ORANGE COUNTY AMATEUR RADIO CLUB, INC.

VOL. XLIX NO. 9

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

August 2008

The Prez Sez..... By Willie N8WP



Hello

OCARC,

Cheryl and I made an enjoyable trip across the US last month. For the time being we are settled in at Canton, MA.

I can see from the photographs that the OC Fair worked out. The Field Day submission has been made, we should expect to see some rankings soon. I know everyone had a good time at Field Day, so that means a win for all of us. This is the time of the year for some picnics. I will work with the Board to have a Fox Hunt, which will end in a park with a club picnic. I have been planning this for a while, and now I can not actually participate:(

I will be hunting for a good radio club to join here in New England though.

Have a happy and safe summer.

73, Willie - N8WP

Vice Prez Sez

With another successful Field Day over, we are already preparing for the next one by storing the equipment, towers and servicing the Club's generator. We look ahead into more fun with great speakers, the 75th anniversary reunion in September, the club auction in October and the Christmas party in December.

I hope you have a great month and see you all at the meeting!

73, DE Nicholas, AF6CF The OCARC program for the August meeting will be presented by Art Goddard – W6XD speaking on:

"Amateur Radio – Do We Take Too Much for Granted?"

How could we determine the public benefit of the entire Amateur Radio Service? How would we get our story out to decision-makers and the public? Who should do it?

August's OCARC program will be conducted "Town Hall" style.

In This Issue: Page

The PREZ SEZ	1
CLUB Information	
75 th Anniversary Reunion	3
August Program	5
DXpedition Doctoring	5
OC Fair Pictures	8
Heathkit of the Month	9
TechTalk #39	12
History of OCARC - Part 6.	14
OCARC General meeting	16
Board meeting Minutes	17
CLUB ASSETS	18
Companies that support us	19

The next general meeting will be:

Friday, August 15th @ 7:00 PM

We will be meeting in Room 208
In the east Red Cross Building

ORANGE COUNTY AMATEUR RADIO CLUB www.W6ZE.org



2008 Board of Directors:

President:

Willie Peloquin, N8WP (714) 318-4047 N8WP@arrl.net

Vice President:

Nicholas Haban, AF6CF (714) 693-9778 AF6CF@w6ze.org

Secretary:

Ken Konechy, W6HHC (714) 744-0217 W6HHC@w6ze.org

Treasurer:

Paul Gussow, W6GMU (714) 624-1717 W6GMU@w6ze.org

Membership:

Chris Winter, W6KFW (714) 543-6943 W6KFW@w6ze.org

Activities:

Kristin Dankert, K6PEQ (714) 544-9846 K6PEQ@scdxc.org

Publicity:

Rich Helmick, KE6WWK (714) 343-4522 **KE6WWK@arrl.net**

Technical:

Bob Eckweiler, AF6C (714) 639-5074 AF6C@w6ze.org

Member-At-Large:

Dan Dankert, N6PEQ (714) 544-9846 N6PEQ@comcast.net

Hank Welch, W6HTW (562) 697-2239

W6HTW@w6ze.org

2008 Club Appointments:

W6ZE Club License Trustee:

Bob Eckweiler, AF6C (714) 639-5074 AF6C@w6ze.org

Club Historian:

Bob Evans, WB6IXN (714) 543-9111 bobev@netzero.net

RF Editor (rotating):

Loran Dargatz, KD6LRD (714) 777-9081

DargatzLR@msn.com

WEB Master:

Ken Konechy, W6HHC (714) 744-0217 W6HHC@w6ze.org

ARRL Assistant Director:

Ken Konechy, W6HHC (714) 744-0217

W6HHC@w6ze.org

ARRL Awards Appointee:

Arnie Shatz, N6HC (714) 573-2965 N6HC@aol.com

Larry Beilin, K6VDP (714) 557-7217

K6VDP@aol.com

OCCARO Delegate:

Loran Dargatz, KD6LRD (714) 777-9081 DargatzLR@msn.com

Monthly Events:

General Meeting:

Third Friday of the month at 7:00 PM American Red Cross 601 N. Golden Circle Dr. (Near Tustin Ave. & 4th St.) Santa Ana. CA

Club Breakfast:

First Saturday of the month at 8:00 AM Jagerhaus Restaurant 2525 E. Ball Road (Ball exit off 57-Freeway) Anaheim, CA

Club Nets (Listen for W6ZE):

7.086 ± MHz CW **OCWN** Sun- 9:00 AM - 10 AM Rick KF6UEB, Net Control

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

VISIT OUR WEB SITE

http://www.w6ze.org

up-to-the-minute club information, the latest membership special rosters, 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 January 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 charge if you'd like to have your badge mailed to you.

SEPTEMBER 19th SPECIAL 7:00 EVENING EVENT



Attention Members and Friends!!!

This year is the OCARC's 75th anniversary and we are planning a special event celebration at the September general meeting.

There will be chatting, dissertations, exhibits and FOOD for everybody, so mark your calendars to make sure that you don't miss this event.

