



WATTS NEWS



The Best of Amateur Radio

Welcome to the OARC Newsletter

www.OgdenArc.org

February 2005

Next Club Meeting: 3rd Saturday

February 19, 2005

Topic: Vertical Antennas



Gary Liptrot N7ZI
President



Mary Hazard W7UE
Vice President



Jim Southwick N7JS
Secretary



Charles Horn KD7SS1
Treasurer



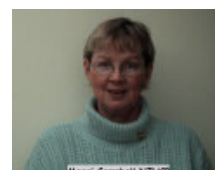
Mike Fullmer KZ7O
Director #1



James Clarke KD7SWL
Director #2



Val Campbell K7HCP
Watts News Editor



Maggi Campbell N7HCP
Club Photographer

Club Meeting

January 15, 2005

Our January meeting was one of the biggest turn-outs yet. 36 people showed up. Gary told me 37 but I'm going to go with my gut on this one. This is really encouraging to see for all of us on the board.

Editors Note: How does Gary know how many bagels to buy for each meeting anyway? He started out with 1 dozen, then 2 dozen and now 3 dozen isn't enough. Soon it will be 4 dozen already. He must be magic - you think?



Mary - W7UE and Mike - N7OYV at the bagel & juice table

The Icom-703 that the club has purchased for a raffle prize at the upcoming HamFest was on display. The club was able to procure the last one of these (discontinued HF only models) at an unbelievable price (almost 1/2 the cost they originally went for - and they weren't cheap). Thanks to Gary at the Phoenix HRO for locating this for us. This is a great little QRP (actually goes up to 10 watts) HF radio. It can easily be computer controlled if you desire. It also features a built in auto antenna tuner. One less item to haul around. If you are not into QRP, it makes a fantastic little all band - all mode - short-wave receiver. It even has provisions for an optional DSP add on board and voice synthesizer that will announce not only the freq., and mode, but the S meter reading as well. Please support us in our endeavors to provide this great little raffle prize by purchasing tickets to try to win it. As they say - it may be you. I already own

one of these, but I'm going to try my luck for 2 just because I'm a firm believe in "you can't have enough radios". If I should suffer an untimely death - please let my wife know that there are some hidden behind the boxes in the storage room. She won't be able to kill me herself when she discovers them. And please don't offer them to Gary first - (more about this latter).

We had some great giveaway prizes this



Jim S. - N7JS and Karlie Boam drawing for one of several door prizes

meeting which included a circuit board holder w/ magnifying glass, winter beanie hat, plastic wrap for organizing cables, and a soldering iron workstation. We also had a generous member Stan Sjol-WOKP donate a small TV and printer for the giveaway. Thanks Stan. If you have anything that you think might be desirable by a bunch of hams (we're a picky bunch, but we also like free) feel free to bring it for the giveaway. If you win it back again yourself - you can always give it to the next person. If they refuse to take it - there is a convenient dumpster out back.

For show and tell, I went over the portable HF station I have put together. I basically purchased a small case at Sportsman's Warehouse with the foam insert. I like to refer to it as an assassins case. I then made the cutouts for my HF radio, a battery, digital interface unit, Microphone and cables, as well as my laptop computer. I also made a portable antenna from a tripod, tapped coil and a 10-foot MFJ whip. Mike Fullmer-KZ7O had a

neat little portable antenna he made that was much more stealthier than mine (albeit less power handling capability I had to tease him) that was really an eye catcher. I was so intrigued by the portability of his antenna that I can't tell you exactly how he made it! You'll have to ask him yourself.

Gary -N7ZI talked about the complete



**Gary Liptrot - N7ZI
Club President**

ham station he picked up (stole). This was a trove of equipment that a ham was going to sell off at our meeting - but Gary just so happened to have a wad of cash burning a hole in his pocket and scooped it all up himself. So our club president is now going to have a "real" ham shack. Good job Gary (you do deserve it) - and excuse my French but - about d%\$n time! Hi hi. Let us know when we can come over and break it in. I'll show you how to load up that 520S into a TV antenna.

