

# Random Radiation

The Journal of the



## The Pacific Amateur Radio Guild

Established 1969 by Howard S. Pyle, W7OE (SK)

#### **Net Schedules:**

9 AM Daily (1600 UTC) - 7034 KHz - NCS:

Sun - N7MFB, Bill

Mon – N6AU, DG

Tues –W7VDQ, Tom

Wed – WB6N, Terry

Thurs – WA7MMM Greg

Fri –AA6ZE, Pete

Sat – K7ZED, BB

8PM Sundays 3545 KHz NCS

Sun -- N6KIX,-Rob

## **Net Volunteers:**

President: Bill, N7MFB

General Manager: Open Need Volunteer

Treasurer: Dave Noall K7GZP

12877 NW Lorraine Drive, Portland, OR 97229 Editor / Publisher: Larry Shirk AA7UA

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WA 98166

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Issue: March through November 2019

#### **PARG Status:**

## **Net Activity:**

Dailey 40 Meter Daily Net Current NET procedure is for NC to begin calling the PARG net on 40 meters, 7034 KHz, and picking up both the "long skip" (low angle radiation) and "short skip" (high angle radiation).

#### 80 Meter Net onTuesday, Thursday and Saturday

When conditions are poor and 40 meter "short skip" isn't working we switch to our 80 meter frequency. 3545 KHz, following the 40 meter net session, and pick up all the remaining "short skip" stations there. Lately conditions have been such that both frequencies are often needed.

Sunday Net: Don't forget the 80 meter net which meets on Sundays at 8PM PST on 3545 kHz. Rob, N6KIX has graciously accepted the NCS role for the Sunday night net.

Thanks to those members who are hanging in there supporting the PARG net during difficult propagation conditions. The use of both 40 and 80 meter bands plus listening in on SDR receivers helps keep us all together. Better times are coming, and they can't come soon enough for most of us.

Treasurers Report

**David K7GZP** The current balance in checking = \$1056.18

\$20.59 Cash \$1066.18 Checking Account PayPal \$25.00

**Uncle PARG Wants You----**Please keep your inputs to the PARG editor coming. Your shack, family, vacations, pets or anything else of interest especially if you would like to hear of something other than AA7UA and family hi hi.

Larry Shirk AA7UA aa7ua@comcast.net 21005 Marine View Drive SW Normandy Park, WA 9816

#### **Around the Net:**

#### **David Noall K7GZP**

One of my other hobbies is clock repair and restoration.

Here is one of my recent purchases, a circa 1950 Ship's Radio Room Clock.

The red markings around the edge are for sending a distress signal of 12, 4 second dashes each separated by one second. To set off an automatic alarm on nearby ships. It also has markings for 3 minute silent periods for listening for weak signal distress calls on 600 meters.

The clock was first made by the Chelsea Clock Company in 1931. Attached is a page from the September 1931 issue of Marine review announcing the production of new clock.



N CO-OPERATION with the Chelsea Clock Co., the Radiomarine Corp. of America, 66 Broad street, New York, has developed a special radio room clock. The clock, illustrated herewith, has been especially designed to facilitate transmision of the alarm signal provided by the international radiotelegraph convention and the international conference on safety of life at sea. The



Special Radio Room Clock

alarm signal consists of 12 dashes, each four seconds long, with an interval of one second, to be transmitted during a period of one minute.

The clock is provided with a sweep second hand and special red markings on the dial, making it easy for the operator to accurately time the four second dashes and one second spacing. This is to assist in sending out signals of exactly four seconds' duration in emergency. Such signals, separated by silent intervals of one second, will operate automatic devices in ships within range and call radio operators to their posts if they should not be on watch.

Other special markings are provided to call the operator's attention to the three minute silent periods which must be observed by all radio stations at 15 and 45 minutes past each hour.

The movements are 7 jewelled lever escapement with compensation balance, Brequet hairspring, cut wheels, cut steel pinions, hardened ground and polished.

