

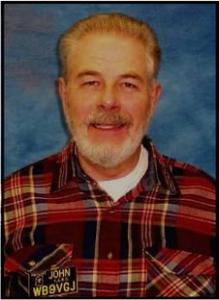


# YAVAPAI SIGNAL



The Yavapai Amateur Radio Club • Prescott, Arizona • DM-34 • Volume 21 – No. 5 • May 2006

## From the President's Desk



As I'm preparing for an out-of-town trip, this will be a shorter column. It is looking like 2006 is shaping up as a busy year for the club. Early indications are we'll be having a booth at the county fair in conjunction with

VVARA, a first for both clubs, I believe. This will be an excellent way to help publicize the hobby and the clubs. We were told we'd be invited back for the Prescott Valley World Arts Festival this year. We set up a booth for the first time at the festival last Sep. 17<sup>th</sup> and 18<sup>th</sup>, so it looks like Sep. will be a busy month. With our increased public service and public relations events, the demand for members to participate keeps growing. These events are interesting and fun. The initial signup at the April meeting for working the county fair booth was very encouraging. If everyone who is able pitches in a little, no one has to overextend him/herself.

On the downside, it is a shame we couldn't get any volunteers to head up committees for a club picnic, which several members showed interest in, or for working on hav-

ing the club participate in local parades. Perhaps in the future someone will be interested in handling those jobs.

There is still a need for a net control station for the weekly club net for the months of May and July. I've asked Joe, AC6AA, to solicit a volunteer for May on the weekly nets in April. I would encourage any member who has not yet served as net control to give serious consideration to doing so. I'm hopeful that when I return from my trip at the end of April that we have a net control station for May. It would also be nice to have one for August, also.

It is very satisfying to see the club getting more exposure and to see Jim, N5RO, having more success with getting newspapers and radio stations to consider publishing and broadcasting more articles and public service announcements. Jack, W7JLC, has been very active in working to talk about and demonstrate amateur radio also. I applaud them and anyone who has helped them. Their efforts can do nothing but help our club.

73, John, WB9VGJ

## Welcome to the Yavapai Amateur Radio Club

The Yavapai Amateur Radio Club (YARC) is an ARRL affiliated Special Service Club. The club participates in many activities in the tri-city area by providing communications for local events, emergency communications, and promotion of the hobby throughout the community.

Membership in the YARC is open to any interested amateur or non-amateur alike. Dues are \$20.00/year. The YARC meets at 7:00 p.m. local time on the first Thursday of every month in the Technology Room 404, at the Granite Mountain Middle School, 1800 Williamson Valley Road in Prescott. It is about 1/2 mile north of Iron Springs road, and all amateurs and non-amateurs as well are invited. Programs of interest are included as part of the meeting.

The weekly Net is held every Wednesday at 7:00 p.m. local time on 146.880- repeater. All amateurs are invited to participate, and visitors are always welcome.

The Yavapai County ARES/RACES Net is held on Monday nights approximately at 7:00 p.m. local time on the 145.290- repeater on Mingus Mountain. A PL of 127.3 is required.

### Club Repeater

The local 146.880- repeater is the official adopted repeater for the YARC. It is located on the hill above Willow Creek road and requires a PL of 100.0 Hz. If you hear a 1400 Hz pulsing tone, the repeater is on backup battery power and usage should be limited to necessary communications. Many thanks to Bill Kafka, W2YAV ■

## Inside This Issue ...

Meeting Minutes .....	Page 2, 3	CQ DX and DX Convention...	Page 7
This Month's Featured Ham ...	Page 4	Nothing First-Personal,	
Amateur Radio Statistics .....	Page 4	Good Buddies .....	Page 8
Treasurer's Report .....	Page 5	HT Battery Discharge Circuit...	Page 9
VE Test Session.....	Page 5	Nat'l Electric Safety Month....	Page 10
ARES/RACES/Public Service.....	Page 6	Node Talk .....	Page 11

## Minutes of April 6, 2006 Board Meeting



A Board meeting was held at 1815 on April 6, 2006. Present were John, WB9VGJ; Pat, K7DUC; Dave, K6UWV; Dick, W6CCD; Richard, KE7DTR; Rex, N7NGM, Ken, WA6AQK, and Walter, KF6SPS.

- The Board agreed to purchase two large (4'x 4') "When All Else Fails" banners from ARRL. The one for YARC will be kept by Terry, KB7TRE, and the other will be kept with the ARES/RACES van for display.

