

SCOPE

A newsletter by and for the Palomar Amateur Radio Club of San Diego, California.

Challenge question to the club:

What was the first FM 2m frequency pair? Why?

Article within the next month or two. Good luck!



Do you have a mobile installation? Do you want to have a mobile installation, and need some motivation?

We're looking for a few good mobile installations - whether they're completed, on the drawing board, or half-way done and tripping you and your passengers every time you get in and out of the vehicle - to be featured in the Scope. We'd love to show your installation.

Tips, narratives, explanations, techniques, problems encountered and solved (or encountered and evaded) are what we're looking for. Send them in!

scope@palomararc.org

Here's the highlights of this August issue of the Palomar Amateur Radio Club Scope Newsletter.

Read about our ARISS presentation beginning page 3. Two mobile installations compared and contrasted begins on page 4. There is a special letter from JARL on page 8. An article about the nature of QSLing in an era of electronic communications begins on page 9. An update on 39A, news about our 10-X membership, and additional Field Day results are on pages 12-13. At the end of the Scope are technical reports on items that are available for a nominal fee, donated to the club. These items will be available at upcoming club meetings.

Save the Date

Club Meeting
3 August 2011

Hear about the March 2011 YLDXpedition to Curaçao and Lithion Ion Battery Life.

Board Meeting
10 August 2011

Palomar Amateur Radio Club board meeting at 7:00pm at K2RP QTH.

Club Picnic
28 August 2011

9:30am until dusk at San Dieguito Park. Operating stations, food, and fun!

Club Membership for August Edition

Here is the list of members receiving the SCOPE on the web, that have let their membership "expire" in the last month or so. Please check this list, and get your renewal checks in the mail! Pretty PLEASE!!!
 N6FF, KI6KJG, KF6UVF, KI6MMT, KB7XI, W6UDO, AB6RM, WB6NFK, AND AC8Q.

Last year we sent out nearly 100 postcards to past members that let their membership run out (2010). A common response was that their failure to renew was an oversight, and quite a few sent in more than one year's renewal! Must be time to try that again!

I now have a list of 88 folks that elected to receive their SCOPE on the web - That have forgotten to renew their membership.

AI
 W6GNI

July Issue Fold & Staple Crew
 W6GNI AI & Kathy, WD6FWE Don, KB6NMK Jo & Toby
 (The Tough and Ready)

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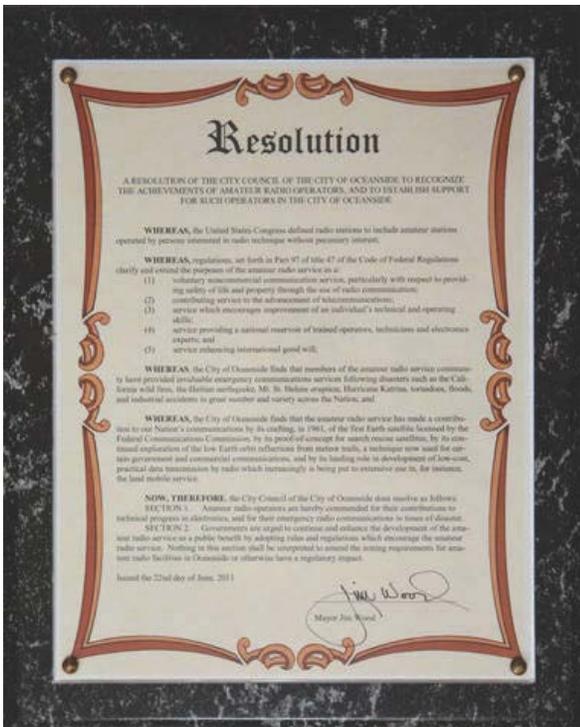
See catalog at www.Palomar-Engineers.com

Please check our complete ads in **QST**, **CQ**, and **WorldRadio** magazines.

Below, the speaker for the July meeting takes the podium. Jim KI6ZUM described the ARISS contact at Adobe Bluffs Middle School. Far below, Dennis KD6TUJ holds up the Oceanside Amateur Radio Proclamation.

Photographs from the Meeting

by Paul KB5MU



Advertisements are free for members

Have items that need to find a new home? Advertise here! Send your ads to scope@palomararc.org

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SX101 Receiver \$ 175.00
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Bob, K3QEP

For Sale

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w6hph@yahoo.es

PARC meeting 6 July 2011

by Michelle W5NYY

Rigblaster Plus 2 wraffle will continue to the August meeting.

We had many new members and guests, including Tom N6RTI from Oceanside, Tom N6FEY and Grace W6ULW visiting from Monterrey county, AG6EF, and KJ6GA. Paul KB5MU will write a letter of appreciation to the nice lady at Lusardi Construction who allowed us to use the Field Day site.