#### Fernando N2FQ/6

I have modified many of my rigs to suit my style of operating. Some are easy and others are more intrusive. The easy ones are replacing the Molex connector to Power Poles, changing out the SO-239 to BNC. Replacing the stock cooling fans with much quieter ones. The intrusive ones are removing SMD to open the TX (called the MARS mod), removing and replacing SMD in the audio circuit for a more mellow sound in the IC-7200. You still can tinker with these new types of rigs, albeit modestly.







N2FQ/6 Fernando

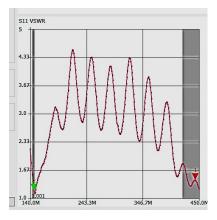
## Larry AA7A

The January/February QEX had an article on an ultra low cost network analyzer called the Nano VNA. I purchased one from eBay for about **\$50**. The commercial VNAs like the one I used ad Boeing cost tens of thousands of dollars. Although not as versatile or accurate the little Nano does a remarkable good job for ham use. It costs emensly less than an MFJ Antenna Analyzer and is capable of a lot more measurements. Free download software that runs on your PC produces some nice charts. You can find this VNA for sale on Amaaon.com



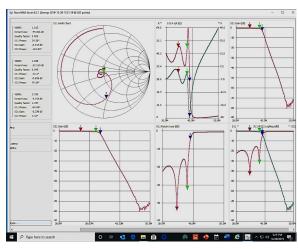
Measuring SWR of a 2 band Mag mount

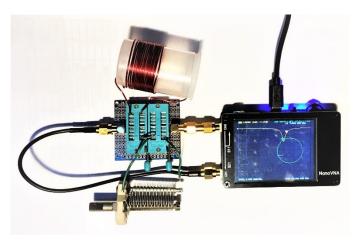






Measuring a Low Pass Filter





Measuring series L C circuit that has A resonance somewhere around the 40 meters, like a trap.

Impedance: 61.18 -j0.4 Ω Return loss: -19.946 dB Stop 10MHz Span 5MHz Quality factor: 0.007 S11 Phase: -1.84° Series R: 61.18 Ω 6 8.264kHz/step Sweep settings ... Series C: 58.892 nF S11 Group Delay: -1.9227 µs S21 Gain: -0.286 dB S21 Phase: -0.56° S21 Group Delay: 108.43 ns Parallel R: 61.183 Ω 100% 2.5205 pF ep Stop Parallel L: -220.44 µH Parallel C: 2.5205 pF ■0 Series R: Quality factor: S11 Phase: S11 Group Delay: S21 Gain: Hide data Locked O Estimated cable length: 12061.873 m S21 Phase Time Domain Reflectometry ... Parallel C: S11 VSWR Frequency: VSWR: Return loss: Quality factor: S11 Phase: Series L: 17.0 Parallel X: S21 Phase: Parallel L: 13.0 Set current as reference S11 Reset reference Return loss: -19.946 dB Serial port COM4 V Rescan S21 Min gain: -12.482 dB @ 9.99972MH Disconnect Manage Files ... Calibration ... Display setup ... About ...

S11 Smith Chart

Marker 1

Frequency: 6.75193 MHz

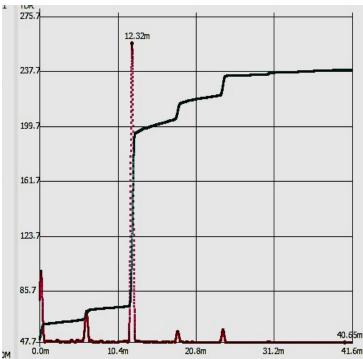
Start 5MHz Center 7.5MHz

Here we are measuring a length of RG58 coax That is 12.33 meters long. Using the Time Domain Reflectometer mode. You can also see an Inline barrel connector at about 6 meters and the connector at the VNA at approxomately 0 meters.