- Jim, N5RO thought that we should adopt a school, as published on page 6 of the April Yavapai Signal. The Board agreed and selected Granite Mountain Middle School as the school to adopt. We would encourage the promotion of ham radio at the school.

- It is noted that the Maxon SM-2450 commercial radio was donated by Dck, W6CCD for the IRLP node.

- A notice of our April meeting is listed on the local community calendar under <http://www.prescottcity.com/calendar.html>. John is waiting for a response from the person responsible for the City of Prescott Website. After both sites are settled, John will turn them over to Jim, N5RO, as our community relations member.

- John received an e-mail from VVARA President Bob, KC8BOB, stating that their Board had no objection to the UHF/VHF FM Simplex Contest on May 7th. We can use their repeater at 147.22 for initial contacts. Any amateur should be eligible for the Contest.

- VVARA is interested in participating in a County Fair Booth, and feel that cooperation between the two clubs will be mutually advantageous.

- The County Fair will be held between 9/22 - 9/25. Discussion will be held at the General Meeting to find volunteers and answer questions that need to be asked of Doug, KV8TD.

- We hope to have people sign up to be Elmers. We need new hams to be able to find an elmer to answer their questions. Neil, KA7JAS will be asked to be in charge and be able to direct new hams to people that can be of help.

- A committee will be formed to assist widows and their family sell items of interest to hams. Rex, N7NGM expressed concern that members without e-mail addresses were not getting the information regarding sales by family members. Rex will be in charge of this committee.

- We received a letter from Jefferson Amateur Radio Club in Southeast Louisiana. Many things were lost, during Katrina, including equipment and buildings. They were very active during the hurricane, and are asking for assistance in rebuilding. The request will be taken up at the General Meeting for consideration.

- Rex is still working on the pre-hamfest event at the library. He will get back to us on requirements.

The meeting adjourned at 1855.

Respectfully,

Pat, K7DUC — Secretary ■

## Minutes of April 6, 2006 General Meeting

John, WB9VGJ called the meeting to order at 1900. The Pledge of Allegiance was recited and members introduced themselves.

**Visitors:** Jim Portzer, KD6SUI; Vi Hughes; Tony Jackson, KI6AHH and Marty Goyette, KF6BTU.

**New Members:** Tom Griswold, N6LSA and Ken Henson, KE7GVX, were voted in by the membership.

**Meeting Minutes:** A motion to approve the Board minutes of March 2, 2006 was made by Ken, WA6AQK and seconded by Jack, KE7FMD. A motion to approve the General meeting minutes was made by Terry, KB7TRE and seconded by Bob, WB6ODR. Both were unanimously approved by membership.

### YARC Officers for 2006

President	Vice President
John Broughton, WB9VGJ wb9vgj@arrl.org	Dick Hughes, W6CCD w6ccd@arrl.net
Secretary	Treasurer
Pat Oliver, K7DUC joliver@commspeed.net	David Passell, K6UWV davidrex@northlink.com
YARC Board of Directors (includes Club Officers)	
Rex Mauldin – N7NGM	
Ken Severance – WA6AQK	
Richard Bozeat – KE7DTR	
Walter Schumann – KF6SPS	
<b>Newsletter Editor:</b> Joe Oliver, AC6AA	

### Membership Count:



1st Thurs. in March ...96  
Gain/Loss.....+2  
1st Thurs. in April.... 98



### Need a Helping Hand?

Get assistance from a Club member on any Ham Radio related subject.

Contact **Neil Vince, KA7JAS** at:  
(928) 775-2158 or [ka7jas@arrl.net](mailto:ka7jas@arrl.net)

**Treasurer's Report:** David, K6UWV reported a balance of \$3473.98. The report was approved after a motion by Terry, KB7TRE and a second by Lloyd, WA6ZZJ.

### Committee Reports:

- **ARES/RACES/Public Service Events:** Lloyd, WA6ZZJ reported that Mary, AB7NK and he participated in a tabletop exercise at the forest service fire center. The scenario was all telephones were out in the tri-city area. Evacuations were necessary. More exercises are planned for April 7 and 8.

- **Whiskey Row Marathon:** Is in need of a couple people. Coverage is good in general.