Our speaker was Alan Bryner - KK7UD. Alan gave us a comprehensive overview of wire antennas, DB gain factors, power ratios, etc.



**Alan Bryner - KK7UD
Guest Speaker**

This was a great topic because every one of us will probably eventually (or already have) experiment with wire antennas. Alan also had some display items for illustration purposes that were useful. I really liked the slick way he wraps electrical tape in order to be able to take it off easy at a later date. Basically run it inside out on the first run and then normal after that over the top of it. A simple concept - but those always seem to be the ones that escape you. Thanks for the presentation Alan.

Well that's about it for the wrap up at the meeting. Thanks for the big turnout and see all of you in Feb.



73 Jim Southwick - N7JS (Secretary)



**Charles KD7SST & Jim Clarke KD7SWL
(Treasurer) (Director #2)**



**Fun was had by all who attended
36 in all and growing every month**

From The OM's Shack

Gary Liptrot N7ZI



Hi folks,

I am sitting here thinking about OARC and what we are trying to accomplish this year. We are a small but talented bunch of hams with many individual expectations of what this club ought to be. It is an interesting task for the board and I to help introduce you to old and new communications technology that we can all experiment with.

I have thought a lot lately about our predecessors and why they started OARC to begin with back in 1921. What was on the minds of Dr. W.G. Garner (W7SU), Glen Quillinan, Ralph Flygare, Mr. Cook and "Chickey" Crawshaw? More and more I consider these guys when I brainstorm OARC activities. The history of OARC needs to be honored by all of us. Past club officers even went to great lengths to obtain the W7SU callsign for the club. I think that the

traditions set forth by our founders ought to be remembered as we participate in our ham activities, both public and private. These original amateur operators are the corner stones of our club and ought to be proud of how we mentor our new hams, how we courteously operate on the air and how we proudly show the logo of OARC.

Last month I quoted an excellent ham operator, DXer and good friend Kay Hargis (N7KH), "The backbone of amateur radio is HF". Other modes are not to be discounted by any means, but if you can build and operate a HF shack then you are on your way to learning how to be a well-rounded radio operator. Our club is full of all kinds of amateur radio enthusiasts. No single approach this hobby is the right way but if you want some great advice just re-read N7KH's quote and follow his lead. I believe that this club will continue to increase in numbers. It's fun to watch us grow, develop, teach and learn. If you have an idea for a meeting or an activity that you would like to see us do please tap us on the shoulder and speak your mind, please. We would love to talk with you about your ideas. Also, if any of you have an idea for an article to include in this (your) newsletter just let us know. I love hearing stories about how we as OARC members are doing in the hobby. Take care and I'll see you at the meeting.

Tnx es 73 de n7zi Gary

"Why buy something for ten bucks when you can make it for a hundred." JR

Shack Shorts

There are only 10 types of people in the world:
those who understand binary and those who don't.

Resistance is futile
(if < 1 ohm)

Biography - Treasurer

Charles Horn KD7SST



I have two years of amateur radio experience. I passed element 2 in September 2002 to earn my Technician class license. Then in November 2002 I passed element 3 the same night my daughter Michele (14 years old) passed element 2.

I passed element 1 and upgraded to General in March 2003. Also in 2003 I became a RACES operator and passed the VE exam to become an ARRL Volunteer Examiner. I completed the first two ARRL Amateur Radio Emergency Communications Courses that summer.

In June 2004 I passed element 4 and upgraded to Amateur Extra. Now I'm relearning Morse code so I can actually use CW. Mel Parkes, Utah ARRL Section Manager, appointed me the Affiliated Club Coordinator in July 2004.