OCARC 75th Anniversary Program:

1) September Date and Place

The Reunion will take place on September 19, 2008 at the Red Cross Building

2) Caterina

Pizza and soft drinks will be served at no cost to members and visitors.

3) Dissertation from Club Historian

The club historian will prepare a speech about the club and either himself or a speaker will read it.

4) Exhibits, Old Radio Receivers, Transmitter

We will have a Transmitter/Receiver, Magazines and books from the 1933 era.

5) Teleconference w/Remote members

Members unable to attend personally will check in via Skype audio/video.

6) Time Capsule for 100th

All the Magazines, books, pictures, etc and maybe the Transmitter/Receiver from 1933 along with an attendance list and certificate will be placed in a Time Capsule to be stored at a designated place not to be opened until the 100th Anniversary party in September 2033.

All present members, and past members are invited to share an evening of nostalgia, friendship and fun.

DO NOT MISS THIS MEMORABLE OCCASION!!!



The OCARC program for the August Amateur Radio – Do We Take Too Much For Granted? Presented by Art Goddard

Neither our Constitution nor Bill of Rights create any entitlement in the Amateur Radio Service. Rather, we are expected to earn our keep, per paragraph 97.1 of the FCC Rules. So how are we doing? Ask a Ham and you'll probably hear that we're doing OK. Ask an elected official or a member of the general public and you'll likely get a blank stare. In this case, ignorance is not bliss. Government and public perceptions will continue to influence how Amateur Radio fares into the 21st century.

How could we determine the public benefit of the entire Amateur Radio Service? How would we get our story out to decision-makers and the public? Who should do it?

August's OCARC program will be conducted "Town Hall" style by Art Goddard, W6XD. Art is well known for his involvement and promotion of Amateur Radio. Licensed for 52 years, he is Past Director, ARRL Southwestern Division.

Secrets of DXpedition Doctoring ©

Arnold I. Shatz, M.D., FACS

N6HC

Ever since my first CW contact with Danny Weil, who traveled the world in his sailboat *Yasme*, the thought of going to an exotic isle to set up an amateur radio station and talk to the world intrigued me. It was only after I "retired" from active medical practice that the opportunity presented itself and I could spend six weeks away from home. But there was a proviso that was proffered with the invitation to join a full-fledged, world class Dxpedition…providing medical coverage for the team in addition to the usual activities that everyone is expected to do. I knew going to medical school had a golden lining! This was my ticket into the world of the Dxpeditioner.

How does one prepare for this responsibility? There is no hospital, pharmacy or surgical supply warehouse on a deserted island to call upon should a contingency arise. What type of medical/surgical situations could present themselves that might require my expertise? What should a Dxpedition doctor bring along to adequately deal with these situations? Here is how I decided to provide health services for my teammates.

There are many web sites available that provide guidance regarding necessary vaccinations and precautions that should be taken by visitors to various parts of the world. It is prudent to ask each team member to consult the web site and consider their own health and immunization status against the precautions defined by the experts in travel medicine. http://www.travmed.com A thorough check-up by their primary care physician and dentist prior to embarking on long distance travel should be considered mandatory. It is far better to discover a pending problem at home then trying to deal with that same problem with very limited medical resources.

As the medical officer for the trip, I ask for an outline of each team member's vital statistics, medical and surgical history, the name, dosage and frequency of administration of all medications (prescription and over-the-counter) as well as allergies to foods and medications. This information gives me some insight into what problems I may encounter with each individual and what special medications or supplies may become necessary. Each individual is responsible for bringing their own medications including their treatment of choice for motion sickness. I encourage each member to put a personal first aid kit together. This should include an extra pair of eye glasses, sun screen and sun glasses, SPF lip balm, band-aids, antibiotic ointment, insect repellant and analgesic of choice.

My medical kit contains specialized supplies that may become necessary in specific situations. Much of the contents of this kit are available only to a licensed medical practitioner. Please see Appendix #1.

Notice that there is no cardiac monitor, defibrillator, oxygen tank, Ambu bag or pulse oximeter. I am not in a position to provide advanced cardiac life support on an isolated ocean isle. Fortunately, I have not needed these supplies in the past, but there have been Dxpeditions where fatal heart attacks have occurred, e.g., Aves Island Dxpedition - April, 2006.

Each individual should have current medical insurance coverage. It is prudent to purchase evacuation insurance should an emergency situation occur and a swift exit from the island becomes mandatory. I have purchased coverage through DAN (Divers Action Network) for \$29.00/year.

On my last two Dxpeditions, I have utilized almost everything in my medical kit! Fortunately, I have not been lacking anything in my medical kit...yet. Since all my trips have included air and sea travel, I have treated motion sickness quite frequently. Prophylactic use of a "scope patch" is highly recommended because seasickness can be accompanied by nausea, vomiting, loss of appetite and dehydration. Being in that state makes you useless as a team member, once landfall is made. Recovery may take a day or two and a valuable set of hands and a strong back are lost to the team setting up the camp and equipment.