- **Newsletter:** Joe, AC6AA thanked all who contributed, and indicated that the newsletter had expanded to 12 pages. He thanked those downloading the newsletter, as it is a financial savings.
- **IRLP:** Jack, W7JLC said that the IRLP was doing well. Some mix up occurred between repeaters and is being rectified.
- **Public Information:** Jim, N5RO could not be present, but his e-mail was read by John, WB9VGJ. "Hello Campaign spots are now on some local stations. The membership is asked to report if they hear them. The boy scouts are working on their badges and visited Granite Mountain Middle School (GMMS) to observe IRLP. Today's paper had an article reporting that some students at GMMS technology club had received their licenses."
- **Patches/Shirts/Badges:** Dave, K6UWV has club patches for \$3.00 and Dick, W6CCD has club shirts for \$19 without a name, and Bob, WB6ODR has badges for \$5.75.
- **License Class:** Bob, WB6ODR reported that 7 students are in the class. He indicated that practice tests are available on-line. Monday, April 10th is the last class and testing will be April 15 at 8:00 A.M.
- **FM Simplex Contest:** John, WB9VGJ reported that the contest will be on Sunday, May 7, from 2PM-4PM on 2 meters and 70 cm. Certificates will be given to winners. VVARA repeater on 147.22 will be available for contacts if desired.
- **Booth at County Fair:** Doug, KV8TD passed around a sign-up sheet. 96 ham hours are needed to man the booth. VVARA will work with us on this project. Doug had club QSL card samples that he passed around.

- **Pre-Field Day Event:** Rex, N7NGM has been working with a representative from the Mall, for a pre-field day event to be held on June 17th. This event is usually held at the Prescott Library, but the library has been relocated, temporarily to the Mall.

#### Old Business:

- **Net Control for 2006:** We still need people to sign up for May and July.
- **Local Parades:** If interested, please let John, WB9VGJ know.
- **Club Picnic:** No one has volunteered to work on it, so we will not have a picnic.

#### New Business:

- **"When all Else Fails" Banner:** We will order 2ea. 4'x4' banners from ARRL - one for the club and the other for ARES/RACES.
- **Adopt a School:** The Board would like to adopt GMMS. Terry, KB7TRE, will advise us on some ways to help.
- **Local Event Calendar Listings:** John stated that the [www.prescottcity.com](http://www.prescottcity.com) website now contains information about club meetings on their calendar.
- **Elmer Sign-up Sheet:** In the newsletter, there was an elmer sign-up sheet. John encouraged anyone with expertise in an area of ham radio to sign up to help others. Neil, KA7JAS was asked to be the contact person for inquiries.
- **Committee for Equipment Sales:** Rex, N7NGM is going to form a committee to address the needs of widows and family members.

#### Announcements:

- **Jefferson Amateur Radio Club:** Located in Louisiana, has requested monetary help to rebuild and duplicate their facility and replace what was lost during Katrina. Discussion was held, and any action deferred.

● **BPL Trial:** has ended in Cottonwood. The next trial will be in Phoenix.

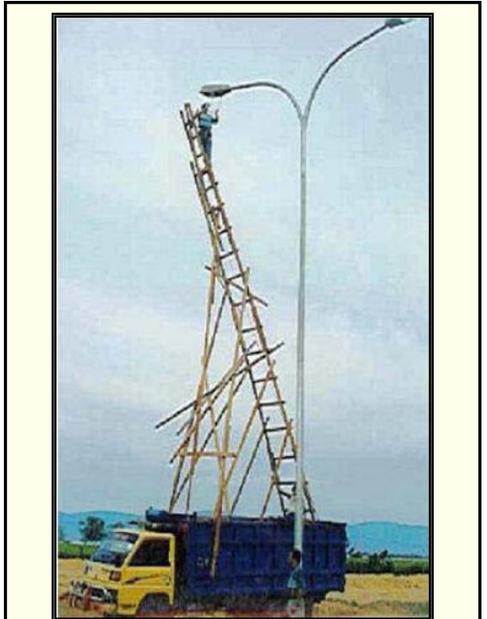
- **VE Testing:** will be held April 15th at 8:00AM.
- **Balloon Flight:** Jack, W7JLC stated that 60-80 students from all over the State will be involved in tracking balloons launched on April 22.
- **Grounding:** Lee, KC7CBK, has an informative manual on "grounding" that he will loan to members.
- **Tonight's Program:** John, WB9VGJ will give a PowerPoint presentation on "The 7th Area QSO Party".

A motion to adjourn the business portion of the meeting at 2000 was made by Terry, KB7TRE and seconded by Lloyd, WA6ZZJ. The motion carried.

The 50/50 drawing was held, and Rex, N7NGM won \$26.

Respectfully submitted,

Pat, K7DUC, Secretary ■



Established tower rigging companies should take note of this alternative rigging technology. Note the excellent electrical resistance that protects the tower climber, unless it rains, and provided the climber lives to recount the experience. ■

## This Month's Featured Ham

By Pat, K7DUC



Bob Rosevear, WB7RRQ

May's featured ham is Bob Rosevear, WB7RRQ. Bob keeps busy with ham radio, computer, ATV adventures and taking fun pictures.

