



# RF



## ORANGE COUNTY AMATEUR RADIO CLUB, INC.

VOL. LV NO. 8

P.O. BOX 3454, TUSTIN, CA 92781-3454

August 2014

### The Prez Sez.....

by Nicholas AF6CF



So how would you like to talk to the moon from your sidewalk? Just come to our meeting to find out. It may not be as absurd as it sounds.

Many of us are still on "Vacation Mode" but there will be plenty opportunities for radio fun, like antennas in the park, Ham conventions and other activities in the planning by our Board of Directors.

For a second year in a row, thanks to the generosity of its members, the Club did not spend too much money on the Field Day activity. So a big **Thank You** to all our members and supporters. As every month, I look forward to an eyeball contact with you all at the next General Meeting.

73 DE AF6CF

We are now in August, and this means that there is less than a year to the next ARRL Field Day. Again we hope that next year will be at least as good as this year was so we can consolidate the trend we started.

Now is the time to start thinking of items to bring to sell at our Club Auction in October. We are planning a couple of excellent speakers for our September (Clem WØMEC) and November meetings.

#### Notice:

Due to the ARRL Southwest Division Convention, the OCARC September board meeting will be moved from September 13th to Saturday **September 6<sup>th</sup>** at 8AM at Jaegerhaus.

### Our Next Meeting

The next OCARC [General Meeting](#) will be held on Friday, August 15th 2014 at 7 PM. The program will be presented by Doug Millar, K6JEY on "**Sidewalk EME (Earth Moon Earth)**".

Doug has an impressive presentation on how he bounces a 1296 MHz signal off the moon and back from his front yard. This is not to be missed.

The next general meeting will be on:

**Friday, August 15<sup>th</sup>, 2014  
@ 7:00 PM**

As usual, we will be meeting in the east Red Cross Building, Room 208.  
See you there!

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Feedback & Corrections:  
[RF\\_feedback@w6ze.org](mailto:RF_feedback@w6ze.org)

Submit Articles:  
[EDITORS@W6ZE.org](mailto:EDITORS@W6ZE.org)

### Monthly Events:

**General Meeting:**

Third Friday of the month  
at 7:00 PM  
American Red Cross  
600 Parkcenter Drive  
(Near Tustin Ave. & 4<sup>th</sup> St.)  
Santa Ana, CA

**Club Breakfast:**

Second Saturday of every  
month at 8:00 AM (**Except Sept**)  
Jagerhaus Restaurant  
2525 E. Ball Road  
(Ball exit off 57-Freeway)  
Anaheim, CA

### Club Nets (Listen for W6ZE):

28.375 ± MHz SSB  
Wed- 7:30 PM - 8:30 PM  
Bob AF6C, Net Control

146.55 MHz Simplex FM  
Wed- 8:30 PM - 9:30 PM  
Bob, WB6IXN, Net Control

7.086 ± MHz CW **OCWN**  
Sun- 9:00 AM – 10 AM  
Ann KE6OIO, Net Control

### **VISIT OUR WEB SITE**

<http://www.w6ze.org>

for up-to-the-minute club information, the latest membership rosters, special activities, back issues of RF, links to ham-related sites, vendors and manufacturers, pictures of club events and much much more.

**Club Dues:**

Regular Members .....\$20  
Family Members\* ...\$10  
Teenage Members ..\$10  
Club Badge\*\* .....\$3

Dues run from Jan thru Dec and are prorated for new members.

\*Additional members in the family of a regular member pay the family rate up to \$30 per family.

\*\*There is a \$1.50 charge if you'd like to have your badge mailed to you.

# MARK YOUR CALENDAR NOW!!

## 2014 ARRL Southwestern Division Convention Dates: September 12 - 14, 2014



The ARRL SW Division Convention sponsored by SANDARC will be held at the Sheraton Four Points hotel located on Aero Drive near the Montgomery Field airport which is the same location of the 2010 convention.


Our convention will feature tech forums, vendor exhibits, on site radio station, grand banquet, flea market and many more activities. Check this site often to get the latest news regarding our ongoing convention events.

Vendors please check with Paul Rios at [kc6qls@cox.net](mailto:kc6qls@cox.net).

Check with Ann Rios, KC6TBG at [kc6tbg@cox.net](mailto:kc6tbg@cox.net) if wish to conduct a Tech Forum.

See [www.sandarc.net/convention2014.php](http://www.sandarc.net/convention2014.php) for more details

**2014 ARRL  
Southwestern Division Convention  
Dates: September 12 - 14, 2014  
Sample of Presentations  
--- Saturday Sept 13 ---**