Dehydration can occur from plain hard work in the hostile environment of an exposed ocean island. It is mandatory to take frequent work breaks with water consumption, salt tablet supplements or electrolyte solutions. Proper clothing should include long sleeved shirts and pants made from lightweight and quick drying material as well as a broad brimmed hat to protect your ears, nose, lips and neck. Work gloves protect the hands from lacerations and blisters. Failure to heed this recommendation usually results in a first or second degree sun burn which can incapacitate an individual and make for a very uncomfortable and less than memorable trip. If ice is not available for topical treatment of the burn, then sedation and analgesics are the only relief available.

Gastrointestinal disorders are a common problem. The diet on a Dxpedition is usually quite different than what one's system has become accustomed. It may be quite salty due to the use of ocean fish as the main entrée. Dehydration can lead to constipation and local water, unless it is bottled, can result in traveler's diarrhea. Food and drinking water safety is key to maintaining a happy intestinal tract. This also includes hand washing prior to eating and after using the "long drop".

Marine hazards present unique opportunities for medical care. Jellyfish, ray or urchin stings can be quite painful and result in infection. Insect bites by mosquitoes, spiders, bees or ticks present their own set of nuisances. Avoid contact with dangerous marine life, wear protective, aquatic foot covering and liberally use insect repellant.

On two of the three major expeditions in which I have participated, lacerations of the extremities were sustained that required sutures. It was gratifying to both the patient and the physician that we were well prepared.

A case of earwax occluding the external auditory canal resulting in impaired hearing was one of the more unusual maladies that I have managed. A fractured ankle was probably the most serious occurrence that befell one of my teammates.

Accepting medical responsibility for twelve to twenty-four Dxpeditioners can be daunting but very satisfying, especially when you are well prepared and everything goes smoothly. I have played a part in the K7C, 3B7C and TX5C Dxpeditions. I'm looking forward to my next radio and doctoring adventure.

© Copyright 2008 Arnold I. Shatz, M.D., FACS N6HC@aol.com

No part of this article may be reproduced by any means without the written permission of the Copyright Holder.

```
DXpedition Doctoring - Appendix #1
Suture set (1) with needle driver, forceps, scissors, hemostats (2) and scalpel (#15 blade)
Suture removal set (1)
Bandage scissors (1)
Sutures: Chromic 4-0, 3-0; nylon 3-0, 2-0 (3 of each size)
Ophthalmic hand cautery (2)
Band-aids of various sizes (1 box)
Steri-strips of various sizes (multiple packs)
1% & 2% lidocaine (50cc vials)
Isopropyl alcohol (1 pint) and box of individual packets (1)
Betadine (1 pint)
Cotton balls (1 bag)
Gauze pads – Sterile – 4x4 (1 box)
Sterile cotton tips (1 box)
Adhesive tape (plastic) 1" roll (5)
Ace Bandage 2" roll (4)
Syringes:
                  20cc (3) luer-lock
          10cc (30) luer-lock
                   5cc (30) luer-lock
                   2cc (30) luer-lock
                  50cc irrigation - catheter tip (2)
Needles:
                  18G - 1 ½" (30)
          22G - 1 ½" (30)
                  25G - 1 ½" (30)
Foley urinary catheter – 16F (1)
Sterile latex gloves (10 pkgs) size 7 1/2"
Sterile Barrier sheets (box of 10)
Sterile saline bottles – 500cc (5)
Sterile water bottles - 500cc (5)
Sun Block
Insect repellant
Hand sanitizer foam or pads
K-Y jelly (3 large tubes)
Medications:
                  Transderm Scopolamine patches (25 doses)
                  Phenergan injectable – 25 mg dose (multi-dose vial)
                  Phenergan tablets – 25 mg dose (50)
                  Phenergan suppositories – 25 mg dose (10)
Benedryl tablets – 50 mg dose (25)
                  Cipro tablets - 500 mg dose (50)
                  Bactrim D-S tablets (20)
                  Ampicillin capsules - 500 mg dose (50)
                  Vibramicin – 100 mg dose (50)
                  Keflex tablets - 500 mg dose (50)
          Prednisone tablets - 5 mg dose (25)
                  Prednisone injectable multi-dose vial (1)
          Kenalog cream (5 tubes)
                  Epinephrine 1:100,000 (1 multi-dose vial)
                  Toradol injectable (2 multi-dose vials)
                  Aspirin 325 mg (200)
                  Ibuprofen 200 mg (200)
                  Tylenol 650 mg (200)
                  Vicodin
                  Neosporin ointment (2 tubes)
                  OTC "cold" medications
                  Pepto-bismol tablets (1 box of 48 tablets)
                  Lomotil tablets (50)
                  Cortisporin otic ear drops (one bottle)
                  Gentamicin ophthalmic ointment or drops
Stethoscope (1)
Blood Pressure cuff (1)
Otoscope / Ophthalmoscope
Thermometer oral strips
Air Cast
Eye patches (10)
IV starter kit with a liter of NS and D5/1/2NS with IV cannulas
```

OCARC at OC Fair Ham Radio Booth

by Ken W6HHC

Each year, the Orange County Council of Amateur Radio Organizations (OCCARO) sponsors and organizes a Ham Radio booth at the OC Fair. Each day, the Ham Radio booth is staffed by a different radio club or radio organization. This year, OCARC members provided staffing for two days of the OC Fair, Sunday July 13 and Wednesday, July 30. Below are a few pictures of OCARC members staffing the Ham Radio booth. Credit for all the photography belongs to Bob AF6C.