Bob received his first license in 1975. He was inspired by a motorcycling ham friend with a radio on which he used the auto patch when on trips.

Bob was a teacher in Phoenix for 30 years prior to retiring. His principal would not allow him to do anything with ham radio at the school. Being a teacher, he also had several side jobs in order to make ends meet. The job he most enjoyed was doing jeep tours in Colorado. He was able to use his radio on that job.

On retiring, he and Judy moved to Prescott. Judy went to work at Granite Mountain Middle School, and introduced Bob to Terry, KB7TRE. Bob then became more active, and Judy became KC7MTY.

Bob is a member in both YARC and VVARA, active in ARES/RACES, Whiskey Row Marathon, Field Day, March of Dimes Walkathon, and Prescott Forest Rally. Lest we forget, he also organized the post-holiday dinner at Pete's Restaurant. He also runs the sound board for the Prescott Valley Town Council.

Bob currently works only on 2 meters, but was on 10 meters in the past.

Bob's most memorable contact was in New Zealand. He had brought along his hand-held radio on a trip there. While there, he worked a ham who was the Minister of Employment. He took him to a ham meeting, where Bob was the center of attraction.

Bob has built mostly antennas, and took a class in which he learned to build a power supply.

He works strictly phone, and does appear regularly on the Knobby Knee net.

He currently has five 2 meter base mobile radios, three hand held transceivers, and his Quad is set up to accept his battery pack.

Bob goes out on his Quad at least once a week with ham friends and uses a mobile unit on the trip.

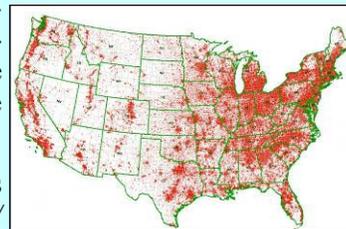
He feels YARC is doing well, but would like to see more young people in the club.

Bob is a very active, busy, and talented member of our club, and we are fortunate to have him. ■

## Amateur Radio Statistics

Here are some figures derived from the FCC database that show trends in the Amateur Radio Service (ARS).

The following data appears on QRZ.com, (<http://tinyurl.com/k75ry>), and is reprinted with George, K3UD's permission:



Where hams are located in U.S.

### Total number of USA Licensed Amateurs by Class:

	As of May 14, 2000	As of March 30, 2006	
Novice:	49,329	25,719	(-47.87%) (-23,610)
Tech+ :	334,254	318,984	(-4.58%) (-15,270)
General:	112,677	133,846	(+18.78%) (+21,169)
Advanced:	99,782	72,910	(-26.93%) (-26,872)
Extra:	78,750	107,760	(+36.83) (+29,010)
Total All Classes:	<b>674,792</b>	<b>659,219</b>	<b>(-2.30%) (-15,573)</b>

### U.S. Population and Number of Hams at the start of each Decade from 1930:

Year	Population	# Hams	Growth Rate
1930	123,202,624	19,000	
1940	132,164,569	56,000	194%
1950	151,325,798	87,000	55%
1960	179,323,175	230,000	164%
1970	203,211,926	263,918	15%
1980	226,545,805	393,353	49%
1990	248,709,873	502,677	28%
2000	281,421,906	682,240	36%
2006	296,400,000	659,219	-3.4%

The 2006 number was as of March 30, 2006.

The number of ARS licensees peaked in April 2003, and has declined since. Currently, 1 out of 450 Americans is a ham.

For comprehensive FCC Amateur Radio Statistics, refer to Joe Speroni, AH0A's website at <http://www.ahoa.org> ■



## YARC Treasurer's Report for April 2006

By David Passell, K6UWV Treasurer

### INCOME

New Members (see applications for additional information)

Tom Griswold	N6LSA	04//07	04/06/06	cash	20.00
Ken Henson	KE7GVX	04//07	04/06/06	cash	20.00

### Renewals (Update Roster)

Lee Cunningham	KC7CBK	03//07	03/08/06	7482	20.00
Ramon Fobes	W1OTH	02//07	03/12/06	2143	20.00
Tom Gregory	W2JKG	05//07	04/06/06	762	20.00
William Kafka	W2YAV	01//07	03/13/06	5117	20.00
Douglas Nicholson	KB6TWC	02//07	03/10/06	cash	20.00