Times	Palm A	Palm B	Palm C	Palm D	Theater
9AM-9:50AM	Greg Jurrens, K5GJ VP of Business Development <i>Leveraging Advanced Software Defined Radio for Better DX</i>		Jim McLaughlin, KI6ZUM <i>How open source hardware/software in Amateur Radio is helping make D-Star more successful</i>	Matt Lunati, N7OEI <i>Ham Radio and Firearms, Arizona style!!!</i>	Gordon S., AE6QW <i>Ultra High Performance HF Receivers: \$1K to \$18K Really?</i>
10AM-10:50AM	Joe Moell, K0OV <i>What's New in Hidden Transmitter Hunting?</i>	Kate Hutton, K6HTN <i>NTS is Alive!!</i>	Carl Gardenias, WU6D <i>Amateur Radio First Aid Kit for Emergency Deployment</i>	Harry Hodges, W6YOO <i>DX 101</i>	Pat Bunsold, WA6MHZ <i>Radio Restoration: Collecting and Restoring Ham Radios of the Past</i>
11AM-11:50AM	April Moell, WA6OPS <i>Realistic Drills Lead to Optimum Outcomes</i>	J. Scott Bovitz, N6MI <i>Creating your own perfect communications vehicle: Lessons learned from the N6MI emergency/contest van</i>	Andre Hansen, K6AH <i>Broadband Hamnet a self-configuring high-speed RF data network.</i>	Ken Konechy W6HHC <i>Latest Advances in Digital ATV</i>	Kurt Barnhart, N6MD <i>Emergency Communications Roundtable / San Diego North County and Mountain Backcountry</i>
12PM-12:50PM	XE2BC TBA	Joe Garza, AB6RM SD Maritime Museum			Kurt Barnhart, N6MD <i>Round Table Continued</i>
1PM-1:50PM	Joe Fairclough, WB2JKJ <i>EDUCOM-Education Thru Communication</i>	Duane Mariotti, WB9RER <i>Amateur Radio First Responder Safety - Your Life Depends on You</i>	Doug Millar, K6JEY <i>Sidewalk EME</i>	Chris Storey, KA6WNK <i>Reporting Emergencies: How Observant Citizens Can Help Emergency Responders</i>	Grant Hays, WB6OTS <i>National Traffic System/NTS Digital System</i>
2PM-2:50PM	Alex Tardy <i>Warning Coordination Meteorologist, Manager</i> <i>Current drought and predicted El Nino</i>	Duane Mariotti, WB9RER <i>Emergency Communications: Time for Change or Obsolescence-</i>	Doug Millar, K6JEY <i>Modern Test Equipment for the Radio Ham</i>	Chris Storey, KA6WNK <i>Hydration for the Emergency Responder</i>	Marty Woll, N6VI <i>When the Grid Goes Down: Managing Emergency Power Sources, Loads and Storage</i>
3PM-3:50PM	John Kountz, W01S/6 <i>440 the Hard Way</i>	Dennis Vernacchia, N6KI <i>Calling Home during the Vietnam War: How Amateur Radio saved a MARS Station</i>	Bob Turner, W6RHK <i>ARES, What it is, and why do you want to talk to them</i>	Harry Hodges, W6YOO <i>Islands On The Air (IOTA)</i>	Ward Silver, N0AX TBA
4PM-4:50PM	 <b>ARRL Forum</b>				
5PM-5:50PM					
6PM-6:50PM					
7PM-9PM	<b>Keynote Speaker</b> Ward Silver, NOAX Speaker in the Banquet Room				

## Do It Yourself by Bill Prats K6ACJ

### DIY Glue Stick Nut Driver and Speed Nut

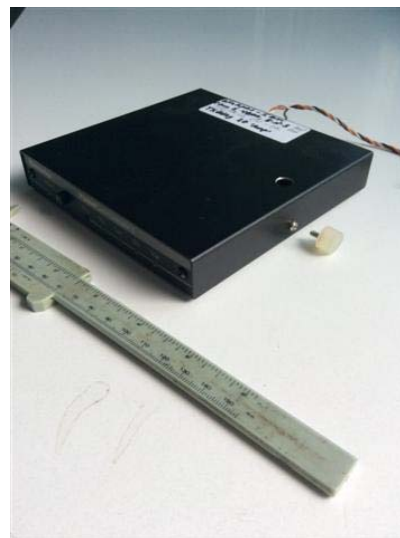
Often times when repairing or building small projects I get stuck trying to mount parts deep into the corner of a box or in other cases there is a piece of equipment that has a condition that makes it necessary to frequently remove the cover and other projects might need something akin to a wing nut, a Speed Screw.

A common glue stick will be used to create an example nut driver or speed nut, the option for each will be obvious at the end of the article.

1. Thumb screw on equipment cabinet, we will show a TNC for this example
2. Portable antenna Mount rapid takedown Speed Screw
3. Nut extender, similar to the old Heath Kit tool for assembling small hardware



Speed screw on a TNC for rapid cabinet removal



DIY Speed screw detail



DIY Speed nuts enhance convenience to rapidly setup a large mobile antenna mount

#### Tools:

A small drill press with 3/8" chuck or large enough to hold the glue stick

A small vise or clamp

A very small propane torch like that used in baking or large soldering iron to heat parts, a cigarette lighter works too

**Parts:**

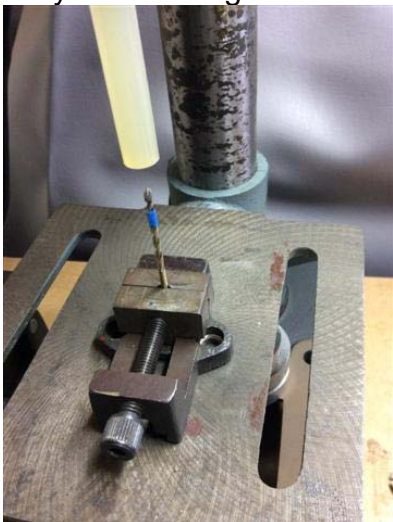
Common Glue stick:

4-40 hardware will be used in this example or any hardware with a diameter smaller than a glue stick.

**Construction:**

Place the glue stick in the drill press chuck leaving a minimum of length protruding. Snug lightly by hand

Place a 1/8" diameter drill bit in the mini vise directly below the glue stick center.



Place a bit of tape as a marker about 1/4" down the drill bit

Carefully drill into the center of the glue stick as far as the tape marker.

Place the threaded hardware in a mini vise and directly below and center to the glue stick

This step takes some practice, heat the threaded hardware for 5 to 10 seconds, it has to be hot enough to melt into the glue stick.



Remove the heat and lower the drill press chuck until the glue stick has melted down around and below the threaded hardware and hold that position steady for a minute to let the glue set then carefully release the hardware from the mini vise.



Allow to cool and harden without disturbing the part.