Jim KJ6ZUM gave a presentation about ARISS.

We had the pleasure of talking to astronauts on ISS via ham radio from Adobe Bluffs Elementary School on Feb 3, 2011. Auditorium was full of kids. Entire school was present K-5. It takes 1.5 to 2 years from application to contact. Entirely volunteer, worldwide program, STEM inspiration. 630 ARISS contacts have been made, which is radio communciations with the ISS in orbit.

There are 12 telebridge stations round the globe. There are 160 members of the ARISS ops team.

Application process has changed dramtically since they applied about two years ago. It's now an open process. July 15th cutoff date, only best applications are approved. 6 months before the contact occurs a mentor or coordinator is assigned.

The principal of Adobe Bluffs was involved during the entire time and helped with the iterative process of the application. There was lots of waiting. Signed release forms must be submitted by each student's parent or guardian. A small selection of dates was presented after a lot more waiting. There

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Two Mobile Installations

by Doug W6PUG

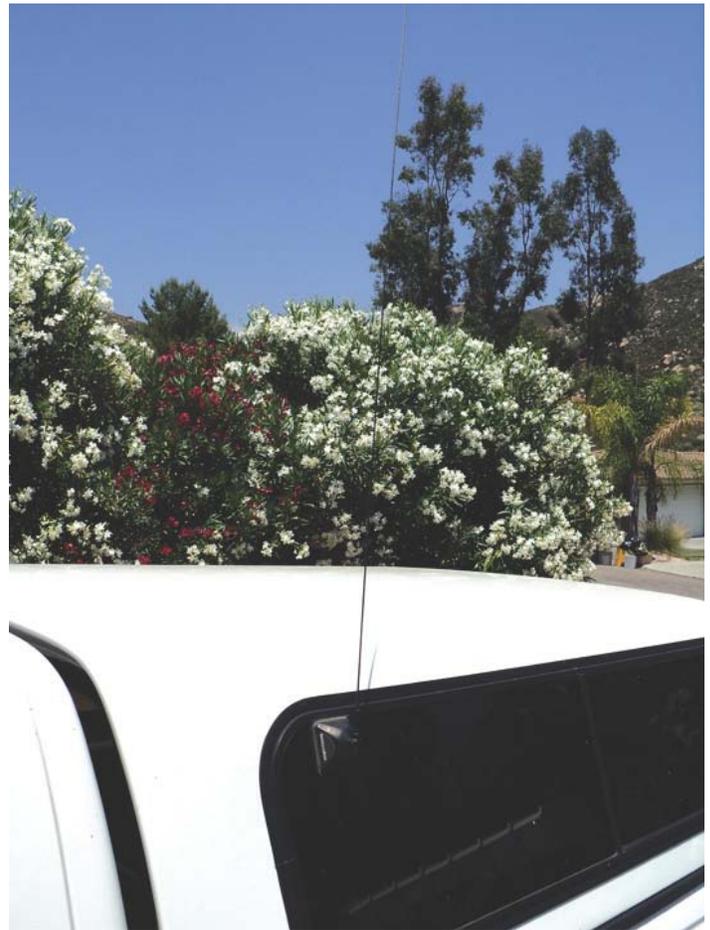
In response to your request for information on mobile installations, attached are photos of my two mobile installations, and the following notes. The first one was easy - the Toyota Tacoma.

- dash removal is easy
- Remove the junk tray from underneath the FM radio
- FT-2900 bolted straight into the stock frame holding the audio system
- The operation labels are on the top of the FT-2900 and the stock frame permits the FT-2900 to be mounted properly
- Wire tray under driver side door is large enough to accommodate all wiring to speaker and antenna
- Speaker is mounted right behind the driver seat up high enough to make hearing very clear, even in a noisy pickup
- Antenna wire is run through a rubber grommet to leave the cab; returns inside the bed through another grommet, and a glassmount Larsen antenna is used - so I have no holes drilled in the body and transmission and reception reports are excellent.
- Grounding is critical in any mobile installation
- Ran power directly from fused battery connections, both positive and negative.
- This installation has performed well for 2+ years, and I believe is a typical effort for a "conventional" installation.