### ARRL Renewals

Tom Gregory	W2JKG		04/06/06		36.00
-------------	-------	--	----------	--	-------

### Other

50/50 drawing	52 tickets		04/06/06	cash	52.00
Ken Henson	T-Shirt (not marked)		04/06/06	cash	16.00
Joe Oliver	T-Shirt		04/06/06	3496	21.00
Anon	3 Patch		04/06/06	cash	9.00
Joe Oliver	1 Patch		04/06/06	3496	3.00

**Total Income**.....\$277.00

### EXPENSES

Rex Mauldin	50/50 winner		04/06/06	cash	26.00
AZ Corp. Comm.	Tax Filing Fee		04/06/06	859	10.00
David Passell	Coffee, drinks, and cookies		04/06/06	860	18.84
Seabury and Smith			04/06/06	861	352.00
Liability Insurance			04/06/06	862	3.25
Dick Hughes	T-Shirt lettering		04/06/06	863	39.82
Joe Oliver	Stamps		04/06/06	864	34.00
ARRL	Tom Gregory		04/08/06	865	30.06
Insty-Print	40 Newsletters		04/06/08	866	92.00
Joe/Pat Oliver	2 Banners				

**Total Expenses** .....\$605.97

**Cash Flow (Income - Expenses)**..... (\$-328.97)

<b>Deposits</b>	03/28/06	.....\$ 80.00
	06/11/06	.....171.00

**Total Deposits**.....\$251.00

**PREVIOUS REPORTED CHECKBOOK BALANCE**.....\$3473.98

**CURRENT CHECKBOOK BALANCE**.....\$3145.01

## VE Test Session on April 15, 2006

Mary, AB7NK reported a very successful testing session. Six passed the Technician exam, one was issued a CSCE (still needs the code) for General, and one was grandfathered to General Class. When some missed passing by 1 or 2 questions, it was decided that they be given an opportunity for a retest in 2 weeks.

VE Testing for all license classes will be held April 29th at the Masonic Lodge, 1028 Willow Creek, Prescott, AZ at 10:00 a.m.

## For Sale



### Yaesu FT-1000D

with

Yaesu SP-5 Matching Speaker with Phone Patch.

Yaesu MD-1 Dynamic Desk Microphone.

Yaesu MH-1B8 Hand Microphone.

**\$1900** (10% will be donated to YARC)

Equipment can be tested and operated on-line with a 48 hour notice.

**Call Oscar Green, AB7YR at (928) 778-3914.**

It is not the critic that counts, not the person who points out how the strong person stumbled or when the doer of deeds could have done them better. The credit belongs to the one who is actually in the arena; whose face is marked by dust and sweat and blood; who strives valiantly, who errs and often comes up short again and again; who knows the great enthusiasm in a worthy cause; who at the best knows in the end the triumph of high achievement, and who at worst, if they fail at least fail while daring greatly; so that their place shall never be with those cold and timid souls who know neither victory nor defeat.

**Theodore Roosevelt**

*Submitted by Dick Hughes, W6CCD*

## Program Speakers



**May:** "My Stealth Antenna and some Transmission Line Considerations", by Ray, N6MY

**June:** "FISTS CW Club", By Bob, WA7YUL



By Lloyd, WA6ZZJ

### April 7, 2006 Wildland Fire Exercise

ARES/RACES participated in a multi-agency wildland fire exercise on Friday, April 7<sup>th</sup>. The scenario was a large fire burning south of Prescott in the Groom Creek area. The fire had been burning for 5 days, but had suddenly changed course and was burning toward the Pinehurst sub-division area. Evacuations were called for.

The Yavapai County EOC was activated and ARES/RACES personnel called in to operate the radio room.

The EOC radio room was operational at 11:05 with AB7NK and KJ7SJ operating. The telephone alert plan was put into effect and a resource net was started on the 145.290 MHz Mingus Mountain Repeater to build a list of available ARES/RACES members. Resource Net Control was run by Mel, N6BDC, with Doug, KV8TD, as alternate. 13 members checked in as available. The ARES/RACES CommVan was dispatched to the Fire Base Camp set up at Prescott Pines Camp. KC7CBK, W6CCD and KE7DTZ staffed the CommVan. At 12:36 the Red Cross requested two operators to staff their radio room. KB6AH and KF6SPS were assigned to the Red Cross.

Both written and tactical messages were passed between the County EOC, CommVan and Red Cross locations. The exercise was terminated at 15:16 when the scenario called for a shift in the winds and all outlying fire and law enforcement personnel were called back to the Fire Base Camp.

