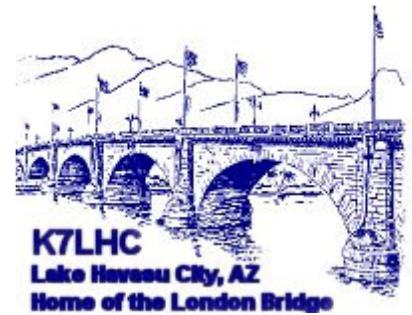


STATIC



December 2007

HAMS STEP INTO COMMUNICATION VOID

(by Rod Jones, Seaside Signal, Seaside, Oregon, December 13, 2007)

If there was ever an example of the importance of Ham radios, the storms last week were it.

When all other forms of two-way communication crashed for more than a day, Ham operators stepped in to fill a vital role in emergency response. Seaside and most parts of the county not only lost landline phone service, but also cell phone service. Even the 9-1-1 service was out for about a day, a service considered so important that a few minutes of its absence sends chills up the spines of emergency responders.

Dozens of Ham radio operators took to the airwaves to fill the communications void during the strongest part of the storm, helping to keep some order to an otherwise chaotic situation.

One local Ham has been preaching the Ham gospel for the past couple years. Jeff Holwege, one of the founders of a new local amateur radio club called WA7VE, credited the local Ham radio operators for their quick and critical response.

“The story of those few days were old Hams, new Hams and young Hams,” Holwege said, mentioning that some of those who responded to the radio call were operators as young as 12 years old, “With their parents knowledge, of course,” he added.

The Hams set up operations at the Seaside Police Department, Seaside Fire Department, Bob Chisholm Community Center and Providence Seaside Hospital, while some radio operators worked from home and various other locations. Holwege explained that the central operations stayed in contact with the Emergency Operations Center in Astoria during the peak period of the emergency, and everything on their end clicked along well despite the many challenges.

When the priority radio traffic slowed down, Holwege said the Hams were able to send “health and welfare” messages from residents to their families in other areas, as standard phone service was down for more than a day.

(continued page 2)

LBARA MEETING SCHEDULE

MONTH	BOARD	REGULAR
DECEMBER	NOTE: BOARD	12/20
JANUARY	MEETINGS WILL NOW	1/17
FEBUARY	TAKE PLACE ONE	2/21
MARCH	HOUR PRIOR TO THE	3/20
APRIL	REGULAR MEETING	4/17

HAMS STEP INTO COMMUNICATION VOID

(continued from page 1)

Holwege was especially proud of the newer operators, many of whom got their licenses within the past few months following a recent rash of classes. He said the radio club does regular weekly check-ins called ARS Nets, which probably helped the communications picture stay steady last week as not only a practice tool, but also getting to know fellow Hams better.

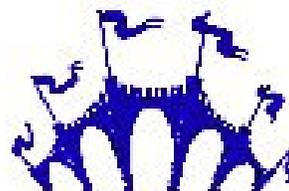
“At first, some were unsure of themselves, but we weren’t unsure of them,” he said of the newer Ham operators. “They did fantastic. When you’re put in the fire, you have to learn.”

Remember.....disaster can hit anytime, anyplace.