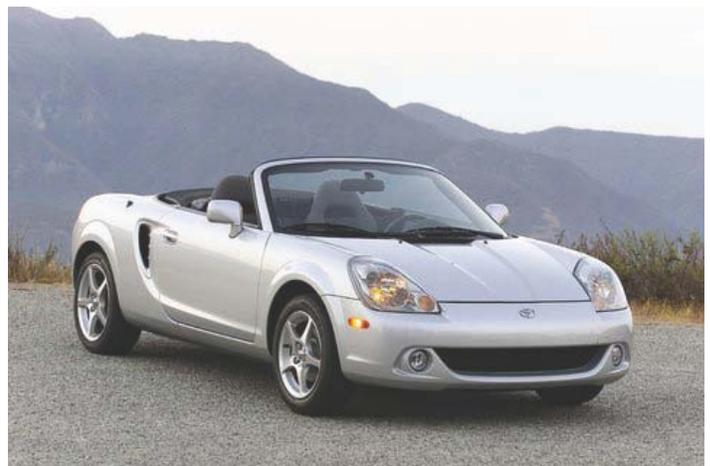
The Toyota MR2 Spyder is a bit more of a challenge

- VERY LITTLE storage space
- Cockpit space is small.
- Short term is a Lido LM-300 bolted to the passenger seat mounting stud, and my handheld clips onto a small plastic plate. I can use the Lido mount for my GPS, handheld, or my mobile phone
- In longer term, I am planning on putting FT-7900 head on the Lido mount, the body of the radio in the (very small) storage compartment behind the drivers seat, and a "trunk clip" Larsen antenna on the boot (MR2 is mid/rear engine). This makes for shortest coaxial run as well as power, and because of the electronics in the engine design, I will be wrapping a few turns of coax around a ferrite to minimize RF interference with the engine.

73 Doug W6PUG



TACOMA LARSEN ON BED



SPYDER



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MR2 HANDHELD



MR2 PLATE

Minutes (unapproved)

Palomar Amateur Radio Club

Board of Directors Meeting

June 8, 2011

The meeting was called to order by President Dennis Baca KD6TUJ at 7:15pm at the home of Al Donlevy W6GNI. In attendance were:

President	Dennis Baca KD6TUJ
Vice President	Ron Pollack K2RP
Treasurer	Georgia Smith KI6LAV
Secretary	Paul Williamson, KB5MU
Director #1	Don Johnson, WD6FWE
Director #2	Eric Hutchins K7ELH
Membership Chairman	Al Donlevy W6GNI
Repeater Technical Chairman	Conrad Lara, KG6JEI
Field Day Chairman	Greg Gibbs KI6RXX

Treasurer's Report

Treasurer Georgia Smith KI6LAV distributed printed copies of the Treasurer's Report. Motion by Paul Williamson KB5MU to approve the Report as published. Seconded by W6GNI. Motion passed unanimously.

Secretary's Report

KB5MU distributed printed copies of the minutes of the May Board meeting. Motion by W6GNI to approve the minutes as published. Seconded by Ron Pollack K2RP. Motion passed unanimously.

Upcoming General Meeting

K2RP reported that the July meeting will be about the recent ARISS contact held at Adobe Bluffs Middle School, presented by Jim McLaughlin, KI6ZUM. Several future programs are in the works but none are confirmed as yet.

Membership

W6GNI reported that the membership is down by two to 273. Eighty-three members who opted out of paper delivery of the Scope have not renewed.

Repeater Technical Report

KG6JEI reported that the TNC on 145.05 MHz was again reported offline just before the work party, during which it was replaced with a different TNC. He believes the new TNC is working fine. KB5MU stated that it didn't work for him. The batteries were checked and were fine. The overall site looks very green and is in good condition. The remains of the damaged 6m antenna look like they might fall down. Relays for power cutoff have been ordered. Design of that system is complete. A work party is scheduled for July 10. The 6m repeater will be re-installed, along with a temporary antenna for it. Power supplies will be moved onto the wall. The 220 Club will replace a radio to solve a problem of low power output. Art McBride KC6UQH has provided more details on the remote control circuit board he gave to KG6JEI. Some wires between buildings exist to be used in the remote control project, but it is not yet known whether they will be enough. Overall the site control project is progressing nicely.

Oceanside Resolution

KD6TUJ reported that the city of Oceanside has passed a resolution in support of amateur radio, and will present the resolution to amateurs at their meeting on June 22, and perhaps again at our Field Day site. All amateurs are encouraged to attend the Oceanside meeting.

Field Day

KD6TUJ reported that he paid a \$150 application fee to Oceanside in the attempt to secure a Field Day site, but that he still hopes to have the fee refunded. Motion by K2RP that the club reimburse KD6TUJ \$150 for the application fee. Seconded by Don Johnson WD6FWE. Motion passed unanimously.