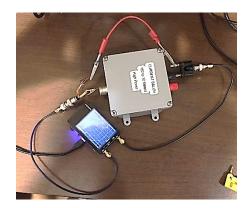
The second reflection (second time around) is shown on the graph beyond the 12.32 meter mark

Thia VNA can perform all the measurements listed below:

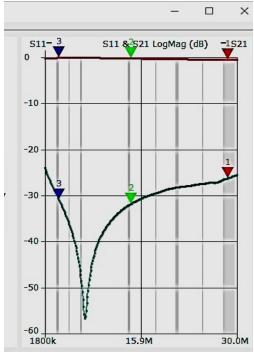
- SWR
- Resistance and reactance at the cable input
- Resistance and reactance at the antenna terminals
- Resistance and reactance of discrete components
- Return loss
- Transmission loss
- Isolation/coupling
- Reflection coefficient
- Cable length
- Cable impedance (Zo)
- Cable loss
- Distance to fault (open or short)
- S parameters
- Time Domain reflections along a transmission Line



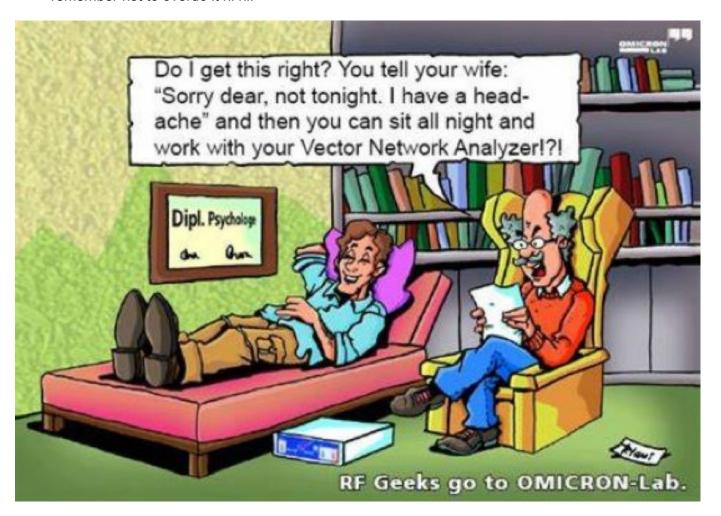
This home brew high power current balun (below) measures suppression of RF on the outer shield of coax that is in excess of 25 dB from 160 through 10 meters.







This little VNA device is loads of fun and can provide a ham with hours and hours of enjoyment. Just remember not to overdo it hi hi.



### **The Sow Speed Net**

PARG does not have a slow speed net in operation at this time, however, many PARG members have been working at putting together resources for those who need a slow speed option to improve code proficiency. In addition there has been some recent interest is starting a PARG slow speed net. In the interim some of the resources available include: 1) FISTS, The International Morse Preservation Society 2) SKCC, Straight Key Century Club <a href="https://www.skccgroup.com">www.skccgroup.com</a> 3) WCN, West Coast Slow Speed Nets, WCN is a training net, <a href="http://west-coast-net.info/">http://west-coast-net.info/</a>. 4) NAQCC, North American QRP CW Club <a href="http://naqcc.info/">http://maqcc.info/</a> this group is currently running a slow speed CW group and Stewart KE7LKW writes: "I would like to invite any PARG members who would like to participate in the PNW NAQCC QRS net to check in. No one has to be a NAQCC member and you do not have to be QRP. The PNW NAQCC QRS net is on Thursday night at 7PM (PST) to 3.5565. NCS is usually Stewart, KE7LKW, QTH White Salmon, WA.

**QRS Practice:** Most PARG members will be glad to QSO at a slower speed before or after the nets. Let any PARG member know if you would like a QRS QSO and enjoy some good practice.

# For those receiving a copy of Random Radiation the following information about PARG may be of interest:

The aims of PARG are: 1) to maintain a communications network with competent and skilled CW operators through organized nets and inter-member contacts; 2) to promote and encourage fellowship between Pacific Coast and Western Region Amateurs; 3) to continue the cordial social relationships enjoyed by membership existing over the decades; 4) to encourage, by example, the wider use of power levels necessary to effect reliable communications, thereby reducing QRM on the Amateur bands.