Fig 1 - Kristin-K6PEQ and Dan-N6PEQ staffing the afternoon shift at OC Fair.



Fig 2 – Bob-AF6C (center) and Ken-W6HHC take over staffing for the evening shift at the Ham Radio booth from Kristin-K6PEQ.



Fig 3 – An OC Fair is NOT a county fair without all the food booths...like the ChuckWagon.

Heathkit of the Month

by Bob Eckweiler, AF6C

Heathkit of the Month

The HD-1250 Solid-State Dip Meter and Its Predecessors

by Bob AF6C

The Dip Meter, known as the **Grid Dip Oscillator** (**GDO**) in the days of vacuum tubes, has always been a practical piece of test equipment for the ham who builds, tinkers or constructs antennas. With such popularity it is a product Heathkit produced in various forms over a long part of the company's existence.



The Heathkit GD-1/1A/1B Grid Dip Meter:

The first Heath Grid Meter appeared in the October 1952 Heathkit Flyer and was designated the GD-1. The GD-1 is a handheld unit that plugs into an AC wall socket. The front of the unit has a meter, a phone plug and a **SENS**itivity control with an **OFF/ON** switch. Also on the front is a scale for the capacitor which is turned by a thumb

knob that extends out of the case on each side. On the back side is a switch that selects either **OSCILLATOR** (GDO) mode or **DIODE** (absorption wave meter - **AWM**) mode.

The GD-1 was short-lived, being replace by an improved GD-1A in 1953, and then the GD-1B later that year, each offering circuit improvements. All three versions are very close in appearance and cover the same frequency range of 2 MHz to 250 MHz using five plug-in coils. Later in the production Heath offered the 341-A low frequency coil set. The set contains two additional coils to cover the lower frequencies of 350 KHz to 2 MHz. The 341-A includes a calibration chart that relies on the "Logging" scale of the GD-1 series tuning knob. In 1956 the GD-1B sold for \$19.50 (the same price as the original GD-1 cost in 1952) and the LF 341-A coil set sold for an additional \$3.00. A European version of the GD-1, the GD-1U was also produced; it was designed to run off of 220 VAC. The GD-1B remained in production until 1960, when the growth of solid-state devices necessitated a design change.

The Heathkit HM-10 Tunnel Dipper:

As a replacement for the GD-1 series, Heath came out with the HM-10 *Tunnel Dipper* in 1961, followed shortly in 1962 by the HM-10A. The *Tunnel Dipper* uses a then revolutionary new semiconductor device called the tunnel diode. This is a specially designed diode that has, over a narrow range, a negative resistance. That is, over part of the diode's range, as the current increases the voltage across the diode decreases. This phenomenon allows the diode to act as an oscillator when in the proper circuit. The tunnel diode oscillator is followed by three stages of transistor amplifiers to drive a 0–1

milliampere meter. The tunnel diode has one problem; being sensitive to temperature, it won't operate in cold temperatures below freezing.



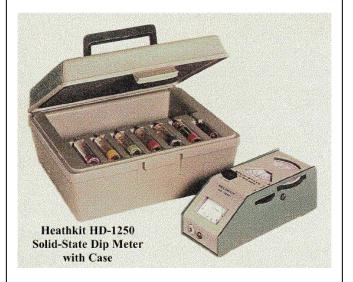
This is a minor disadvantage because the *Tunnel* Dipper runs off a single AA battery and you aren't tethered to AC power when working on outside antennas and feedlines. The HM-10A covers 3 to 260 MHz using six color-coded coils. The tuning capacitor has a large vernier drum dial offering long dial scales for reading the operating frequency. The HM-10A case is made of rugged extruded aluminum and has a snap-on cover that protects the meter and controls, and also houses the six coils. The three position slide switch selects **OFF**, **OSC**illator or **DIODE**. The DIODE position allows HM-10 to be used as an absorption wave meter utilizing the meter for indication. This is the only Heath dip meter that doesn't have a headphone jack, so you can't listen to a modulated signal. In 1961 the Tunnel Dipper mail order price was \$34.95. It disappeared from the Heathkit catalog around 1970. The HM-10A Tunnel Dipper was replaced in 1975 by the HD-1250 Solid-State Dip Meter.

The Heathkit HD-1250 Solid-State Dip Meter:

The last of the Heathkit dip meters is the HD-1250. It was manufactured from 1975 through 1991. The HD-1250 uses a Motorola MRF502 high-frequency transistor for the oscillator, and

an RCA 40673 MOSFET and two hot-carrier diodes for the detector. It has a phone jack for earphones; an item missing in from the *Tunnel Dipper*. The HD-1250 runs off a standard NEMA 1604 9-volt battery. It covers 1.6 MHz to 250 MHz utilizing seven color-coded plug-in coils. The two pound dip meter measures 2" x 2-5/16" x 5-7/8" H x W x L excluding the plug-in coil.