KD6TUJ reported that site permission for the San Marcos site is in hand, in writing, signed. We still need to send them our insurance certificate. KD6TUJ reported that the portable toilet and sink have been ordered. Field Day Chairman Greg Gibbs KI6RXX reported that we may have some CW operators lined up. K2RP confirmed that we have “a couple”. K2RP will bring the computer and rig for one CW station. It’s possible that enough operators may be available to man a second CW station. KB5MU agreed that he and Michelle Thompson W5NYV would set up a station, to be used as a second CW station if operators are available. If CW operators are not available, the station will operate digital modes. Motion by K2RP to authorize up to \$100 for petty cash and gasoline expenses for Field Day, to be spent at the discretion of KI6RXX. Seconded by WD6FWE. KG6JEI proposed an amendment to increase the amount to \$150; K2RP and WD6FWE agreed. Motion passed unanimously as amended. There was some discussion about presenting a certificate to operators who make some number of contacts at the GOTA station. Eric Hutchins K7ELH stated that he has a number of blank certificates available. W6GNI stated that both he and Scope editor W5NYV added extras to the count of Scopes to be printed, so we should have plenty of Scopes to give out at Field Day. There was a discussion about mowing or dragging the field prior to Field Day. This was left to KI6RXX to decide. We are still short on shelters for Field Day.

Southwest California SKYWARN

K7ELH, as regional coordinator for Southwest California SKYWARN, stated that they were seeking funds or a new antenna to replace their broken Hustler 6BTV. The replacement must be a vertical because of roof space limitations. WD6FWE stated that he could probably repair the old antenna.

Next Board Meeting Location

It was agreed that the next Board meeting would be held at the home of K2RP at 7pm on July 13, 2011.

Adjournment

The meeting was adjourned at 8:42 pm.

Respectfully submitted,
Paul Williamson KB5MU
Secretary

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is an Education Requirement – you must teach the kids something about space and science. Parts of the curriculum in CA already match what NASA wants the school to teach in order to accomplish the educational requirements goal. The curriculum at Adobe Bluffs already was a good fit. Another requirement is that guest speakers from the local Ham Radio club give a presentation to the students. Don WD6FWE helped out a lot with this.

Equipment requirements exist. Phone patch, lots of cables and connectors, Nova, PCSat32 and Mac-Doppler software. ICOM IC-910h radio, Yaesu G-5500 Az/EI rotors, Arrow 146CP and Diamond X50a antenna. Cannot hand point, has to be computer controlled. Greater than 100W is required. Talking about next time – equipment upgrades required. Continuous series of upgrades means station had to add an amplifier to qualify for future contacts.

One month to go, planning started to concentrate on the pass timing and geographical effects. We got our first choice, an 80 degree pass. Very good pass. Questions must be submitted in advance. Questions included students’ name, grade, and order. The questions were vetted. Dress rehearsals were scheduled with students using cue cards, real radios, and microphones at school. Press was contacted and volunteers were confirmed. Microphone training turned out to be important. K-2 students especially were soft talkers. There was at least one repeat request for soft speaking students during the actual event. Position of the students in an order that makes it quick turned out to be important too. Heavens Above software was used to visualize the signal and the ISS, with the output projected on a large screen.

Every student submitted a question. It was pared down to about 15, with 5 backups. The teachers

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The Japan Amateur Radio League, Inc.

14-5, Sugano 1-chome, Toshima-ku, Tokyo, 170-0073, Japan
TEL: + 81-3-5395-3105 FAX: + 81-3-3943-8282
Internet E-Mail: hq@jarl.or.jp

JARL

23 May, 2011

Mr. Wild Bill Wiederhold
WB6BFG
2104 Poplar Road,
Oceanside, CA 92058-2332
U.S.A.

Bill WB6BFG writes, "Not long after the earthquake in Japan I sent about a pound of QSL Cards direct to the JARL. Along with the package of cards I sent a note to their league expressing our sorrow for the devastation that the earthquake caused. I also enclosed a cash donation and asked that the money be passed along to someone who needed it. Within a few weeks I received a very nice thank you letter from the JARL. A testament to International Friendship via Amateur Radio."

Dear Wild Bill,

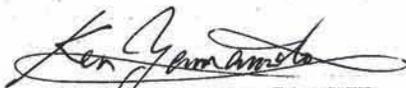
Thank you very much for your kind letter and donation.

It is so huge disaster that all broadcasters have been continuously reporting the situation of damaged areas and welfare of the suffered people for a week or two. The relief and recovery works are still on-going and will continue for years to come.

We at JARL brought up our HQ station and regional HQ stations to communicate with the stations in suffered area those could manage to be on the air. We are maintaining our effort to assist disaster relief operation by communication capabilities of radio amateurs. Japanese radio manufacturers are also helping us to offer hundreds of VHF/UHF handy transceivers.

We do appreciate your sympathy and donation for Japanese radio amateurs.

With heartfelt appreciation and respects,



Ken Yamamoto, JA1CJP

Manager, International Section

QSL Cards

A Burden or a Privilege?

by Doug Johnson W6PUG

Surprisingly, Wikipedia has a fairly extensive explanation about the history of the QSL card.