PARG maintains a daily social CW net on or near 7034 kHz at 0900 Pacific time 7 days per week and a CW net on or near 3545 kHz at 8 PM Pacific time on Sunday`s. Net Control stations vary with each t meeting.

Membership dues are \$5.00 per year (which includes a subscription to Random Radiation) but guests are always welcome to check-in to the nets and join in the conversation. A membership application form is available from our President N7MFB. Membership dues are sent to the Treasurer.

Visitors to the net often hear members end their comments with the word POMSAT. This is an old military term which means "Personnel, Operations, and Materials Satisfactory." It suggests that all is well! Another term used is KPOA which means "Keep PARG on the Air."

#### SeaPac 2020

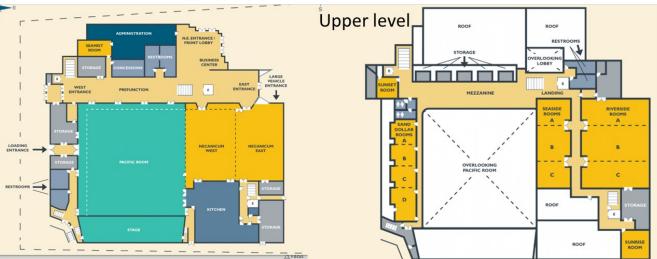
The last time I checked SeaPac 2020 is still on the calendar. Let's hope that the Virus problem gets resolved in in time for SeaPac to remain on schedule this year. Dave Noall K7GZP is reserving a club table for PARG. Several of us have decided to meet at Fultano's Pizza on Friday night. The address is 215 Broadway Street, Seaside, Oregon which is within walking distance of the convention center. 7 PM sounds like a good time but we can firm up on that later. Hope to see many of you there.

#### SeaSide Convention Center

Constructed in 1971 and renovated in 2018/2019, the SCCC has 24,600 square feet of usable meeting and event space. Additional Prefunction and Mezzanine areas add 8,900 square feet, ideal for vendors and social networking.



### Lower level



The SeaSide Convention Center remodel/upgrade is complete with more room than ever. You just have to attend this year and look the upgraded facility over.

## **Roster June 2019**

## New members and regulars are highlighted

A-NU6	John	Bellingham, WA	IET-N6	Rick	Los Angeles, CA	
#402			#430			
AAZ—W7 #398	Bill	Twin Falls ID	IFG-K7 #378	Ken	Beavercreek OR	
AMZ-VE6 #376	Dan	Vauxhill AB	II-AI6 #405	Mike	Fairfax, CA	
AU-N6 #416	DG	Friday Harbor WA	JJR-K6 JKP-KG7	Mark MICHA	Auburn CA	XXX
AXKL2 #272	John	Homer, AK	#436	Don	Fallbrook CA	
#373 AXT—WA7 #422	David	Snohomish, WA	JL—W6 #277 JWV-K9	Don Jim	Fallbrook, CA St. George, UT	
BAU—KD7 #388	Al	Seattle, WA	#380 JLT—KA6	Rob	Walker	
BC—AD6 #337	Lou	Clayton, CA	#426 KAI-WA7	Dave	Milwaukie, OR	
BGJ—VE7 #362	Walt	Burnaby, BC	#392 KIX—N6	Rob	Davis, CA	
BWH-K7	Barry	Sammamish WA	#304			
#397 BXP—KL7	Tom	McCleary WA	KXB-W7 #386	Bill	SeaTac, WA	
#433 CPP—N7	Bruce	Carson Cty NV	MDK-W7 #428	Dick	Peck, Idaho	
#184		·	MFB-N7	Bill	Pt. Angls, WA	
CTQ-KH6 #401	Peter	Chiloquin, OR	#320 MJD-WD0	Duane	Rnch Cdva CA	
DPV-W7 #431	Don	Copeland, Banks OR	#409 MMG-W6	Alex	Belmont, CA	
DRK-KC7 #411	Sando	Pt. Orchard WA	#395 MMM-WA7	Greg	Portland, OR	
DWG-VE7	Dave	Aldergrove, BC	#101	_		
#330 EHM—W7 #244	Pat	Reno, NV	NBM-KC7 # N-WB6	Paul Terry	Spokane, WA Donnelly, ID	
EID—K7	Les	Clinton, WA	#385	-	·	
#370 FQ-N2	Fernan	do San Jose CA	OPO—W6 #371	Bob	San Jose, CA	
#377 FU—NO	Bill	Chula Vsta, CA	PCR—W7 #358	Dan	LA, CA	
#366 G—NY6	Stan	Tracy, CA	POEW7 #406	George	Burien, WA	
#328 GB—W7	Don	Moses Lk, WA	QXO—KD7 #425	Rod	Sparks, NV	
#267			R – KB6	Bob	Llano, CA	
GZP-K7 #415	Dave	Portland, OR	#383 RA—K7	Tad	Seattle, WA	
HBY—KG7 #423	Sam	Sparks, NV	#427 RFQ-WB4	Dan	San Francisco	
HCN #437	John		#412 RR-N7	Bruce	Blaine, WA	
#437 HJV—WA7 #390	Jack	Pendleton, OR	#407 S-KD7	Bill	Diamo, WA	
#390 HP—K6	Ed	Murphy's, CA	#435			
#999 HYOKF7	Pete	Bonney Lake, WA	SB-KL7 #403	Steve	Anchorage AK	
#421		.,,	SC—N6 #359	Spence	S. Leandro, CA	