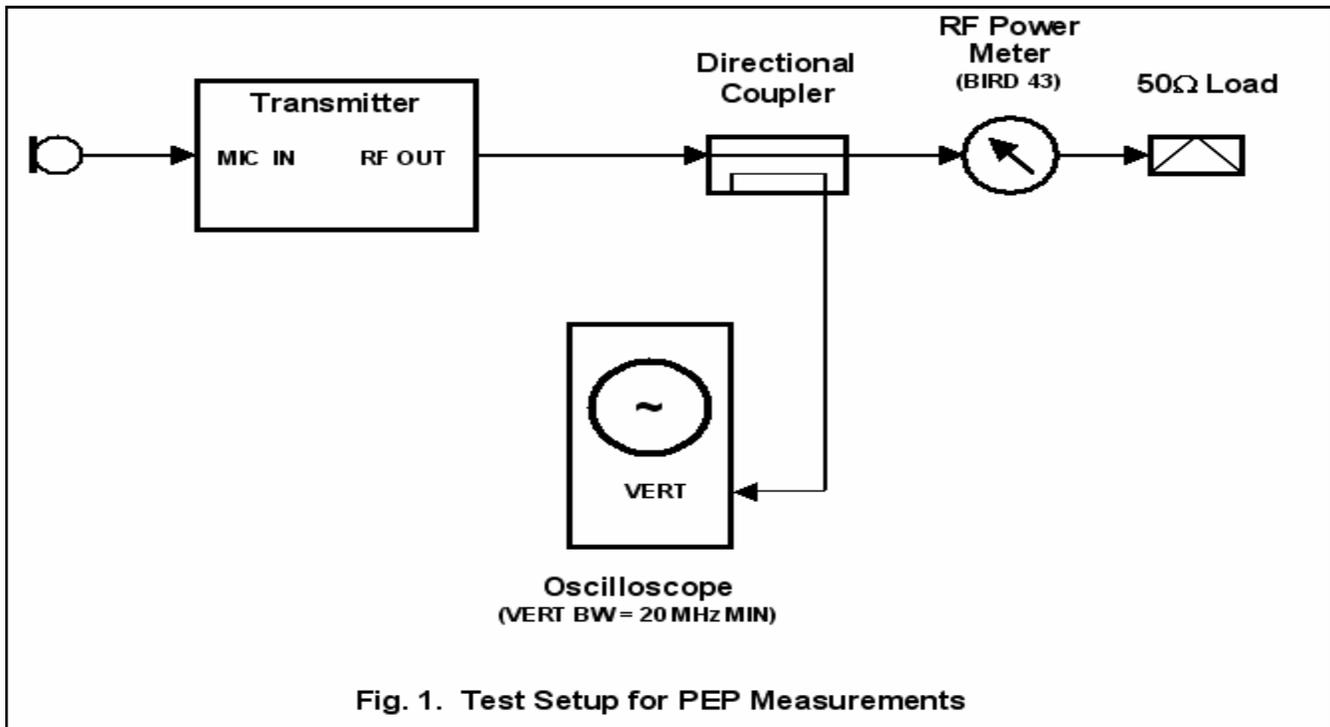
Are you prepared?

Monday Night Net (7 PM)

System	Location	Freq	Offset	PL
MCARS	Bullhead City	145.27	-	131.8
	Kingman	146.76	-	131.8
	Kingman	448.25	-	131.8
	Lake Havasu	146.62	-	131.8
	Willow Beach	147.12	-	131.8
CRRRA	Lake Havasu City	146.96	-	162.2
	Lake Havasu City	224.24	-	156.7
	Lake Havasu City	146.64	-	156.7
	Lake Havasu City	449.95	-	141.3
BARN	Lake Havasu City	447.54	-	136.5
	Las Vegas, NV	449.95		136.5
	Onyx(Palm Springs)	449.34	-	136.5
	Orange County, CA	447.54	-	100



A Simple SSB PEP Measuring Procedure



The following is a brief procedure for measuring SSB PEP (Peak Envelope Power), using an oscilloscope with a vertical bandwidth of at least 20 MHz*, or a monitor scope.

Note 1: Definition of PEP: Peak Envelope Power (PEP) is the average power supplied to the antenna by a transmitter during one radio-frequency cycle at the crest of the modulation envelope taken under normal operating conditions.

Note 2: In RF power metrology, the Crest Factor (CF) is defined as the ratio of PEP to average power.

Thus, $CF = PEP/P_{avg}$

In the CW modes (CW, RTTY, FM), $CF = 1$. In SSB, depending on voice characteristics, average power may run 50% to 65% of PEP ($CF = 1.53$ to 2). In properly-adjusted AM, average power at 100% modulation = $1.5 \times$ resting carrier power, and $PEP = 4 \times$ resting carrier power, i.e. $CF = 2.66$.