"The concept of sending a post card to verify reception of a station (and later two-way contact between them) may have been independently invented several times. The earliest reference seems to be a card sent in 1916 from 8VX in Buffalo, New York to 3TQ in Philadelphia, Pennsylvania (in those days ITU prefixes were not used). The standardized card with callsign, frequency, date, etc. may have been developed in 1919 by C.D. Hoffman, 8UX, in Akron, Ohio. In Europe, W.E.F. "Bill" Corsham, 2UV, first used a QSL when operating from Harlesden, England in 1922."

Wikipedia cites their references, and of course, expand on the subject extensively.

First off, QSL cards are typically identified with HF operations. In most cases, VHF and UHF contacts very seldom foster the exchange of QSL cards. Perhaps that is a result of the more casual communications (and of course, you cannot do a log while driving down I-15 at warp 7!).

That said, in today's world of email, websites (amen for QRZ.com!), Facebook and all of the



ABOVE, A QSL CARD BY THE AUTHOR

other tools we have for personal communications, we still have the questions about "why ham radio?" and "Why QSL cards?"

The first one is easy: the amateur radio service has as many incentives and advocates as there are operators in the world, each with their own reasons. My personal answer is twofold: the science of radio propagation is fascinating to me and far from "cookbook defined", and I get to "meet" some fantastic people who share a common field of interests – technical, in electronics. Personal, in communications, and the list can go on and on.

The second one is a little more difficult to answer. QSL cards are a time-honored tradition of the amateur radio service. So why do we see so many of the QSL comments on QRZ and other sites with notations such as "eQSL's only"; "I do not do QSL cards"; "No QSL" and all of the variations to those?



ABOVE, THE AUTHOR'S QSL CARD COLLECTION

For some, the answer is simply economics: a postcard used to be a penny (come to think of it, I am probably dating myself when I say I remember a penny postcard!) now a postcard costs twenty nine cents just to mail inside the US (unless USPS raised it again when I was not looking!). A single postcard now and then is probably not a bank breaker for anyone, even if on a fixed income, but if someone operates many hours a day (and some do – for some who do not have mobility, ham radio is their link to their outside world of common interests), the cost of the QSL cards, and postage, and even the logistics of getting them into the mail or to the Bureau is a huge obstacle.

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OK, I get that one. Makes sense to me.

For others who are contesters, it is not about the QSL cards, but about the points and contacts in the logbook. To fill out that many QSL cards might not be as enjoyable when you have made hundreds of contacts in a few hours. That reason might make sense.

For others, time spent filling out QSL cards is hours they would rather spend operating. OK, point made. After all, it is the amateur radio service, not the QSL card service.

So, for some, the time-honored tradition of QSL cards sounds a bit like a burden, doesn't it?

There are a hundred reasons and some might just be excuses, but there is another side to that coin that I want to take a minute and explore with you. Speaking only for myself, I have been a ham for something like 16 years, and a General license holder for a couple. I enjoy the challenge of propagation, and if you look at my QRZ.com biography, you will see that we are "antenna challenged" here. When I can make a contact in Australia or New Zealand – or Mississippi or New Hampshire, for that matter – the excitement is the same every time, and it is a privilege when someone takes some moments out of their lives to share with you. Your signal, or a comment about their family, or any of a host of personal information that gives them a personal identity. It was something of a surprise to me to realize that most of my very closest friends these past few years that I keep in touch with are hams, and when those contacts take the time to send me a QSL card, it is another extension of themselves. It represents moments in our lives that we created a milestone in our lives, and some of those created an identity from which friendships have grown. Something to consider?

I cannot "paper the wall" with my cards (XYL would paper me if I tried), so I keep mine in a picture album – and soon I will need another one as my collection grows. Even as logs are not the requirement of old, nor are QSL cards a requirement, I often flip through my album of cards and the memories bring smiles – and sometimes causes me to write an email (if I cannot get them on the radio) to check on them and their family. Whenever my friends visit my shack, it is not unusual for them to find and flip through my album. Yes, I have my very first QSL card from my very first contact when I got my General, and since She Who Must Be Obeyed doesn't want me to hang them on the wall, that album is very special to me, with a lot of great memories.

So there you have it: QSL cards are a personal extension of yourself in the history of the amateur radio service. It does not fit everyone as they are a personal extension of yourself, and a tiny piece of history that you have shared with someone. I guess I can understand why some folks do not utilize the QSL cards, and do not criticize any of them for any of their reasons. Their reasons are their own, and I respect that. But for those of you who have the time and inclination, I hope that you can afford a few minutes from your life to send or exchange QSL cards when you can. It might be that operator's very first QSL card. It might be their thousandth. But, every time someone opens the mailbox and sees that QSL card, I can promise you a bit of a smile and a warm memory comes to mind. It might be someone operating out of the area and receiving the memento of that exchange is not unlike a very personal souvenir. It becomes special. It does not matter if you keep them on the wall or in an album or a shoebox, you are preserving a bit of your personal history with someone else



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helped weed them down. Lots of good questions. We had trouble picking.