I want to thank all of the ARES/RACES members that took the time to participate in the exercise either by checking in to the resource net and being assigned or on standby at their homes. We attempted to run this operation just as we would an actual activation to give members an insight as to how it would be done. The more we practice, the more we become familiar with different aspects of ARES/RACES operation.

Lessons were learned as to where we did good and where we have areas that need improvement. That is why 'no exercise is ever a failure'. We learn and improve.

### ARES/RACES Needs You!!

During emergencies or natural disasters, demands on local communications systems increase dramatically as disaster response agencies swing into action to deal with the emergency and the general public trying to locate family and



ARES/RACES CommVan at the Fire Base Camp

Photo by Dick, W6CCD

friends. Most communications systems are built to handle 'normal' everyday traffic and quickly become overloaded due to heavier emergency traffic. Cell phones become overloaded almost immediately and are quickly followed by the telephone system. Other forms of communications will also become overloaded, including public safety systems and repeaters.

The aftermath of hurricanes Katrina and Rita as well as recent tornados in the Midwest have shown how valuable Amateur Radio communications can be. In many cases it is the only means of communications until other means are brought online.

Yavapai County ARES/RACES is becoming involved in more areas and with more agencies all the time. Even with over 70 current members countywide our resources will soon be spread very thin.

You don't have to devote a lot of time to ARES/RACES, or spend every weekend in training. You only have to dedicate as much spare time as you want to public service. If you are interested in becoming part of this important community service, please check into our ARES/RACES net which meets every Monday on 145.290- MHz (PL 127.3) at 1900 hours MST. You can also visit our website at [www.k7yca.org](http://www.k7yca.org) for more information. Emergency communications is one very important aspect of Amateur Radio.

### Whiskey Row Marathon

The 28<sup>th</sup> Annual Whiskey Row Marathon will be taking place on Saturday, May 6<sup>th</sup>. We could still use a couple of more operators. Your last chance to sign up and participate will be at the May 4<sup>th</sup> YARC meeting. Our participation in this event is a very important asset to the Prescott YMCA who sponsors the Marathon. The Yavapai Amateur Radio Club is considered a major sponsor because of it.

Public service communications like the Marathon are also an excellent means of testing and improving our emergency communications skills. Dust off your handheld radio, charge the batteries, and plan to participate. ■

## CQ DX de YARC – MAY 2006

By Dick Diddams, W7QHE

DATE		DXCC ENTITY	CALL	QSL VIA	REPORTED BY	INFORMATION	<p style="text-align: center;">- - - MONTHLY HIGHLIGHTS - - -</p> <p style="text-align: center; color: red;">NORFOLK IS. – V19 (xVK9 and P29)</p>
START	END						
Now	10 Jun	Senegal	6W	HA Buro	HA3AUI 20060213	Focus on 20 & 17m, SSB; some PSK RTTY; direct QSL also OK	<p>Norfolk Island was first settled by East Polynesian seafarers, probably from the Kermadec Islands north of New Zealand. They arrived in the fourteenth or fifteenth century, and survived for several generations before disappearing. Their main village site has been excavated at Emily Bay, and they also left behind stone tools, rats, and banana trees as evidence of their sojourn. The final fate of these early settlers remains a mystery.</p> <p>The first European known to have sighted the island was Captain James Cook, in 1774, on his second voyage to the South Pacific on HMS <i>Resolution</i>. He named it after the wife of the premier peer of Britain, Edward Howard, 9th Duke of Norfolk (1685-1777). Cook went ashore on Tuesday 11 October 1774, and was impressed with the tall straight trees and flax-like plants. He took samples back to England and reported on their potential uses for the Royal Navy. At the time, Britain was heavily dependent on flax (for sails) and hemp (for ropes) from the shores of the Baltic Sea ports. Any threat to their supply endangered Britain's sea power. She also relied on timbers from New England for mainmasts, and these were not supplied after the American War of Independence. The alternative source of Norfolk Island for these supplies is argued by some historians, notably Geoffrey Blainey in <i>The Tyranny of Distance</i>, as being a major reason for the founding of the convict settlement of New South Wales by the First Fleet in 1788.</p> <p>Two British attempts at establishing the island as a penal colony (1788-1814 and 1825-55) were ultimately abandoned. In 1856, Pitcairn Islanders, descendants of the Bounty mutineers and their Tahitian companions, resettled the island.</p>
Now	8 May	Malawi	7Q7HB	G0IAS Direct	OPDX 20060213	Active in digital modes this trip; length of stay may be longer	
Now	10 Jun	Guinea Bissau	J5UAP	HA3AUI Direct	HA3AUI 20060306	By HA3AUI; 20-10m; SSB	
Now	13 May	Mauritius	3B8	ON4LAC	425DXN 20060211	fm AF-049; 80-10m; SSB RTTY PSK31	
Now	31 May	Liberia 100/100	EL2PM	E15IF	W3LPL 20060402	By E15IF	
Now	31 Jul	Congo 74/100	9Q	ON7KEC	425DXN 20060311	Spare time operation; begin and end dates are estimates	
Now	19 May	Somalia 52/100	6O0N	PA7FM	425DXN 20060408	By PA5M; mainly CW; 100w; wires	
2006 May05	2006 May13	Lord Howe Island	VK9LNO	N6NO	N6NO 20060308	By N6NO; 80-10m; mainly CW; 100w; wires	
2006 May05	2006 May20	St Pierre & Miquelon	FP	DJ2VO	DJ2VO 20060303	By DJ2VO fm Miquelon; 80-10m; CW only; 100w; vertical	
2006 May06	2006 May10	St Martin	FS	LotW	OPDX 20060123	As FS/SM7DKF fm NA-105; HF; QSL also OK via SM7DKF direct	
2006 May10	2006 May20	St Martin	FJ	LotW	OPDX 20060123	As FJ/SM7DKF fm St Barth-elyemy (NA-146, DIFO FJ-001)	
2006 May19	2006 Nov25	Haiti	HH	PS7EB	PY2HS 20060405	All HF bands; CW SSB + digital; multiband vertical	
2006 May15	2006 May21	American Samoa	AH8	W9EYE	W9EYE 20060313	By W9EYE fm Pago Pago; HF; SSB; spare time operation	
2006 May25	2006 Jun20	Norfolk Island	V19NI	ODXG	OPDX 20060227	160-6m; CW SSB RTTY; QSL OK via Buro or direct: ODXG	