In the oscillator mode the oscillator transistor runs as a Colpitts oscillator using a split tuning capacitor operated by a large circular thumb knob that protrudes through a slot on each side



of the case, similar to the GD-1 series. Two plastic windows allow viewing the seven color-coded scales of the dial on the knob, corresponding to the seven coils; an eighth Logging scale is marked on the dial. A smaller **OSC**illator **LEVEL** adjusting knob also protrudes through the right side of the case. This control sets the voltage for the oscillator transistor and thus the strength of oscillation.

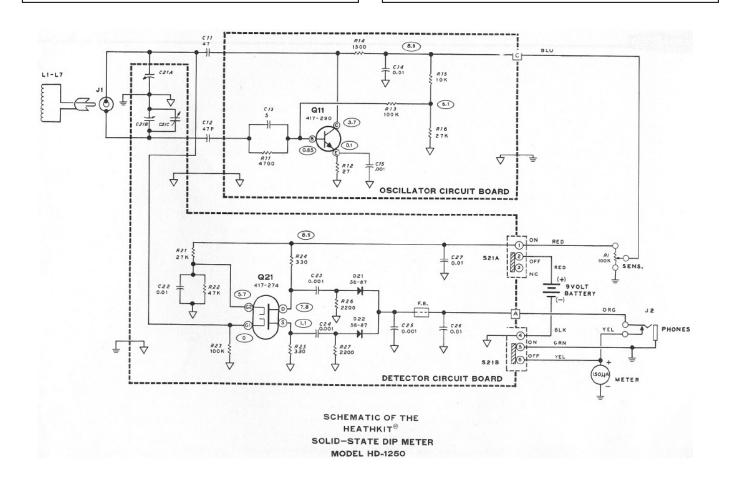
To operate the dip meter in the absorption wave meter mode you don't need to throw a switch as in the earlier units. Instead you decrease the OSC LEVEL until the meter reads zero. At that point the oscillator is not oscillating but acts as a

Q-multiplier for the tuned coil and capacitor. In both oscillator and wave mode, the MOSFET detector is directly coupled to the tuned circuit. This is practical because of the extremely high impedance of the MOSFET transistor. The detector circuit amplifies the voltage on the voltage on the tuned circuit and demodulates any AM modulation. The voltage is then fed either to the meter or to the headphone jack. When the headphones are plugged in the meter is automatically disconnected. Since the meter has a sensitive 150 µA movement, it is shorted by the ON/OFF pushbutton switch when in the position. This dampens the movement and helps prevent damage from physical shock.

The Heathkit *Solid State Dip Meter* comes with a injected plastic storage case. The case holds the GD-1250 unit and the seven plug-in coils. It also has some room for additional small accessories such as extension probe cables, and custom probes.

The manual that comes with the HD-1250 has an eleven page section on using the HD-1250 *Solid-State Dip Meter*. Even though the manual admits there are many other uses, it shows how to use the meter for quite a few measurements or applications that are useful to a ham who builds or services radios or antennas.

In 1976 the HD-1250 sold for \$59.95; by late 1989 the price had risen to \$129.95.



Bob's TechTalk #39 (RF TechTalk #71) Grid Dip Oscillators (Dip Meters)

by: Bob Eckweiler, AF6C

The Grid Dip Oscillator:

Recent discussions on the ten meter net involved the "Grid Dip Oscillator" (GDO). Of course "Grid" is an old vacuum tube element term, and almost all new meters of this type are solid-state, thus the alternate term "Dip Meter". However the acronym GDO is still often used even for the solid-state devices.

For years the GDO has been one of the handiest and most popular pieces of test equipment for hams who build transmitters, amplifiers and antennas. One reason for this is that it is a low cost device that has many practical uses, and is easy to operate.

How it works:

The GDO consists of a variable oscillator that covers a large range of frequencies using plug-in coils and a variable capacitor with a calibrated scale. The plug-in coil is external to the chassis and is the sensing device. A meter is connected so that it measures the level at which the oscillator is oscillating. This was accomplished on the original grip dip meters by measuring the grid current drawn by the oscillator tube, hence the name.

When the coil of the GDO is placed next to a tuned circuit to be measured and the GDO capacitor is tuned, the meter will dip when the GDO is tuned to the same frequency as the tuned circuit. If the coupling between the GDO and the tuned circuit is high the dip is quite broad. But once the dip is found the GDO is moved away until the dip is small and very sharp. At this point the oscillator frequency can be read on the capacitor dial. The GDO capacitor scale doesn't have very good

resolution nor accuracy, so one trick is to also listen for the oscillator signal in an accurate receiver. The tuned circuit doesn't have to be a coil and a capacitor, it can be a trap or even an element of an antenna, a length of coax, or a length of wire.

Remember the meter is measuring the strength that the oscillator is oscillating. When a nearby circuit is resonant at the same frequency as the GDO it absorbs some of the energy from the oscillator by mutual coupling, causing the oscillator to weaken.