SGD—W6	Chip	Tarzana, CA	
#365 SJS – W7 #335	Ray	Salem, OR	
#325 SMR-W7 #393	Dick	Portland, OR	
SOM-W7	John	Bothell, WA	
#404 SPB-WB4 #394	Randy	Tacoma, WA	
SSQ—N6	Fergy	Hamilton, MT	
#289 TDC-KG7 #429	Glenn	Hubbard, OR	
7F-K6 #384	Rick	Colfax, CA	
#364 TOB-K6 #382	Dick	Newhall, CA	
#362 TQJ—WA6 #418	Gary	Davis, CA	
U-Al6 #050	Chris	Sacto, CA	
#030 UA-AA7 #387	Larry	Normandy Park, WA	
#367 UUJ-KE7 #399	Steve	Rock Springs, WY	
#399 UYH-W5 #361	Russ	Nampa, ID	
V-KO7 #434	Ron		
VDQ-W7 #369	Tom	Oregon City, OR	
VFQ-KF7 #420	Steve	Beaver OR	
VV-VA7 #419	Jerome	Vancouver BC	
WELW7 #347	Bill	St. Maries, ID	
WSG-K7 #413	Bob	Forest Grove	
Y—KI7 #424	Jim	Milwaukie, OR	
YSU-WA7 #389	Eric	Hillsboro, OR	
YT-N7 #414	Bill	Seabeck, WA	
YY-AC6 ZAC-W7	Ned KC	San Jose CA Spring Creek, NV	XXX
#379 ZE-AA6	Pete	Santa Rosa, CA	
#417 ZED-K7	BB	Woodburn, OR	
#034 ZI-W7	Mike	Beaverton, OR	
#400 ZSK-K7 #071	BJ	Gresham, OR	
#071 ZW-N6 #005	Mike	Lodi, CA	

Regular Check Ins # = XXX

Some Q Signals used on the PARG Nets:

**QNI** Net stations report in (for use only by net control station)

**QND** Net is directed (controlled by net control station)

QNN Net Control station is ...

**QNO** Station is leaving the net

QNP Unable to copy

**QNS** Following stations are in the net ...

QNX You are excused from the net

**QNZ** Zero beat your signal with Net Control Station Others:

**QFA** Would like to QSO with-----after the net

**QRU** Have you anything further to report/ask etc.

**QRY** What is my turn (indicates your place on the list of check-ins)

**QSP** Will you relay to ...

**RJ** Relief Jockey – a station substituting for the regular