73, Charles Horn KD7SST

*Next month stay tuned for another OARC Officer/Member Biography.
It could be you!!!*

Next Club meeting - February 19, 2005

The training subject for February's club meeting will be Vertical Antennas. I will be doing the instructing this time. I will try to cover some basic principles and then some practical application of what works and what does not work. Things like antenna patterns, feed point impedance's, grounds, etc will be discussed. If there is time (not much chance of this happening) I will discuss phased arrays which are an exercise in math principles. If you

have a strange vertical antenna that you have questions about, either HF or VHF, bring it or a picture of it for us to talk about it.



Mike Fullmer, KZ7O

OARC Repeater Status

The 448.600 repeater is as always just purring right along with no hiccups. It would be nice if the rest of the repeaters could just follow its example.

The 146.82 is still down. It was brought down two months ago with problems. The radio was sent to the repair shop and nothing could be found wrong with it. The cavities were returned, because they were off quite a bit. When the radio was put back together with the cavities the problems came back. The radio just does not like to be connected to the cavities! The radio is being swapped with the 146.90 radio to see if it works there. They use the same radio, just different frequencies are programmed in. So this problem repeater is still being worked on.

146.90 is still having power problems. This is a 100% solar powered system. The repeater itself is fine, it is the solar system that is having problems. The batteries are dying and there is not enough solar panels to keep the poor batteries charged. But this is all being fixed. Additional solar panels and new batteries are being purchased. When all the

new stuff comes in there will need to be a work party to install it all. This may involve pouring small cement foundation mounts for the additional panels.

448.575 is operational at KZ7Os house. It is normally at the 146.90 site but was taken down to install a new smart controller that will have an auto patch. The repeater and new controller are operating well but will not go back to its home until the solar system is fixed. The new controller speaks instead of just CW IDs. It will be able to tell us the battery voltage, solar charge current, the inside temperature of the building and the outside temperature. The autopatch works but is to have limited use because it on KZ7Os home phone.



Mike Fullmer, KZ7O
OARC Repeater Engineer

Other News

Hams, Rose Parade, Part Ways

For the first time in four decades, amateur radio will not be providing communications for the annual Tournament of Roses Parade in Pasadena, California. The New Year's Day fixture has used amateur radio voice communications since the mid-1960s and amateur television since 1968, according to Newsline. Reports of a dispute between parade officials and members of the Tournament of Roses Radio Association were initially published in the *Pasadena Star* newspaper.

Apparently, the disagreement involved the planned use of Nextel phones by parade officials. Nextel is a corporate sponsor of the event. It was unclear at press time whether Nextel, parade management, or the hams themselves were responsible for the dispute that led to the breakup of the 40-year informal association between the parade and ham radio.

CQ - January 2005

Upcoming Events

The 2005 VHF Society Swapmeet to be held on Saturday, the 26th of February 2005

It's been nearly a year since the last one, and there's still enough time for you to consolidate all of that extra junk to just one or two rooms in your house to get ready to take it to the **VHF Society Swapmeet**.

Like last year, the 2005 swapmeet will take place on a Saturday, in the Zion building at the **Utah State Fairpark**. The date is **February 26** and the doors will open to the general

public at **8 AM** - perhaps a bit earlier if you are grabbing a table to sell something...

As in the past, entry is free if you are a UVHFS member - and only a small charge if you aren't.

For more information about the Utah VHF Society Swapmeet, where it is, a map of the fairgrounds go to

<http://www.ussc.com/~uvhfs/>.

NORTHERN UTAH HAMFEST

Sponsored By
The Ogden Amateur Radio Club (OARC)

Location: Browning Armory, 625 E. 5300 S., South Ogden

Date: Saturday April 23, 2005

Start Time: 8:00 AM



Raffle

Grand Prize Icom IC-703 HF Radio

(Must be present to win)

Hourly door prizes

\$5 Entrance Donation \$10 Family (\$6/\$12 at the door) – includes a ticket for all door prizes

Grand Prize Raffle Tickets: \$3 per ticket or two for \$5

Vendor Tables \$3

See www.ogdenarc.org for updates

Seminars and Venders galore

FEATURE ARTICLE

FAA ON HF

(ARINC off shore Airline Tracking)

By Earle Sanders NT7Y



Earle Sanders - NT7Y

Within the United States the Federal Aviation Administration has established a fairly complex network of radar systems, VHF & UHF communications and computer interface. This is a system with which I have worked for my entire FAA career. More recent improvements have only enhanced the operation of this system.