Absorption Wave Meter Function:

Most GDOs also have an absorption wave meter function (AWM). When in this mode the oscillator is disabled and is replaced by a diode detector. If the GDO's coil is placed near an oscillating circuit and tuned to that frequency, the meter will move upscale. Many GDOs also have a jack for earphones so you can listen to a modulated signal. The wave meter function is good for detecting parasitic oscillations in transmitters and oscillators as well as determining if an oscillator is operating or is on frequency.

The GDO can also be used as a crude signal generator for troubleshooting and checking radios. With its external coil and small capacitor scale, it isn't accurate, but again the frequency can be set by using a good communications receiver; that's something most hams have in their shack today, even if it's the receiver part of a transceiver.

What a GDO Can Do:

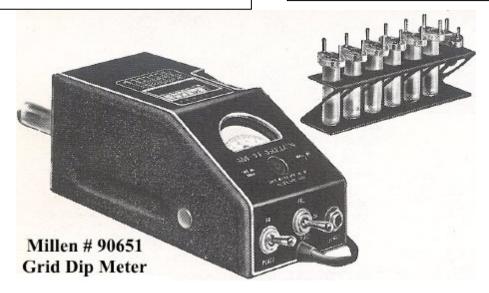
The GDO or Dip Meter can perform many tasks, here are just a few:

- 1. Receiver alignment (GDO mode): Preset tuned circuits; use as signal generator for aligning RF and (if in range) IF stages.
- 2. Transmitter adjustment: (GDO mode): Preset tuned circuits.
- 3. Transmitter Adjustment: (AWM mode): Determine frequency; peak tuned circuits; perform final stage neutralization; check for parasitic oscillations.
- 4. Adjust traps (GDO mode): Adjust series and shunt traps in transmitter and receiver circuits.
- 5. Measure LC components (GDO mode): Determine unknown values of capacitors, coils, and toroids.
- 6. Measure Q (GDO mode): Determine the relative Q of coils.
- 7. Measure Field Strength (AWM mode): Use to measure field strength in the shack and around antennas.
- 8. Feedline Measurements (GDO mode): Use to measure and adjust quarter and half-wavelength stubs and sections. Measure SWR on open line feeders.
- 9. Antenna adjustments (GDO mode): Check antenna traps; adjust element resonance; measure bandwidth. Roughly measure antenna front to back and front to side ratios.

There are a lot more uses for this inexpensive piece of test equipment.

For more information on dip meters (GDO's) look in almost any Amateur Radio Handbook going back to the forties!

Millen No. 90651 Grid Dip Meter sold in late fifties and early sixties. It covered 1.7 to 300 MC (MHz) using seven coils. Four additional VLF coils were available to cover down to 220 KC (KHz).



A HISTORY OF THE ORANGE COUNTY AMATEUR RADIO CLUB - Part 6

by Bob - WB6IXN, Club Historian

In 1966, Jack Shaw, WA6YWN, was elected president. Under his leadership and with Alex W6WRJ (later W6RE) appointed as the Convention Chairman, OCARC sponsored, along with other local radio clubs, the ARRL Southwestern Division Convention at Disneyland. (Convention Booklet in Historical Records) The editor of the club "RF" newsletter that year was Bob Evans, WB6IXN. The club had a new meeting location, the Lincoln Savings and Loan on 17th Street in Santa Ana (just across Bristol from the Santa Ana College campus).

In 1967, Jim Hill, WB6GPK, was elected president. The May meeting featured Darryl Branstetter of Pacific Telephone. He demonstrated world-wide telephone links. He telephoned G3GEW, Dave Hollander's friend in England. A montage of photos of the event, done by Jack Shaw, appears in the Historian Records. Field Day was held on Mountain View High School property at Segerstrom Ave. & Raitt St., in Santa Ana. The Club amassed 1641 contacts on 80 through 2 meters, and a total of 10,640 points. For comparison, In 1966, we had a total of 7,832 FD points.

Jack Shaw, YWN, had the Santa Ana Register photograph, Dave Hollander, W6COJ, and Bud Barkhurst, WA6VPP, in preparation for Field Day. The picture appeared in the Thursday, June 22 edition of the Register (copy in Historical Records). The Tuesday evening, Dec. 12 edition of the Register carried an article (on file) naming Billy, WB6CQR, as Emergency Coordinator for the Orange Section. The release was sent to the Register by George Hart, the ARRL Communications Manager.

In 1968, Dave Hollander, W6COJ was elected president. In the January issue of QST, our Jerry VerDuft, WA6ROF [now ADØA], was pictured (on file) with a group of ARRL leaders at the combined Pacific-Southwestern Division Convention ARPSC meeting held in Los Angeles.