We're very lucky because Kerry N6IZW, an ARISS contact, lives in San Diego. He was actually at the event helping out. Also, KY6LA helped extensively with the event.

2m used only. 440 was used for ballast. We also had a vertical, but didn't use it. No signals seen on vertical, which may indicate a problem.

Projector running Nova for windows with footprint and map simulated. Another projector had the questions on it so that the audience could see what was being asked. After two years of planning, there was eight and a half minutes on the air. 1:15 after expected, signal received. A recording of the entire event was played during the program. There was some concern when we were calling, and the ISS didn't answer. But then the signal came in. From the recording, it did sound rough on the answer to the second question. Lots of static. Asked for a repeat. But ground didn't hear the repeat. Then there was another call from the ISS. Then the student repeated. Then the answer came back a lot stronger.

There was a clear female voice from the ISS. Students were speaking loud and clear. Signal became much more clear as the pass went on. Students asking questions one after another – the process of getting them on the air and moving on worked out very well. There is very little gap between the questions and answers. Very positive and encouraging and pro-science and pro-space travel.

A lot of work, indeed, needs to go into something that sounds like it was done so smoothly and easily. LOS creeps up on you and then the signal begins to fade. More and more static and weaker and weaker voice and then it fades out, in the space of one last question.

Four students were left to go when the signal was lost, and they were on the younger side, and there were some tears when the signal was lost.

The application for Sundance Elementary in Po-way has been approved! If we're lucky then the time slot is in 6-7 weeks, otherwise Thanksgiving. Heavens Above used again, new school is trickier because it's down in a valley. We have to make sure we do the rehearsals with the students. How to ask questions, how to read the cue cards. Two of everything as a backup.

We need 4-5 volunteers. We want to stream audio

and video from the event so that friends and family could watch from the event. Lots of photos are needed. We didn't get as many photos as wanted.

Things we need to do differently? Hit the record on video camera. Speak louder. Make sure each student has their cards. Consider using a band pass filter. Higher gain antenna. Better KEPS. Don't rely on Google Earth to find north. Fun-cube Dongle or spectrum analyzer. 3-4 hours to setup and test is barely enough specially if you plan to sue the 90 minutes ahead to test. Spectrum view is really useful. [The editor wholeheartedly agrees] We need more time. Setup the night before.

At Mt. Carmel High School – they're working on the initial part of building a microsatellite to get it built and launched into orbit. They are just starting to have regular meetings with the ham club at the high school.

Question from the audience was whether or not the pass was computer controlled. Yes, it was fully automatic tracking. NASA won't let you operate with manual operation. It has to be fully automatic operation. It's not a single plane, so it's hard to do with manual movement.

The school nurse sat next to Mitch. She said it was the quietest audience ever. They were very very interested. School board members attended the event.

There were two possibilities: great, or no contact. So, there was a lot of pressure. Up on the roof in the dark, frost, and wind and uncomfortable early in the morning. It was quite the effort.

A question from the audience was did the school and individual teachers follow up afterwards? It depended on the teacher, and how engaged the teachers were. New pink slip rumors that week. Some teachers followed up, some had lots of other curriculum to cover.

You never know in ham radio what you're going to bring to the project. The PA system wasn't working. Rats nest of wires and dozens of channels and a mixer no one knew how to work. Howard KY6LA touched the end of the plug and Mitch went to the to panel and looked for the overload light, and that was the cable that they needed to find and set the levels. Technical support guy for the school is there one half day, once a week at each school.

Principal was stoked when the ISS called back. He brought something to the district that hadn't

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happened since 2005. It was a big deal for the kids.

Jim has talked to many schools about ARISS. Only one showed enthusiasm about the opportunity. Other schools just don't prioritize this sort of opportunity the way many hams would like.

Worldwide school contacts, and across elementary to university level groups. As long as I can keep finding schools that are interested, I'll keep putting in applications and helping schools get on the air with ISS.

How often do the ISS people do this? 1/week or so. Some astronauts do it more often, like 2/week. A recent Italian ISS astronaut concentrated on Italian schools. Maybe 100 this year, which is the most they've ever done.

Article 39A Update

by Dennis KD6TUJ

Since approval of Article 39A in Oceanside the following has occurred:

Wire antennas will be approved through guidelines. This language will be provided in the guidelines the Planning Division will create, upon Council approval of Article 39A.

Here's the language: "No building permit shall be required for a wire antenna supported on poles made of hollow fiberglass or a similar, non-conductive lightweight material, provided that the support pole diameter does not exceed 2-1/2 inches; the antenna is wholly situated in the Amateur Radio Operator's back yard; and the highest point of the antenna does not exceed thirty (30) feet above existing grade."