- Connect the equipment as illustrated in Fig. 1. (The Bird Electronics 4274-025 [sampler element**](#) is available at [RF Parts](#), and fits any [Bird element-style](#) wattmeter. The coupler shown in Fig. 1 is not required when using the sampler; simply connect the oscilloscope vertical input to the sampler's BNC output.)
- A line sampler can also be made up by inserting a coaxial T-fitting in the feedline, and loosely coupling the branch of the T to the vertical input of the oscilloscope via a 1 pF high-voltage capacitor at the fitting.

(continued on page 6)



**YOU'RE INVITED TO A
CHRISTMAS PARTY**

**LBARA INVITES YOU TO ITS
ANNUAL CHRISTMAS PARTY**

**SATURDAY, DECEMBER 22nd
EAGLES CLUB**

**COCKTAILS AT 6 PM (cash bar)
DINNER AT 7 PM**

MENU

- Turkey, Roast Beef, or Ham
- Salad
- Desert

PLEASE BRING A \$5 GIFT TO SHARE WITH EACH OTHER

There will be no cost to members and their spouses. However, if you are going to attend, you must forward \$10/person. This will be refunded to you at the party.

Non-members are welcome at \$10/person. Make your check payable to LBARA. Your purchase must be made no later than December 15th.

Please forward your ticket purchase to:

**Dick Jernigan
3829 Bluegrass Drive
Lake Havasu City, AZ 86406
For information: 855.0670**

UPCOMING ACTIVITIES AND HAMFESTS

2008 WestFest—January 12—Thunderbird ARC at the Thunderbird School of Global Mgmt, Greenway and 58th Ave in Glendale, AZ. This is the first indoor Hamfest in AZ. Take a look at www.w7tbc.org

2008 Quartzfest—January 20-26th. This is a gathering of RV's near Quartzite, AZ. See www.quartzfest.org

2008 Yuma HamExpo—February 15-17th. Yuma County Fairgrounds. See www.yumahamexpo.com

2008 Williams Hamfest/ARRL AZ State Convention, July 18-20th, Williams, AZ. See www.arca-az.org

2008 ARRL Southwester Division Convention—September 12-14th, Mesa, AZ. See www.AzHamCom.org



HAS CYCLE 23 FINALLY STARTED?

The K7RA Solar Update (Dec 14, 2007) -- Sunspot 978 made a strong showing this week, and daily sunspot numbers are up as a result. The average daily sunspot number for this week rose more than 25 points to 36.7, and the average daily solar flux (the amount of energy we receive from the Sun at a wavelength of 10.7 cm or 2800 MHz) rose more than 14 points to 87.2. The sunspot numbers on December 9-11 were 42, 43 and 44. Sunspot numbers haven't been nearly this high since July 14-15 of 2007, when it was 41 both days. The daily sunspot number hasn't been higher since June 2-8 of this year, when it was 45, 58, 58, 63, 47, 59 and 51. Sunspot numbers for December 6-12 were 29, 24, 36, 42, 43, 44 and 39 with a mean of 36.7. The 10.7 cm flux was 78.2, 82.2, 86.9, 88.9, 86.9, 93.4 and 93.9 with a mean of 87.2. Estimated planetary A indices were 1, 1, 0, 2, 8, 12 and 7 with a mean of 4.4. Estimated mid-latitude A indices were 1, 0, 1, 1, 5, 9 and 7 with a mean of 3.4.

FOR SALE/TRADE

What do you have? See the Editor

A Simple SSB PEP Measuring Procedure

(continued from page 3)