After 5 minutes remove the glue stick from the chuck, there is your glue stick extended nut driver and if you cut the



glue stick to the size of a radio knob  
It becomes a speed nut or screw, depending on the hardware used.  
Until next time ..... Bill K6ACJ

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**Orange County  
Fire Watch  
Volunteers needed**

As California enters its third year of a record breaking drought, communities within the wildland urban interface of Orange County are up against a growing threat from wildfires. . To help combat this threat Volunteers with the Orange County Fire Watch Program deploy during Red Flag Warning and high fire danger days to strategic locations surrounding Orange County's Parks and wilderness areas.

Volunteers serve as visual deterrents against arsonists, provide early reporting of fires, and help educate the public on fire prevention. Many of these Volunteers utilize their HAM Radios skills to maintain situation awareness during deployments, and OC Fire Watch is looking for more HAM Operators who are interested in helping protect Orange County against the threat of wildfires.

### Fire Watch Training Matrix

1. Volunteer Orientation / Public Interaction Workshop
2. Fire Watch Workshop
3. CPR/First Aid Workshop

For more information on Orange County Fire Watch Program - Click  
[http://ocparks.com/howdoi/volunteer/orange\\_county\\_fire\\_watch](http://ocparks.com/howdoi/volunteer/orange_county_fire_watch)

**Thank you. 73!**

**Kevin McArthur KK6JSG**

*Program Coordinator , OC FireWatch*

**Heathkit of the Month - Extra #1:**  
*by Bob Eckweiler, AF6C*



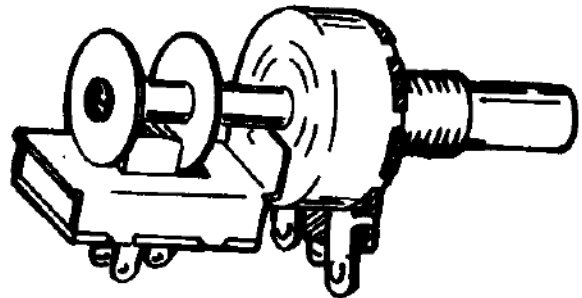
This introduces a new a new feature of the Heathkit of the month. Occasionally I may find a repair technique or such to help get a kit back into working order when parts are not easily obtainable. These won't appear often but will be added when I find they might be useful to those working on the kits.

**MAINTENANCE**  
**Slide Switch Repair**  
**Featuring the HM-102**  
**HF Power Meter**

**Introduction:**

After servicing a friend's Heathkit HM-102 that he picked up at a local swap meet, and that initially looked like a basket case, I was surprised how well it worked. It calibrated easily and held the calibration. I thought back to the HM-102 that I had acquired recently and was currently using. It was constructed well and appeared to be in a lot better physical condition, but was not nearly as solid in its performance. It was time I did something about that.

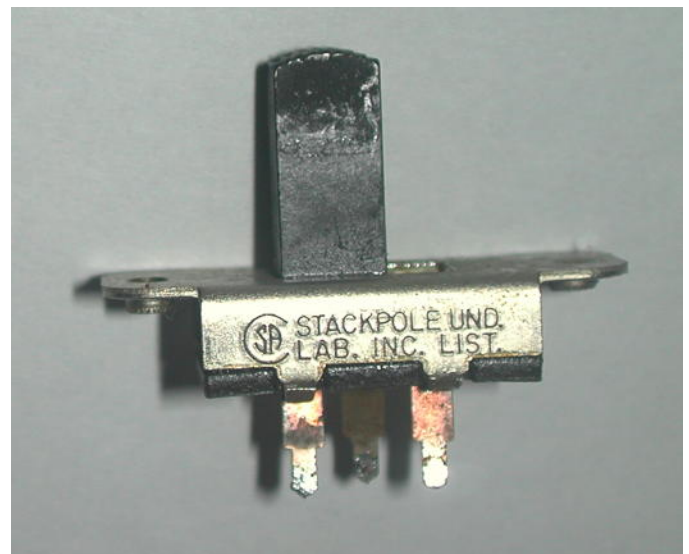
My HM-102 was disassembled and examined carefully. The soldering was not in question though I reheated a few joints, more to make me feel I was doing something than thinking I was fixing a problem. After cleaning the pots and switches with a small and careful application of De-Ox-ID cleaner I check the pots, rotary switch and slide switches with an ohmmeter. The pots seemed fine as did the rotary switch. But the first slide switch, which was located on the SWR sensitivity pot, and activated by pulling the knob out, showed erratic resistance. Sometimes it was near zero, sometimes it was high and sometimes it was beyond the scale my digital ohmmeter was set on. The switch had a problem.



**Figure 1: Pot with Integral Slide Switch**

Finding a replacement for this pot - switch assembly (Fig. 1) would not be easy. The alternative was to take it apart and see what ailed it. The switch assembly does not come separate from the pot, but the fiber switch back plate can be removed by lifting the four metal tabs that hold it in place. This is not easy to do.

With some trepidation I was able to bend the tabs up carefully and totally disassemble the switch. Once the tabs were lifted it was obvious there was at least one spring underneath so extra care was taken not to have pieces shoot everywhere. The switch was then cleaned, lubricated and reassembled. The contact surfaces on this switch were badly tarnished and almost black, but they cleaned up to shiny silver with a cotton swab and some 91% alcohol. When I was



**Figure 2: Slide Switch from Circuit Board**



all done I cussed myself because I should have documented the process with some pictures.

After reassembly, I tested the HM-102 performance and the SWR section worked as solid as I could ever wish for. Unfortunately, though, the Power calibration still remained erratic. That circuit used a second slide switch. This one was a different style designed for circuit board mounting and included a vertically extended slider; however the guts of the switch appeared identical (Figure 2).