## International DX Convention Visalia, CA

By Joe, AC6AA

Sponsored by the Southern California DX Club, the 57th International DX Convention was a large success. Approximately 700 attended this event, which started Friday, April 21st and ended on Sunday, April 23rd. Hams from Germany, Japan, Italy, New Zealand, Austria, Brazil, England, Tonga and other parts of the world attended, as well as DXers from around the United States.

This was an opportunity to meet old and new friends that you have talked to over the air. Also time to enjoy many scheduled activities, such as a golf tournament, FOC dinner, IOTA dinner, Contester's dinner, DX Forum, Contest Forum, Showcase of new products, many seminars, and lots of prizes for lucky winners.

One of our club members, Jim Zimmerman, N6KZ hosted the IOTA dinner, and spent four hours checking QSL cards for DXCC.

The Banquet and Awards Dinner featured programs were: 13 year old Extra Class YL DXer Rebekah Dorff, WG4Y and "The 3Y0X DXperience" by Bob Aliphin, K4UEE. Both were enjoyable. Rebekah was licensed when 10 years old, and currently participates in a wide variety of school, community, and ham radio activities -- truly a model for young hams. The 3Y0X presentation, showing the difficulties and challenges of operating on Peter I island, was outstanding.

The Convention concluded with a DX Breakfast, which included entertainment, final prize drawings, and another outstanding presentation: "The K7C Dxpediton to Kure Island", by Bob Schmieder, KK6EK.

Next year's event has been scheduled for April 27-29, 2007 at Visalia, CA, to be presented by the Northern Calif. DX Club. ■



**Hams from other countries attending the Convention**

# Nothing First-Personal, Good Buddies

*Intelligent Design - NOT*

By Rod Newkirk, VA3ZBB/W9BRD

The 27-MHz Citizens Band's golden anniversary is at hand. Celebrations are expected to be muted. Veteran Hams display an inbred antipathy toward CBers, an attitude interpreted by the latter as excessive arrogance. True, Hams are licensed to delve more seriously into the wireless art. But why would we necessarily disparage the activities of other less dedicated communications? After all, FCC dictates class distinction within Amateur Radio itself. The negative mindset goes much deeper than mere haughtiness, and with cause.

When diathermy was discarded as medical therapy in the late 1940s, its 11-meter spectrum allocation (for inadvertent radiation) was inherited by Hams. Relaxed standards made the band special fun. For one thing, MCW was permitted. A fully modulated Morse kilowatt could produce the most power output legally possible in the Amateur service. Those mammoth signals were glorious. However, with the adjacent 10-meter band jumping with easy DX, 11 never really attracted much of a following.

