSAT Future (Patrick Stoddard WD9EWK)

**May 19<sup>th</sup>:** Field Day discussion and planning (Matt W. Bennett).

**June 16<sup>th</sup>:** Setting up your own mesh network node (Josh Miller KB3UUS).

**July 14<sup>th</sup>:** Digital Amateur TV (Ken Konechy W6HHC)