Here are step by step instructions for disassembling, cleaning and reassembling the switch:

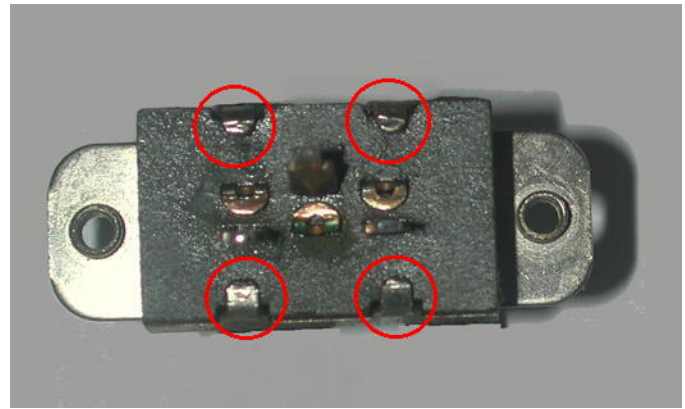
#### Items You Will Need:

- Needle nose pliers
- Medium weight wire cutters, Preferably an old pair
- A 7/8" or 19 mm socket (or something similar) to hold the switch during assembly.
- Cotton Swabs
- Palmolive, Dawn or other dish detergent.
- 91% isopropyl alcohol or other solvent.
- White lithium grease (GC 19-2302)
- De-Ox-Id contact cleaner and lubricant.

#### Disassembly:

It is assumed you have removed the slide switch to be repaired. However if the switch is easily accessible when mounted you may leave it mounted. When the initial switch was serviced the pot assembly remained mounted. This can make the switch more stable while disassembling. Be sure to note the orientation of the switch terminals prior to disassembly.

If you examine the slide switch you will see four tabs that are bent over holding the fiber plate with the terminals to the metal switch bracket (See Figure 3). These need to be carefully bent up. Caution, excessive bending will cause the tabs to fatigue and break. Without



**Figure 3: Slide Switch Showing the Tabs**

damaging the metal frame or fiber plate you will need to get something under the tab and lift it slightly. I've never had luck using needle nose pliers, but an old pair of wire cutters can be used to get under the tab. You don't want to mar the metal frame so it is wise to protect the other cutter blade; I used a thin piece of brass shim stock. Again just bend the tab up far enough so you can use needle nose pliers to complete the bending. Keep pressure on the fiber plate so it doesn't come off and allow the spring and contact to fly off.

Now gently remove the fiber plate, contact and spring. Also remove the plastic slider. When you are done you should have five parts as listed in figure 4.

#### Cleaning:

Clean the disc contact (figure 5) with the alcohol. It should clean easily to a silver shine - this



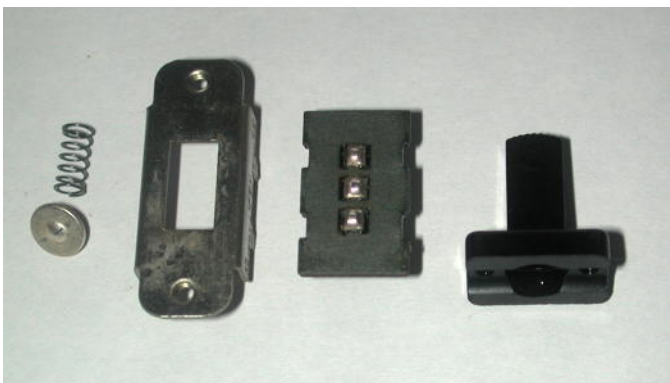
**Figure 4: Disassembled Slide Switch parts. Left to right: Fiber plate with terminals and fixed contacts, disc contact, spring, plastic slider and metal switch frame.**



**Figure 5: The silver disc contact prior to cleaning. The earlier switch contact was much dirtier to the point of being covered with black tarnish. However this had enough dirt to cause switch failure.**

part is silver plated so don't use anything abrasive. If your disc shows signs of burning, polish it gently; the HM-102 puts minimal current through the slide switches so this is not a problem. That may not be true for switches in other Heathkits. Similarly, clean the contacts on the fiber board. These too should clean up to a silvery shine.

The spring in both the switches was clean; I left them alone. However, I did clean all the lubricant off the metal switch frame, again with the alcohol. The plastic slider was washed with de-



**Figure 6: Cleaned Parts: Ready for lubrication and assembly.**

tergent and water at the sink, and everything was set aside to dry (Figure 6)

**Lubrication and Reassembly:**

Use something that will hold the metal frame above the table; I used a 19 mm socket wrench. Place the metal frame atop the socket with the tabs pointed up. Apply a small film of lithium grease to the frame's channel where the plastic slide moves back and forth using a cotton swab. Place the plastic slide in the frame (it can go either way) and slide it back and forth a few times to disperse the grease; then gently wipe away any excess grease. (figure 7).

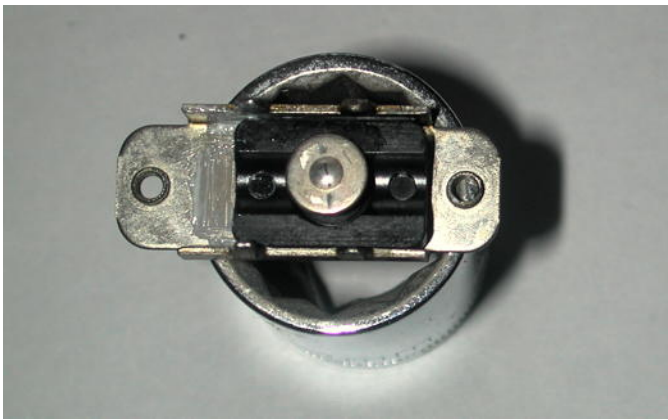


**Figure 7: Frame with slide inserted**

Insert the spring into the well in the plastic slider (figure 8) and gently place the contact



**Figure 8: Slide with spring inserted**



**Figure 9: Slide with spring and disc contact inserted**

disk onto the end of the spring (figure 9). Try not to touch the contact surface, and clean with some alcohol and a cotton swap if you do.