- Set the timebase to a fairly slow sweep rate (e.g. 10 msec/div).
- Connect the transmitter output via the line sampler to an RF power meter accurate to within $\pm 5\%$ or better (e.g. a Bird 43) terminated in a 50 ohm load.
- Ensure that the internal autotuner (if fitted) is OFF.
- Select RTTY, key the transmitter and set the RF output to read 100W on the Bird.
- Adjust the vertical gain on the oscilloscope for a convenient display size, e.g. 8 div. P-P. Note the ALC meter deflection on the transmitter.
- Select SSB mode with compression off, speak into the microphone and adjust Mic Gain for the same ALC meter deflection as noted in step 6 above.
- Observe the peak-to-peak amplitude of the SSB RF envelope. Adjust the oscilloscope timebase for convenient viewing of the envelope. If the Mic Gain is correctly set, this amplitude will be 8 div. P-P, as in step 5 above. This corresponds to 100W PEP RF output.
- If the above procedure shows a significant difference between the RTTY and SSB PEP output, there may be a problem in the transmitter.
- When reading PEP, an oscilloscope will always read peak values more accurately than a meter, as its rise-time is practically instantaneous for our purposes. Even a bar-graph meter may have a longer rise-time than an oscilloscope.
- Prolonged uttering of the word "FIVE!" as in **FIIIIIIVVVVVVVEEEEE!** provides a particularly useful test signal. The succession of peaks readily stands out and if the peaks are sharp and clean at their tops, you can be assured of a clean SSB signal without clipping or distortion.
- Modest compression or soft peak limiting shows as a gentle rounding of the speech peaks, rather than the abrupt flat-topping associated with hard clipping.
- Also observe the ratio of the total amount of coloured area on the scope screen whilst speaking into the microphone, as compared to the CW or RTTY pattern. That ratio is roughly the difference in average power between the key-down CW state and SSB. Compression and other processing will show up vividly as an increase in the amount of coloured area displayed.

*** This is not a critical parameter. Any oscilloscope with sufficient vertical bandwidth to display the RF envelope is usable.**

**** The Bird Model 4274-025 is a wide range device that provides an unrectified signal at about $-50 \text{ dB} \pm 2 \text{ dB}$ from 25-1000 MHz, tapering to -66 dB at 2 MHz.**

Copyright © 2002 A. Farson VA7OJ/AB4OJ. Last updated: 10/28/2007

Contributed by Gary Fisher, K9WZB

Congratulations on your New License

Welcome to the World of Amateur Radio

James D. Bowen KE7QBM

Linda F. Faulkner KE7QBL

Andrew M Lucas KC9MOJ

Ed Gillispie, AB7EM

VE Team Director

THINGS YOU SHOULD KNOW BUT PROBABLY DON'T.....

- On average, 12 newborns will be given to the wrong parents, daily
- Orcas (killer whales) kill sharks by torpedoing up into the shark's stomach from underneath, causing the shark to explode.
- Most lipstick contains fish scales.
- Leonardo DA Vinci could write with one hand and draw with the other at the same time ... hence, multi-tasking was invented.)
- There are no clocks in Las Vegas gambling casinos.
- A tiny amount of liquor on a scorpion will make it instantly go mad and sting itself to death.

LBARA OFFICERS AND DIRECTORS

Cliff Baril	President
Bob Gilbertson	Vice-President
Reiner Schick	Treasurer
Sharon Fisher/Lyle Sibbald	Secretary
Dick Jernigan	Director (1 YR)
Mike Burson	Director (1 YR)
Jim Gould	Director (2 YR)
Jerry France	Director (2 YR)
Russ Nyblom	Sgt-at-Arms
Ed Gillespie	Web Master
Jerry France	Static Editor

VISIT OUR WEBSITE

www.lbara.net

FROM THE EDITOR

If you have anything you would like to see included in these issues, please let me know. I'm always looking for articles, news items, construction articles, or anything that might be of interest to our readers. You can contact me at 928.855.7941 or email at grf@unneedspeed.net or francej@ajsinsurance.com.

L.B.A.R.A
P.O. BOX 984
LAKE HAVASU CITY
ARIZONA 86405

STATIC

ATTENTION READERS

Please note that this issue represents a “work-in-progress” and there are a number of changes to be made in subsequent issues. I would greatly appreciate your comments, both good and bad, as well as any suggestions for future issues. This issue also begins our first attempt to deliver the **STATIC** to your doorstep electronically. Please keep me abreast of any email address changes you may have and I promise to have this delivered promptly and accurately. Also, I still have a number of articles awaiting publication and will do so in the future. This is your newsletter, so keep the articles, letters, and pictures coming. I can be reached at home (855.7941), at work (855.3081) or via email at grf@uneedspeed.net .

EQUIPMENT FOR SALE

EDITOR'S NOTE: List your items for sale here. Ham radio related only, please. Include a picture if you like (please use a jpg format). Email all to me at grf@uneedspeed.net along with your name and phone number.