Jack Shaw underwent surgery and recovered rapidly at home. John Trotter, W6BVX, brother of Shelley, W6BAM, became a Silent Key on May 27. Backing up a bit, on Feb. 10, 1968, Dave Hollander, WB6NRK [now N7RK], the son of Jack, WB6UDC [now N6UC], earned a write-up in the "Trouble Shooter" column in the OC Register, for his efforts trying to contact Manta, Ecuador, for an Orange couple. (on file, in March "RF" newsletter)

The March issue of the Garden Grove High School "Argolog" newspaper carried an article on our Keith Salyards, WB6RJX, the station custodian of GGHS Amateur Radio Station WB6WPK. Keith was involved in a message handling program for teachers and students at GGHS. (file: Apr.'68 "RF")

On Sunday, March 3, 1968, OCARC members Jerry Ver Duft, ROF; Billy Hall, CQR; Ralph Alexander, WRJ; Bill Robinson, WB6WOO; Dave Yap, WA6TSU; Roy Maxson, DEY; and Dave Hollander, COJ, along with other hams, all members of the Orange County Radio Emergency Corps, banded together to provide communications for the Heart Fund Drive. The operation was dubbed "Heart Line", and was given a write-up with photograph (in Club records) in the "Daily News Tribune" dated Thursday, March 28, 1968. The OPs were awarded a plaque for their effort. (award in Club records)

On May 19, 1968 the OCARC and the Anaheim Club sponsored a joint picnic. Members who signed the roster are listed in June 1968 "RF". Ted Glick, K6LJA, and Jack

OCARC History - cont'd

Shaw, YWN, put together a montage of pictures of the event. (copy in Club records) On the weekend of June 22-23, 1968, the Club again held Field Day at 2801 S. Raitt Street and Segerstrom, at the Mountain View H.S. site.

In Oct., 1968, Jerry VerDuft, WA6ROF, reported that the Club-sponsored message handling program at the Orange County Hospital had been discontinued due to lack of patient interest.

On June 15, 1968, a joint SCN-RN6 meeting was held at Redondo Beach concerning ARPSC. Jerry, ROF, attended and was pictured in the Sept. issue of QST. (pix also in Oct. 1968 "RF")

At the October meeting, Werner Escher, South Coast Plaza, invited OCARC to sponsor Christmas messages to overseas servicemen. The Club accepted, and Billy Hall, CQR, was nominated chairman. His steering committee consisted of: Jerry, ROF; Dave Browers, RVM; John Vaideen, W6BNX; Bruce Scholes, WA6BYY; and Mildred, W6PJU. In addition, Alex W6WRJ, Bud WA6VPP, Bill WA6WOO [now N6BR], YWN, LJA, TDO, Paul Sheridan, and TYZ, Ralph Riesmiller, also provided services...

(to be continued next month ...Bob Evans, WB6IXN, Club Historian.)

OCARC General Meeting Minutes

2008-07-18

The OCARC July General Meeting was held at the Red Cross complex in Santa Ana at 7PM on Friday evening, July 18th. There were a total of 40 members and visitors present. A quorum was present with all of the club directors attending, except Willie-N8WP (who was traveling to a new job in Boston) and Bob-AF6C.

PROGRAM:

A great program was presented by speaker by David Corsiglia – WA6TWF on:

"WA6TWF Super System"

David explained that the Super System provides users with many state-of-the-art capabilities which allow users to converse with hams all over the world. This system is especially helpful for hams who are confined with small antennas by CC&Rs. The Super System currently has five 440 MHz repeaters and provides a remote base station.

More info on the WA6TFW Super Station can be found at:

www.WA6TFW.com/



Fig 1 – David-WA6TFW demonstrates bringing up the "Super System" during the presentation.

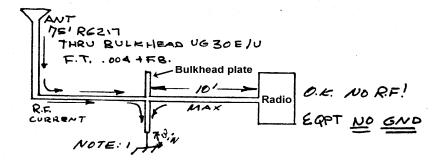
Another topic David-WA6TFW presented dealt with using a bulkhead ground plate to eliminate RF from getting back into the shack as shown in Fig 2 below.

OLD BIZ:

- Club VP Nicholas-AF6C explained that OCARC "el Presidente" Willie-N8WP had taken a new job in Boston for a few months and that the VP would act in his place while Willie was out of town.
- The Field Day was declared a success and Willie-N8WP, our FD Chairman, had reported that this was our second best FD score ever...even without any sun spots.
- Ken-W6HHC reported that a work-crew was being organized for Saturday morning, July 19, to retrieve the remaining club FD equipment (towers, etc.) from the base.

Submitted by:

Ken Konechy W6HHC OCARC Secretary



Note 1 - 3 inch long ground strap to 8 ft ground rod

Fig 2 – A Diagram of how to install a bulkhead grounding plate to eliminate RF getting back into rigs

OCARC

Board Meeting Minutes 2008-08-02

The OCARC Board meeting was held at the JagerHaus Restaurant in Anaheim at 8:15AM on Saturday, 2008-08-02. There were a total of 11 members and visitors attending. There was a quorum of directors present, with the following officers absent: Willie-N8WP (in Boston), Rich-KE6WWK, Hank-W6HTW, Chris-W6KFW, and Dan-N6PEQ.