Now, place a tiny drop of De-Ox-Id or other quality contact lubricant\* on the contact disk. Spread the contact cleaner evenly on the surface; I used a thin strip of plain white paper. Rotate the disc contact so that the previous wear, if noticeable, is off from the axis of slide motion. This can be seen in figure 9 with the previous wear marks now almost vertical.

Finally, the fiber plate is installed. Depending on the switch, make sure the solder contacts are oriented as they were prior to the switch being taken apart. Bend each of the four tabs back down to the 45° position. This should hold the fiber plate in place, though it might be loose. Continue bending each of the tabs down further to about 30° to horizontal. This should be close to where the tabs were prior to disassembly. Do not be tempted to bent the tabs to horizontal.

### Checking the Finished Switch

The first thing you want to do is to be sure the switch slides freely. It should unless you bent the metal switch frame or pressed the tabs down too far.

Now it is time to check the switch electrically, Use leads with an alligator clip on each end so you don't get false readings from poor probe contact. First use an ohmmeter on a high resis-

tance scale and check between each terminal and the frame. They should all read infinity. Then check from the center terminal to each of the end contacts, one at a time, with the ohmmeter on a low-resistance scale. In one position the resistance should be close to zero and in the other infinity. The resistances should hold steady. Figure 10 shows the repaired switch re-assembled and ready to be reinstalled.

### Summary:

As Heathkits get older, finding replacement parts is going to become harder and repairing the kits are going to take more ingenuity.

While this repair is not “rocket science”, perhaps it will encourage others to attempt the repair instead of living with an annoying problem. My HM-102 has worked flawlessly since the switches were disassembled, cleaned and lubricated. Regular contact cleaner, such as De-Ox-Id didn't, by itself, return the switch to the solid operational condition one would want.

From time to time I may add to the Extra series of Heathkit articles as I find solutions to problems encountered restoring or fixing a kit or particular part.

73, from AF6C



*This article is Copyright 2014 R. Eckweiler and The OCARC Inc.*

*Remember, if you are getting rid of any old Heathkit Manuals or Catalogs, please pass them along to me for my research.*

*Thanks - AF6C*

## TechTalk114

## Stan Lebar and the Apollo 11 TV camera

by Trevor Brown G8CJS

[This article was reprinted from the August 2014 issue of CQ-DATV14, a free online eMagazine for Amateur TeleVision hams].

It is now 45 Years since the 1969 July Apollo 11 launch put Americans Neil Armstrong and Buzz Aldrin, on the moon. They took with them a very special TV camera developed by Stan Lebar and his team at Westinghouse.

The camera Stan's team developed and built ran at 10 fps [Frames Per Sec] using 320 lines. Rather a non-standard TV signal, but at the time nobody knew if live pictures from the moon would be possible, so the transmission path was via the telemetry channel and was shared with voice and biomedical data. The bandwidth available for a television signal was only 500 KHz, Stan's team had to engineer from scratch the camera which had also to withstand Lunar temperatures of -184 C to 101 C so this was rather a special camera. The tube was supplied by military and no pictures of the tube were permitted. The Apollo 11 mission was tracked at three locations:



This 2009 photo, with Stan Lebar standing next to a photo of the early Apollo 11 cameras (on right), was used during NASA TV being awarded Prime-time Emmy Aug. 22, 2009.

Goldstone, Honeysuckle Creek, and Parkes, the telemetry was recorded onto 1" tape by M22 recorders. NASA hired RCA to build a standards converter to process the images into a 525 line TV signal. The tracking stations converted the signals and transmitted them by microwave links, Intelsat communications satellites, and AT&T analog land lines to Mission Control in Houston. By the time the images appeared on television, they were substantially degraded. Stan was delighted to see his camera working, but was always disappointed with the quality; he knew it was capable of much better results. The problem was not the camera but the standards converter and transmission path. "No one was unhappy," he said. "We were all in seventh heaven". America had pulled off the impossible. The Nation had landed a man on the moon and showed the world, via live television, that it could be done.

The live pictures were viewed at tracking centres on monitors that worked on the 10 fps 320 line standard and reports confirm that these pictures were considerably better quality than what the rest of the world saw [on their home TV sets].

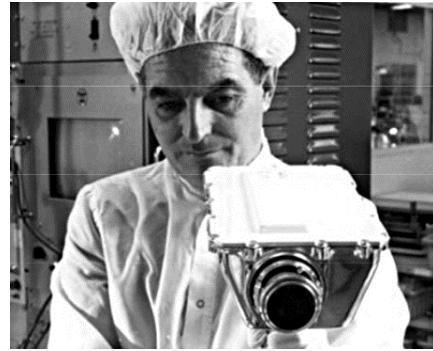
The original high quality was preserved via the M22 telemetry recordings. The engineers boxed the one-inch telemetry tapes wound onto 14-inch canister reels which served no other purpose than to provide backup if the live relay failed and shipped them to the Goddard Space Flight Center. From there, the tapes were sent to the Washington National Records Center in Suitland, Md.

In 1997 a phone call from a British author, to Sarkissian, who had been part of the Parkes team, raised the issue of the location of the M22 tapes. Only one had ever surfaced in Australia which was a copy of one of the tapes sent to Goddard. Everyone assumed that NASA had the originals stored away safely. This did however start a search in the states by Stan Lebar, Bill Wood and Richard Nafzger, for the original M22 recordings with a view to unlocking the true quality of the Apollo 11 camera and showing the world some improved quality recordings of this historic mission.