At the next Telecommunications Committee, March 11, 2011 item 6 on Article 39A discussion was not needed due to the Article being approved February 23, 2011. Topic 12, Understanding Radio Frequency was tabled until the next meeting. Before the next meeting occurred, the Telecommunications Committee was dissolved.

Through and with Fred's guidance, a Proclamation was created and presented to the Amateurs of Oceanside at the June 22, 2011 City Council meeting. This gave us hams a chance to advertise Field Day to the masses of Oceanside through cable television.

The finished Proclamation was presented at Field Day. Councilman Jerry Kern and Aide Ben Sullivan were given plaques in gratitude of their efforts for Amateur Radio.

10 - X International Membership

Thanks to an initiative by Preston W6ASP, PARC has been a member of 10-X International for several years now. We recently re-upped our membership, and here's an image of our membership card included below.

Ten-Ten International Net, or 10-10 for short, is an organization of amateur radio operators dedicated to maintaining high levels of amateur radio communications on the 10-meter amateur band (28.0-29.7 MHz). Established in 1962, 10-10 has grown continuously since that day, with some ups and downs according to the numbers of sunspots and the openness of the band. As you read this, the number of 10-10 numbers issued to members is over 75,000. 10-10 would welcome your membership in the organization if you have an amateur radio license with 10-meter privileges.

10-10 is a volunteer organization with no paid officers. Although 10-10 does contract for certain services to ensure that each member receives his or her quarterly issue of 10-10 News, the 30+ page journal of 10-10 activities, the real work of providing services for members falls on the shoulders of dedicated volunteers.



HAM RADIO

Jose XE2SJB
Jerry N5MCJ
Joe N6SIX

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Directions: On 163, take **Clairemont Mesa Blvd.** off ramp to East. Stay in right-hand lane. Turn right at stoplight. As you are turning right you can see our beams in this shopping center. Travel 100 yds. On Kearny Villa Rd. and U-turn back to shopping area and HRO sign. Be sure to see our equipment in action on **real** antennas!

20m/80m Field Day Results

Band	QSOs	Points
3.5 Mhz	200	200
14 Mhz	568	568
Total	768	768

Score 1536

I am compelled to say the FD event was a real pleasure.

I know there were many club members who helped in the preparations. For instance, at least the 20M SSB beam worked like a real charm. I never used the rig's antenna tuner, and never saw an SWR above 1.2. That was NOT the case in previous years, so the antenna party certainly helped my station.

But in my opinion, two people in particular made a real contribution to the event, and I recommend the Board make an effort to recognize them publicly.

Rick operated a real quality "Field Day kitchen". The vittles were nicely thought out, his schedule was ample to suit the vagaries of the operation, and the Tri Tip dinner was WORLD CLASS.

And last, but certainly not least, we need to publicly recognize Gregory for leading the gang in Field Day planning and preparations.

Yes, he had ample mentoring. But PARC took a gamble on letting a new ham get "volunteered" for what is arguably one of the toughest and least thanked for Ham radio activity. No one ever likes the FD coordinator efforts, and no one says thanks.

Gregory learned a lot doing the 2011 FD plan. We need to make sure he is recognized for the work, in the hopes that he will continue to work for other volunteer tasks. And hopefully he will lead the 2012 FD plan.

73 de NN3V, 20m/80m station band captain

Repeater Site Work Party Report

by Dennis KD6TUJ

The work party at the repeater site on July 10th was attended by the following, KG6JEI, NN3V, KI6RXX, WD6FWE, KJ6KDM, KG6QXO, W6GNI, JULIE, KI6MMT, KD6TUJ with AF6HF and K1CT representing the 220 club. We created an organized cluster and started on some projects.

Charlie started on building a temporary 6m antenna with help. Al, Julie and Frank helped to clean up the site by trimming scrub and cutting downed branches. Greg helped by getting supplies along with Chris and Mike who were up for the first time.

Projects completed include replacing the 6m repeater, installing a separate 48vdc to 12vdc converter, hanging the temporary antenna on the west side of the tower between the crossarms, running a coax line from the antenna to the generator building.

The pre-planning for the antenna worked out well. The hanger rod was measured with close tolerance to fit the PVC antenna into the holder on the lower crossarm stabilizer that was left for this specific purpose.

The 6m machine was tested onsite and appeared to function OK. Power lead lines to the 146.730 and 147.130 machines were lengthened to give adequate room to mount the converter and not strain the leads.

Guy wire lines were checked by Don and were very close in readings that only two were adjusted. Batteries were checked and water levels are between the lines.

Mert and Bill from the 220 club changed out a radio in their repeater bringing the output back to a respectable 13 watts out to the antenna. Field checks are being done on the 6m repeater. Reports can be sent to the board.

6m specs = 52.68 MHz -.5MHz 107.2 pl

Tower Equipment Request

by Don WD6FWE

After climbing the tower at the work party on 10 July, I have a few comments about the climbing gear.