DIRECTOR REPORTS:

- **Vice President** Nicholas AF6CF reported that the following programs are planned:
 - August is Art Goddard on Ham Radio Future
 - September is OCARC Club Reunion
 - October is OCARC Auction
 - November is Clipperton Island DXpedition
 - January is the new Digital Radio DVD
- **Secretary** Ken-W6HHC turned over an HRO invoice to the Treasurer. Ken reported the State paperwork for the corporation had been filed.
- Activities Kristin K6PEQ and Dan N6PEQ reported that the club potluck would be planned for cooler weather.
- **Technical** Bob-AF6C reported that good progress had been made with maintenance and repairs on the generator for storage.

OLD BIZ:

• RF NewsLetter "Rotating" Editors

- Aug is Loran KD6LRD
- Sept is Paul W6GMU
- October is Kristin K6PEQ
- November is Nicholas AF6CF
- December is Bob AF6C

• Field Day 2008

- The club's two aluminum towers and bases have been stored at the QTH of Larry-K6LDC in Garden Grove.
- The club generator will be stored at QTH of Rich KE6WWK. Board approved a motion to purchase a water-proof cover for storage.
- Paul W6GMU hopes to firm up his position

at OES on the JFTB base in about one month.

• OCARC Club Reunion Planning

- The club reunion of all present and past members is planned for Friday, Sept 19th.
- ???? is in charge of food.
- Bob-AF6C is in charge of old radios display.
- Ken-W6HHC is in charge of SKYPE connections to far-away members.
- The club historian, Bob-WB6IXN, will be asked to present or display some club history.
- A club time-capsule will be prepared.

• OC Fair

Kristin – K6PEQ reported that the OC Fair Ham Radio Booth was a success this year. OCARC staffed the ham booth on two days. Gerald Fullerton – KD6JBL did a fine job in his first year a Chair for the OC Fair project.

• OCARC Coffee Mugs

The club received its order for 10 coffee mugs to be used as raffle prizes and gifts for club speakers.

• OCARC On-Line Registration

Bob-AF6C will activate the online Registration form on the WEB site. The Pay-pal mechanism is not yet implemented.

• Ham Radio Camping Trip

The camping trip plans have been dropped.

NEW BIZ:

- Nicholas-AF6CF presented a short report on the recent weekend trip to the Owens Valley Radio Observatory (OVRO).
- The board confirmed that Willie-N8WP will continue to be president for the remainder of the year. Nicholas-AF6CF will act as president as required.
- Ken-W6HHC explained that it is difficult to get four people in one spot at the same time to transport the club generator. Ken will undertake a project to put the new generator on the trailer of the old generator, beginning in September.
- An updated list of the location of club assets was reviewed. [See Page 18 in this issue]

Submitted by: Ken Konechy W6HHC

Secretary

CLUB ASSETS AND THEIR LOCATION

Description	acquired	cost	where located
Generator 5 KW - Honda - on wheels	June-2000	\$1,217	Rich Helmick - KE6WWK
(old) Generator 4 KW - Briggs & Stratton - on trailer	May-1988	\$589	Ida Yamachika
FD Power Cables			Ken Konechy - W6HHC
FD Guy ropes		Donated	Dan Dankert - N6PEQ
Stakes for Guy Ropes		Donated	Ken Konechy - W6HHC
50 ft Aluminum (stack) Tower by Universal w/ Machined			
base	June-2006	\$900	Larry Hoffman - K6LDC
50 ft Aluminum (stack) Tower by Universal w/ bolted base	June-2008 August-	\$1,300	Larry Hoffman - K6LDC
4 each 10-ft. Rohn towers (rusty)	1998	Donated	Dan Dankert - N6PEQ
4 each 40-ft push-up mast (military - in boxes with guy		Donated - Note	
ropes)	March-2005	1	Nicholas Haban - AF6CF
		Donated - Note	
Military 24-ft tilt-up mast (in box with guy ropes and base)	March-2005	1	Kenan Reilly - N6CCE
24 ft vallou plactic puch up	March-2005	Donated - Note	Kan Kanaahy WGUUC
24-ft yellow plastic push-up	March-2005	Denoted	Ken Konechy - W6HHC Dan Dankert - N6PEQ
3-element Hygain 20M beam		Donated	
5-element Hygain 15M beam		Donated	Ken Konechy - W6HHC
3-element 10M beam	August-	Donated	Bud Barkhurst - WA6VPP
ARRL Flag	2002	\$53	Dan Dankert - N6PEQ
American Flag	2002	ψυυ	Dan Dankert - N6PEQ
OCARC Banner		Donated	Dan Dankert - N6PEQ
60-Cup Coffee pot		Donated	Ken Konechy - W6HHC
PA system		Donated	Cindy Hughes - KC6OPI
Wooden Podium		Donated	Dan Dankert - N6PEQ
Wooden Fouldin	January-	Donated	Dan Dankert - Nor LQ
Laminating machine	2002	\$54	Bob Eckweiler - AF6C
Corporate Seal	2002	Ψ0 .	Bob Eckweiler - AF6C
· L - · - · · · ·			

Note 1 - if this item is ever sold by OCARC, the proceeds of sale are to be given to WA6VKZ

Please support the companies who support OCARC!

Make sure to thank them for their support of the OCARC when you order from them, or when you see them at a convention!



