This became a long and exhausting search and in what one of the American papers headlined as "**One Giant Blunder for Mankind**" it would seem the Apollo 11 telemetry recordings no longer exist and are presumed wiped.

So it may seem the rest of us will never get to see the true quality pictures produced by the Apollo 11 mission. Stan Lebar's camera did prove that pictures were possible from the moon and although it was sent as a backup on the Apollo 12 and 13 missions it was never used again, Stan had proved what could be done and a higher definition colour camera was used on the following missions so presumably a greater bandwidth had been allocated.

In addition to Apollo 11's lunar camera, Lebar also managed the Apollo color TV, Skylab series and Apollo-Soyuz Test Project camera programs. On behalf of his Westinghouse team, Stan Lebar accepted the Emmy Award in 1970



**Stan Lebar tests and adjusts actual camera before launch**

Academy of Television Arts & Sciences, for "Outstanding Achievement in Coverage of a Special Event." NASA TV was awarded a "Primetime" Emmy Award by the Academy of Television Arts & Sciences in 2009. He retired in 1986 after a 33 year career with Westinghouse.

#### Interesting URLs:

- <https://www.youtube.com/watch?v=OVcQ4CvGell&feature>
- [http://www.nasa.gov/pdf/398311main\\_Apollo\\_11\\_Report.pdf](http://www.nasa.gov/pdf/398311main_Apollo_11_Report.pdf)
- <http://cq-datv.mobi>

## Ken W6HHC will present talk on Digital-ATV at ARRL/TAPR Digital Communications Conference

**September 06, 2014 - - Austin, TX**

Each year, the TAPR organization for digital communications holds a Digital Communications Conference (DCC) to highlight advances that hams have made to improve digital communications. This year, DCC will be held on Friday-Sunday September 5-7 in Austin, TX. The powerpoint presentation by W6HHC will be uploaded to the OCARC web site after the DCC is over




2014 ARRL/TAPR DCC

**SDR-based  
DATV-Express exciter  
for Digital-ATV**


by

Ken Konechy W6HHC  
W6HHC@ARRL.net



**DATV-Express**

Hardkernel ODROID U3 "micro-PC"



ODROID U3 is about the same size as Raspberry Pi

25

**OCARC "Thank You" to Powerwerx**

**New QSLs for Chip K7JA and Janet KL7MF**

Murphy hit us very hard with a generator cable failure at Field Day that caused massive voltage spikes to be sent thru our cabling system.

If anyone has ordered new QSL cards recently, and would like to show them off in the RF, please send your proof copies to [editor@w6ze.org](mailto:editor@w6ze.org). This could be a new feature in RF.

We lost a power strip, plus a Powerwerx power supply that Chip K6JA brought to run some of his satellite radios.

Chip and Janet Margelli have just received a new batch of QSLs from the printer. Nice photos by Chip!

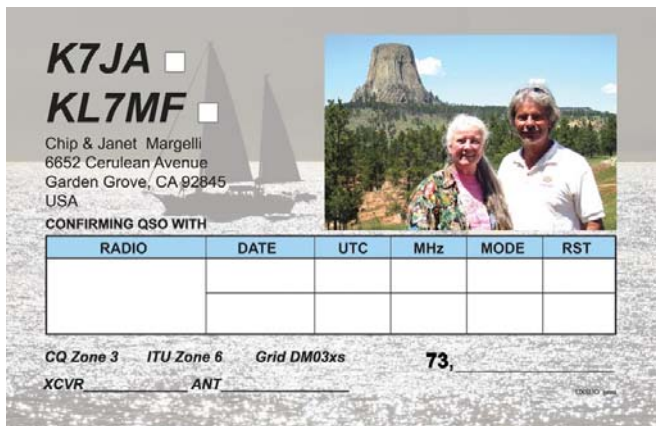
Unfortunately, the power supply was pushed far beyond its design limits, and 2 large reports were heard from capacitors inside the case.

Chip shipped the power supply to Powerwerx to replace the capacitors, and Powerwerx did the repair for FREE ! They have gone above and beyond in supporting their product, especially considering the voltages that it got hit with.



Please consider Powerwerx for your next purchase of Power Supplies, Anderson Power Pole connectors and crimpers, and their complete line of Wouxun UHF/VHF radios. They just announced their new Wouxun KG-UV8D dual band radio.

Powerwerx does not have a retail location, but their products can be purchased at [www.powerwerx.com](http://www.powerwerx.com) or at a local ham radio store like Ham Radio Outlet.



Thank you again, Powerwerx from K7JA and the OCARC Board.



**OCARC General Meeting Minutes  
for  
2014-July-18**

The OCARC General Meeting was held at the Red Cross Complex on July 18<sup>th</sup> 2014. The meeting was called to order at 7:08 pm. There were 28 people in attendance which included 2 visitors.

After the Pledge of Allegiance, Nicholas – AF6CF took a moment to express his thoughts on our Field Day. He said he felt it went well and that despite having some unplanned issues – such as food captain unable to attend and power line malfunctions we still continued to operate and came through with respectable scores.

The main speaker for the evening was Arnie – N6HC. Arnie was there to share his adventures as part of the team for the FT5ZM – DXpedition to New Amsterdam Island. This highly successful DXpedition was awarded “DXpedition of the Year” Award from the Southwest Ohio DX Association.



Fig01 – Club member Arnie N6HC give slideshow of his recent DXpedition

Arnie had great praise for the 14 members of the DXpedition, the 6 members of the ship’s crew, and the 20 French staff stationed on the island. This group together made it a team of 40 that allowed them to have over 170,000 QSO’s. In addition they had many fine people at home and in Australia lending logistics and support and finally the various sponsors that helped defray cost.