1. Provide climbing hooks for the actual climbing part. The locking rings are good for when you are at your work height but take too much time while

climbing and coming down.

2. Get shoulder straps for a complete body harness.

3. A helmet for the climber should be available. Not a problem where I was today but higher up it could be a safety issue if someone backs their head into antenna parts.

There were other minor items like an actual tool-bag but I cannot remember what they are now.

Pan Tilt Zoom Camera for Club

by John WB6IQS

I got a working PTZ (Pan/Tilt/Zoom) color day / night TV camera from surplus show stock at work. It has a low light level capability and will "see in the dark" to a limited extent. It can see from straight down to slightly higher than the horizon and spin 360 degrees. It just cannot travel more than 360 degrees.

It is like a light fixture with a globe that hangs down from an outdoor lamp housing. The housing has a fan to circulate the air and a temperature controlled heater element to keep ice and snow from fogging the lens.

The joystick remote control uses a 2 wire RS-485 differential serial data drive to talk to the camera and program its' movements. The camera can be programmed to sweep a given area continuously or via the same remote control it will accept manual control. Down the road we might be able to figure out the data format and then using a single board computer and some DTMF tones do a remote control via a RF link.

I do not have a lot of data about the RS-485 command structure but there seems to be a lot on the Internet if you Google "RS-485 CCTV Camera Control". The controller is a common Pelco (?) industry standard controller that can be used for up to 32 multiple cameras on a motion control data bus. The RS-485 can drive up to 1200' of data cable.

I have 100' of dual coaxial RG-6/U satellite remote control cable that includes heavy power (Red / White) and 6 or so smaller control wires. With the right adapters from F to BNC it would be good for camera remote control. This kind of cable was commonly used with the old 10' center fed dishes with dual feed horns.

We could put the camera on the antenna tower and then run the coaxial cable down the tower and into the CCTV transmitter building.

Think about this for the later part of the summer or fall work parties.

VHF RF Power Meter for Club

by John WB6IQS

Sorry to report that the Heathkit VHF RF power meter movement is open.

I thought it might be a bad switch connection but when I checked the meter movement with a high impedance DVM it was infinite ohms.

If you have another movement we might be able to swap scales, but Heathkit used so many different meters with different F.S. currents it will be hard to find one that will substitute. I have had limited success with opening up the movements and looking for the broken wire but then no guarantee of how good the meter will work afterwards. More than likely it was an overcurrent or surface corrosion that finally ate all the way into the copper wire.

I have packaged up the working 220 and 2 meter VHF HTs, with a spare battery, antenna and overnight chargers (all the small wall wart chargers were OK). I will bring them to the next club meeting. I also have the brick amplifiers with manuals, power connectors and data sheets all packaged up.

VHF/UHF HTs for Club

by John WB6IQS

Some comments about the VHF/UHF HTs and other miscellaneous stuff you gave me at the last meeting.

I will identify them by model number and last 4 digits of the serial numbers.

2 meter, FT-209RH, Yaesu, S/N 0186
TX OK but power output is a little lower than expected (3.2 Watts).
RX and TX OK, on frequency and correct deviation, etc.

2 meter, FT-209RH, Yaesu, S/N 0070
TX OK but power output is a little lower than expected (3.2 Watts).
RX and TX OK, on frequency and correct deviation,

etc.

220 MHz, FT-109RH, Yaesu, S/N 0729
TX OK but power output is a little lower than expected (3.5 Watts).
RX and TX OK, on frequency and correct deviation, etc.

FT-709R, UHF, S/N 0240
RX OK, No TX

FT-727R, Dual Band, 2 Mtr/450 MHz, S/N 0584
LCD display no good. No freq. display
Rx noise on squelch, but unable to test RX frequency
No TX power output, VHF or UHF.

Kenwood, TMV7 mobile, 12 VDC external power required.
Weak RX on 2 Meters, 10 uV or so to break squelch
RX OK on UHF.
PL decode and encode is OK
VHF power output = 20 Watts
UHF power output = 10 Watts
Blue display is hard to read with poor contrast and poorly defined characters. Cooling fan is annoying.

Block Amplifiers, FM Mode only:
145 MHz = 25 Watts output for 3 Watts input
220 MHz = 15 Watts output for 3 Watts input
450 MHz = 20 Watts output for 3.5 Watts input

Was not able to check if RF receiver pre-amplifiers work OK, all LEDs look right.

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Featured Program:

At 7:30pm on the 3rd of August 2011, Palomar Amateur Radio Club will have a program about the March 2011 YLDP expedition to Curaçao and why Lithium Ion batteries wear out so quick.

Arrive at 7:00pm to socialize. We look forward to seeing you at the Carlsbad Safety Center, 2560 Orion Way, Carlsbad, CA.