Because of the "line of sight" characteristics of both radar and VHF/UHF communication, aircraft which enter or exit the U.S. are without these valuable tools for much of their journey. An aircraft leaving San Francisco for Honolulu would be provided regular radar and VHF service only to that point where the radar and radios cover (approximately 150 miles off the coast). That leaves approximately 2,000 miles where the aircraft is without radar or VHF /UHF communications.

The International Civil Aviation Organization (ICAO) has, by the common consent of individual countries, established procedures by which aircraft are controlled while in international airspace. A system of airways has been established from the West Coast to Hawaii and other Pacific destinations. These airways parallel each other with 50 nautical mile lateral spacing between them. The routes have also been designed with waypoints or intersections used for determining aircraft positions along the different routes. This is extremely important due to the lack of radar coverage and the need-to-know where aircraft are. With modern inertial navigation or GPS systems on board it is extremely easy for an

airplane to navigate precisely on these airways.

Of interest to us as ham operators is that these aircraft each have two separate SSB transceivers that are used to communicate with powerful shore based radio stations on HF. An international company, ARINC, has the contract to provide communications with the aircraft in international airspace. Using specially allocated

HF frequencies ARINC is in contact continually with participating aircraft. At times when I am "sitting in the shack" working on logs, computer, etc I find it very interesting to tune my receiver to an ARINC frequency and listen to the conversations that take place between the ARINC station and the many aircraft on frequency.

This is always a challenge to listen and form a mental picture of which aircraft are present and where they are. I often keep a written log on scratch paper showing the different airlines and flights being heard. Occasionally military aircraft or general aviation aircraft are heard also.

For us in the western part of the USA the ARINC station in San Francisco (SFC) is extremely easy to find on a general coverage radio. Oddly enough this station uses a radio call sign of "San Francisco Radio" and depending upon propagation will use several different frequencies. Most often you will find San Francisco Radio on 11.282 MHz (USB) or 5.547 MHz (LSB). Take a listen, it is absolutely fascinating.

At first you will think the voices are conversing in secret code. Not so! They are using a short hand to convey information to each other. To help you "Break" the code here are some things to help.

1. All time is in UTC 24-hour clock form.
2. All aircraft use individual call signs. For

example, Delta Airline flight #462 would use "Delta 462" as it's radio call.

3. Each of the airway intersections has a five letter name; for Example, EDSEL

4. An Aircraft's assigned altitude is reported as Flight Level. Example, ,FL330 (roughly 33,000 feet)

5. Other things that are reported are helpful items to know. Temperature in centigrade, wind direction and velocity.

6. Fuel remaining

7. General comments such as turbulence.

You might hear our Delta 462 flight as follows.

"San Francisco, Delta 462 position on 11"

(Interpreted: The Delta flight 462 wishes to give a position report on 11.282.)

Next.." Delta 462, This is San Francisco, go ahead."

Next.."Delta 462 was by EDSEL 24 at FL330, estimating MAGI at 59. Temp -44 wind 310/85. Fuel 24.8 occasional light turbulence."

(Interpreted: Delta 462 was by EDSEL intersection 24 past the current hour (UTC) and is estimating MAGI intersection at 59

(same hour also UTC) we are at flight level 330 and the temperature is -44 degree centigrade and the wind is from 310 degrees at 85 knots. Fuel remaining is 24.800 Lbs. We are experiencing light turbulence.)