Fig02 – Team members of FT5ZM DXpedition pose in front of their ship, Braveheart.



Fig03 – A farm of antennas grow on a ridge near one operating station.

Amsterdam at a Glance **FT5ZM**  
AMSTERDAM ISLAND 2014



Fig04 – Arnie N6HC and team member Steve VE7CT



Fig05 – At Dayton, each FT5ZM member received a plaque for "2013/2014 DXpedition of the Year"

A break was then called before the formal business section of the meeting began. All officers were in attendance except for Director at Large – Greg – W6ATB.

Announcement was made that next month's General Meeting speaker is Doug Millar – K6JEY presenting the topic "Sidewalk EME".

Treasurer – Ken – K6HHC reported that about \$1200 was spend on Field Day and after donations the club only needed to cover about \$247.

Tech. – Bob – AF6C presented the new cable he build to replace the one that failed during Field Day.

Chip – K7JA lost his power supply to a surge when the cable failed during FD. Tim – N6GP reported that Chip had been able to get it repaired by Powerwerx for free. The manufacturer really stood behind their equipment. Nice job.

Tom – W6ETC – thanked various members of the Field Day group. Said he really appreciated the efforts that everyone put into it. He also appreciated the use of Greg – W6ATB's generator during that time when the main generator was off line.

Meeting adjourned at 9:23pm.

Respectfully submitted by:

Tim Millard, N6TMT, Secretary 2014.



**OCARC Board Meeting Minutes  
for  
2014-July-12**

**OCARC Board Meeting Minutes for: July 12, 2014**

The OCARC Board meeting was held at the JägerHaus Restaurant, 2525 East Ball Road, Anaheim, and called to order by President Nicholas AF6CF on Saturday, July 12, 2014 at 8:13 am. All directors except Greg – W6ATB and Tom – W6ETC were in attendance. Also, two members attended – Gene – KJ6OML and June – AG6UG. Additionally there were 3 family members of Ken – W6HHC who stayed to have breakfast.

**DIRECTOR REPORTS**

**Treas** –Ken - W6HHC – FD expenses total around \$1,195. FD donations totaled \$948. The FD net cost about \$250, however may see a few more receipts. So far this year club finances in good shape with about \$400 more received in then spent.

**Membership** – Doug W6FKX – 3 new membership forms received. He will prepare a 2014 roster.

**Publ.** – Robbie – KB6CJZ – HRO has plenty of club flyers.

**Tech** - Bob – AF6C- mention the log files from FD used PH for phone when the official file needs to either reflect PHONE or SSB. Tim –N6GP will talk with Bob about how to fix this issue.

**No other Directors reports presented.**

**Old Business:**

- 1.) **Newsletter Editors:** Aug- N6GP; Sept – AF6CF, Oct-AF6C, Nov-W6ATB, Dec-W6HHC.
- 2.) **General Meeting Entertainment,** July – Arnie – N6HC – New Amsterdam Island, Aug – Sidewalk EME, Sept. ?, October - Auction
- 3.) **FD 2014: Chairpersons and Doc status report.** – Both Co–chairs – expressed good feelings regarding FD, Nicholas mention the real world problems we had such as the cable failure effecting generator power and said this sort of thing happens in real emergencies. Tim mention 3 issues that he saw – getting better antenna’s for digital modes, perhaps running GOTA station as a none contest station on 17m and making sure CW has plenty of help for teardown. Sign-in sheets reflect 110 in attendance. The FD planning status report document will be updated during the next month to reflect additional details learned from this year’s FD.
- 4.) **Field Day input and concerns** – Member concerns that food was not kept warm. This was particularly a problem with Friday night’s dinner where some did not make it over to the food when it first arrived because they were determined to first finish up their work before eating. Also, extra items such as chips with the sandwiches would have been appreciated. Cold water in clearly marked coolers was an issue as well. Member comment that the Info tent needs a large sign saying “sign in here”. A water cooler with sufficient water for participates and guest as well. Perhaps an assigned info chairperson for future FD’s would take charge of these items?

Member comment that they had a great time and greatly appreciated that they could help out from the assembling of antennas on Thursday evening through final tear down. It was a great learning experience.

Trash Issue – Club President reported he was notified later that there was a problem with trash all over the field. Liaison cleaned it up personally and apologized to school district contact. Several board members testified to the fact that the field was left in spotless condition on Sunday afternoon. This was accomplished by

the Scout Troop members doing a walking sweep across the field and club members being conscientious about cleaning up.

Other board members speculated that trash and pizza boxes left in trash cans near the restroom may have been scattered overnight by animals, wind or vandals. Board members recommend that if we are at Walter Knott next year that all trash is to be taken to the trash bin in the south parking lot.

- 5.) **OCARC Coffee Mug orders** – Paul – W6GMU reports that he has 15 mugs yet to be collect by 14 members that have purchased them. Getting those people to a meeting when Paul is there with their “mug” has been an issue. There are also 9 “generic” mugs for club speakers.

### **New Business**

- 1.) **Opportunity Drawing expenses study committee.** – After the last month’s general meeting discussion on the opportunity drawing and the legal questions around if we can legally have one, the board members continued to discuss these issues further. It was determined that a separate “study” committee is not needed but the board will itself look at these issues. After some discussion a motion was made “to suspend opportunity drawing until legal issue resolved”. This motion was approved. Next another motion was made “to offer door prize at next General meeting not to exceed in cost to club of \$50”. This motion also was approved. It was also suggested that with the purchased door prize there be included a second “white elephant” prize given out as well.
- 2.) **Online interactive membership form.** – The web site company upgraded to PHP5 code. Bob has made changes to our interactive membership form to accommodate the upgrade. Board members were asked to send some test cases through the system to make sure all performs as expected.
- 3.) **Club generator issues during FD.** - The generator power was interrupted several times due to a cable adapter. After 14 years the cable faulted out causing loss of power. Bob has repaired and made new the adapter so it should last well into the future. Unfortunately, Chip K7JA suffered a complete loss of a power supply when the power surged. The Vice President is in touch with Chip to find out if there is anything we can do. Also, Dan – KI6X lost a power strip to the issue. A board member suggested that for the future we monitor power through the line to perhaps avoid equipment burn out. Atlee – N2CNC is investigating cost of repair for our spare bent tower.
- 4.) **Field Day 2015 Site selection committee** - Board will be look at several options for location of next year’s FD.
- 5.) **Consider possible club social activity for later this summer.** - Paul will explore some options and report back to the club.
- 6.) **Monthly Board Planner** – Further discussions deferred to next month

Adjourned at 9:52 am

Respectfully submitted by: Tim Millard N6TMT, Secretary 2014.



# Western Amateur Radio Association

## NOW OFFERING AMATEUR RADIO VE TESTING SESSIONS

Contact V.E. George T. Jacob Jr. N6VNI

Phone Numbers: Home Phone: 562/691-7898 Cell Phone: 562/544-7373

Email: [jac2247@gmail.com](mailto:jac2247@gmail.com) Or [N6VNI@arrl.net](mailto:N6VNI@arrl.net)

Sponsoring Club: N6ME Western Amateur Radio Association,  
Fullerton, Ca. "WARA"

Test site location:

La Habra Community Center.  
101 W. La Habra Blvd.  
La Habra, Ca. 90631

Date and Times - Third Thursday of every month, @ 6 P.M. unless otherwise noted.  
Pre-Registration is requested and preferred. Walk-ins are welcome.

### 2014 TESTING SESSIONS

Thursday, August 21<sup>st</sup> 2014 6p.m.

Thursday, September 18<sup>th</sup> 2014 6p.m.

Thursday, October 16<sup>th</sup> 2014 6p.m.

Thursday, November 20<sup>th</sup> 2014 6p.m.

### On Exam Day Bring the Following Items

1. A legal photo ID (driver's license, passport) or Two forms of non-photo ID; e.g., birth certificate, social security card, library card, utility bill or other business correspondence with name of the examinee as it appears on the Form 605 and current mailing address.
2. Your Social Security Number (SSN) or FCC-issued Federal Registration Number (FRN).
3. If applicable, the original and a photocopy of your current Amateur Radio license and any Certificates of Successful Completion of Examination (CSCE) you may have from previous exam session. (Photocopies will not be returned.)
4. Two number two pencils with erasers, and a pen.
5. A calculator with memory erased and formulas cleared (no iPhones, iPads, etc.).
6. Test Fee: \$15.00 (cash or check).

**If you fail an element and wish to retake it, we are required to charge an additional test fee. If you pass an element, we typically offer and encourage you to take the next element. We do not charge an additional test fee for this and it gives you the opportunity to see what the next exam element is like!**

**OCARC Cash Flow**

1/1/2014 through 8/6/2014

8/5/2014

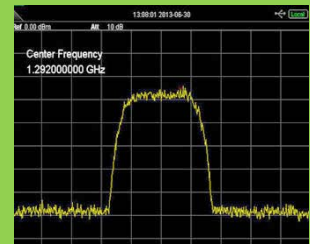
Page 1

Category	1/1/2014- 8/6/2014
<b>INFLOWS</b>	
ARRL Membership Income	78.00
Badge Income	33.50
BADGE MAILING	2.50
Coffee Mug Sales	60.00
Donations - FD Food	948.00
Donations - Scoutarama	250.00
Dues, Family	280.00
Dues, Future	40.00
Dues, Membership	1,220.00
Opportunity Drawing -Monthly	471.00
Radio Sales Receipt	100.00
Reservation Deposit Refund	200.00
<b>TOTAL INFLOWS</b>	<b>3,683.00</b>
<b>OUTFLOWS</b>	
ARRL Membership Expense	61.00
BSA - OC	257.50
CA Statement Of Info filing	20.00
Coffee Mug Expense	80.00
Field Day - Flowers	64.80
Field Day - Generator Costs	46.00
Field Day Equipment	39.48
Field Day Food	994.74
Opportunity Drawing - Monthly	895.17
PO Box Rental	77.00
Printing - Club Brochures	482.84
Printing - membership Forms	110.38
Supplies	15.77
Web Site Hosting	134.91
<b>TOTAL OUTFLOWS</b>	<b>3,279.59</b>
<b>OVERALL TOTAL</b>	<b>403.41</b>



## Digital Amateur TeleVision Exciter/Transmitter

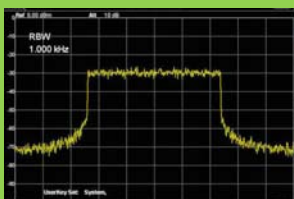
Now available from



# DATV-Express



- A more affordable DATV exciter can now be ordered
- Fully assembled and tested PCBA
- DVB-S protocol for DATV (using QPSK modulation)
- Can operate all ham bands from 70 MHz-to-2450 MHz
- RF output level up to 10 dBm (min) all bands (DVB-S)
- Software Defined Radio (SDR) architecture allows many variations of IQ modulations
- “Software-Defined” allows new features to be added over the next few years, without changing the hardware board
- As extra bonus, the team has been able to get the board to transmit DVB-T 2K mode, however we cannot guarantee the performance of that protocol. Caveat Emptor!
- Requires PC running Ubuntu linux (see User Guide)
- Price is US\$300 + shipping – order using PayPal



For more details and ordering

[www.DATV-Express.com](http://www.DATV-Express.com)

Register on the web site  
to be able to see  
the PURCHASE page