You will find an interesting mix of US airlines, foreign airlines, military and general aviation airplanes. I have had several exciting experiences while listening. At one point a smaller Piper light plane was being ferried from the West Coast to Hawaii. Because of the limitation for the Piper to fly at low altitude ARINC had lost contact with the plane and was worried that he had "ditched". They were finally able to contact the small aircraft by relaying messages through aircraft flying at high altitudes above the small plane. Other experiences overheard were refueling operations where air force f16's met an aerial tanker and refueled their aircraft before proceeding on. There have been numerous emergencies, weather problems, etc and you feel like you are on the front row seat to events happening right then over the Pacific Ocean.

TRY LISTENING ON 11.282 (USB) OR 5.547 (LSB) AND YOU WILL BE AMAZED AT WHAT YOU HEAR.

Editors Note: Val Campbell - K7HCP

Frequencies in Mhz (all USB).

I have confirmed the following additional channels as ARINC SFC frequencies in use today. Use the higher Freqs during daylight hours and the lower Freqs after sunset. They tend to use the Freqs in-between from late-morning thru late-afternoon.

02.869

03.413

05.547

05.574

06.640

06.673

08.843

10.057

11.282

13.282 ARINC Wx

13.288

13.300

13.348

13.354

17.946

21.925

SFC serves all trans-pacific flights from US West Coast to Hawaii, Australia, Japan and Asia.

While living in North Carolina I logged 3 other east coast ARINC stations: Gander NFL, NYC and Miami serving flights to Europe, W. Africa and the Caribbean respectfully. If you would like to have specific frequency information about them please contact me directly.

Announcements

Next Club Meeting: 3rd Saturday February 19, 2005

- Each meeting of the Ogden Amateur Radio Club is held on the 3rd Saturday of each month.
- Time: 9:00 AM (snack provided)
- Location:

Health Department Building Auditorium
2570 Grant Ave Ogden Utah

This is on the corner of 26th and Grant west of Washington Blvd, NE corner of the street.

Enter through the East door on the North end of the building (parking lot side).

Parking is located on the North and East side of the building.

Talk in on 146.82- (123.0) <<down.
>> temp alternate 146.90- (123.0).

- Meeting Topics:
 - Vertical Antennas
 - basic principles
 - practical application

Check Oarc web page for details

www.ogdenarc.org

- Please invite a friend to join you. You do not have to be a member of the club to participate in our club meetings or activities. We invite all to join us.
- If anyone is interested in doing a presentation on something or just have something unique to show at the meetings. - Please get a hold of any of the officers and let us know.

Next Weber Co VE Test Session April 23, 2005

- Exam sessions are held in Ogden every few months, *usually* the first Wednesday in February, June, and October.
- Time: 08:00 am Walk-ins allowed
- Location:

Northern Utah Hamfest
Browning Armory
625 E 5300 S
South Ogden, Utah

Contact: Mary Hazard @ 801-430-0306

- Cost: \$14.00

Those seeking a ham license should bring two forms of ID, one of which must be a picture ID. Those seeking an upgrade should also bring a copy of their current license, any CSCE, and a picture ID.

Most calculators are allowed.

Club Web Site

Be sure to visit our club web site.

- www.OgdenARC.org

Club membership is open to anyone interested in Amateur Radio. You do not need an amateur license to join us. Dues are used to operate the club, field day activities, and repeater equipment maintenance.

You do not need to join the club to participate with us.

Club Call Sign

Listen to the club repeaters for this very familiar CW ID. You do know Morse Code don't you?

- **W7SU**

ARRL Field Day is held on the last full weekend of June every year.

Location may vary each year so watch this notice for details as time draws near.

See you there.

OARC REPEATERS			
FREQ	CLUB	TONE	LOCATION
146.820-	OARC	123.0	Mt Ogden
448.600-	OARC	123.0	Mt Ogden
146.900-	OARC	123.0	Little Mtn (auto patch)
448.575-	OARC	100.0	Little Mtn

OTHER AREA REPEATERS			
FREQ	CLUB	TONE	LOCATION
146.620-	UARC	none	Farnsworth Pk
449.100-	UARC	146.2	Farnsworth Pk
147.040+	DCARC	123.0	Antelope Isl
447.200-	DCARC	127.3	Antelope Isl
449.925-	DCARC	100.0	No Salt Lake
145.290-	UBET	123.0	Brigham City
145.430-	UBET	123.0	Thiokol
448.300-	UBET	123.0	Thiokol
146.640-	BARC	none	Logan
146.720-	BARC	103.5	Mt Logan
147.260+	BARC	103.5	Promontory Pt
449.625-	BARC	103.5	Mt Logan
145.250-	WSU	123.0	* coming soon
449.250-	WSU	123.0	* coming soon
145.490-	RACES	123.0	Promontory Pt
146.920-	N7top	123.0	Promontory Pt
449.775-	N7top	123.0	Promontory Pt

AREA CLUB MEETINGS & WEB SITES

CLUB	WEB SITE	DATE/TIME	LOCATION
OARC	ogdenarc.org	3 rd Saturday 9:00 am	Health Dept Bld Auditorium 2570 Grant Ave Ogden Utah
WC ARES		3 rd Saturday 11:00 am	Weber Co. Sheriff Complex West 12 th Street Ogden Utah
WsuArc	arcweber.edu	3 rd Thursday 5:30 pm	WSU Blding #4 Room ? Ogden Utah
Barc	barconline.org	2 nd Saturday 10:00 am	Cache Co. Sheriffs Complex 200 North 1400 West Logan Ut
Ubet	27meg.co/k7ub	2 nd Tuesday 7:00 pm	BE-Thiokol Old Intermountain Indian School Brigham City Utah
Dcarc	dcarc.net	2 nd Saturday 10:00 am	Davis Co. Sheriff Complex Farmington Utah
Uarc	xmission.com /~uarc/	1 st Thursday 7:30 pm	UofU EMC Bldg Room 101 Salt Lake City Utah
UvhfS	ussc.com /~uvhfs/	Each Tuesday 8:00 pm (refer to web site)	Weekly 2 meter net (no eye ball meetings)

LOCAL AREA NETS

DATE	CLUB	FREQ
Daily @ 12:30 PM mst	Utah Beehive net HF	7.272 Mhz - HF
Daily @ 7:00 PM mst	Utah Farm net HF	3.937 Mhz - HF
Tuesday @ 6:30 PM	Weber ARES	448.600 - 123.0
Tuesday @ 8:00 PM	VHF Society	147.120 + 100.0
Tuesday @ 9:00 PM	Bridgerland ARC	147.260 + 103.5
Wednesday @ 8:00 PM	UBET ARC	145.290-,145.430-, 448.300 (all 123.0)
Wednesday @ 8:30 PM	CSERG	145.770 - simplex
Wednesday @ 9:00 PM	No Utah 10m net	28.313 Mhz
Thursday @ 7:00 PM	Davis ARES	147.420 = simplex
Thursday @ 8:00 PM	Weber State ARC	146.820 - 123.0
Sunday @ 7:30 PM	UBET ARC	145.430 - 123.0 (training net)
Sunday @ 9:00 PM	Morgan	147.060 = simplex
Sunday @ 9:00 PM	UARC Info net	146.62 – no PL tone required
Thursday @ 8:00PM	RACES State VHF	145.490 - 123.0, 146.680 – 123.0 3 rd Thursday - even months only
Saturday @ 8:00AM mst	RACES State HF	3.918 Mhz - HF 3 rd Saturday – odd months only

OARC OFFICERS

President: [Gary Liptrot N7ZI](#)
Vice Pres: [Mary Hazard W7UE](#)
Secretary: [Jim Southwick K7JS](#)
Treasurer: [Charles Horn KD7SST](#)

Director #1: [Mike Fullmer KZ7O](#)
Director #2: [Jim Clarke KD7SWL](#)

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