In the mid- '50s Washington decided to make available a simple short-range QRP service to the public for general use. The lightly used 27-MHz Ham band was reallocated for same; no great loss to our hobby and barely noticed. Basic CB regulations stipulated channelized AM, five watts maximum, no homemade haywire, antenna size restricted. Licenses were issued with cumbersome callsigns until the FCC's administrative load rapidly grew too big to handle. The concept looked like a winner. Except that the ivory tower engineers neglected to factor in the ionosphere.

DX: Limited only by multilayers of skip QRM, propagation often enabled coast-to-coast contacts via handhelds. At the same time, Ham flea markets were a growing source of powerful AM transmitters rendered useless by TVI. Oscillator crystal replacement was the only conversion required. One such leaky monster showed up in a Chicago suburb

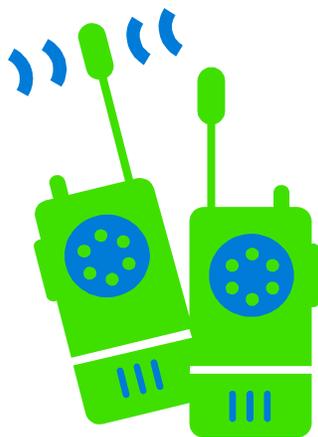
near W9BRD. Until the clown was run out of the neighborhood, Hams were blamed for his interference. FCC was totally swamped by complaints from an angry populace who comprehended no difference between Amateur Radio and CB.

Unlike our comparatively disciplined Amateur Bands, there was no 27-MHz self-policing tradition. Also, no cyberspace to help siphon off crazies. Ham publications occasionally ran Pollyanna editorials on how the CB service would be a steppingstone toward Amateur licenses. Yet it was obvious that the misused Citizen's Band was permanently derailing potential Hams. The raucous bubble ballooned to the point that vehicles were coming out of Detroit CB-equipped. Channel 19 was supposed to be an emergency assistance frequency. Lots of luck, good buddy.

This abused institution did have its humorous side. Remember the big hit song, *Convoy*? Ham Radio jargon is strange enough, but CB developed doggerel quite wondrous to behold. W9BRD had an erudite neighbor whose speech and grammar were normally impeccable. When he climbed into his CB-installed Cadillac he switched to a southern drawl filled with colorful expletives and his self-assigned ID—Nature Boy. It was like quiet Clark Kent donning his Superman suit.

The Citizen's Band is still loaded with hardcore devotees, especially truckers and others who make their living on the road. Used properly, it's an extremely valuable resource. Now most of its former irresponsible lunatic fringe has upgraded, or downgraded, to digital on-line anonymity. Nature Boy probably is doing spammed porn. ■

Copyright © 2006. Reprinted with permission of the *K9YA Telegraph* e-Zine <http://www.k9ya.org>



***"Lots of luck, good buddy"***

# HT Battery Discharger Circuit

Reprinted with Permission From  
**Rich, KR7W**

At our ham radio QTH, we have two Icom Handy-Talkies – IC W32 and an IC T7H, hers and his. These HTs use the same batteries (three of them)... which are charged in a Batteries of America BC-601d charger cup system.

After a while I started to notice that the batteries did not power the HTs for as long as they used to. The Icom HT powers itself off when the battery voltage gets to a predetermined value. One thing led to another and I noticed that the HT shut down battery voltage is not at 100 percent of the battery's capacity. I also found out that Ni-Cad batteries will develop a memory effect after a while. The memory effect happens when the battery is not fully discharged and then is recharged. Let's say that I put my battery in the charger at 40 percent discharged- the HTs shut down point. The charger will charge it back up quickly... and let's say I repeat the 40 percent charging routine a few times. The Ni-Cad battery will now act dead at 40 percent discharge and the remaining 60 percent is unusable.

The cure to defeating the Ni-Cad memory effect is to completely discharge the battery and recharge it from Zero percent. My battery charger does not have a discharge system built in... so I developed this circuit to completely discharge the HT batteries. Two 14 volt incandescent lamps are connected across the battery... which discharges my 9.6 or 7.2 volt batteries by operating the SPDT switch.

switch. When the switch is in the C to A position... the charger circuitry is not connected to the battery, but the two lamps are. The lamps will completely discharge the battery after an hour or so. Added Bonus: When the lamps are discharging the battery... the assembly can be used as a flashlight.

When the switch is in the C to B position... the lamps are disconnected from the battery while the charger circuitry is connected to the batteries.

Your HT battery charger probably is not exactly like mine... but the circuitry should be about the same. All parts to modify my battery charger cup came from Radio Shack.

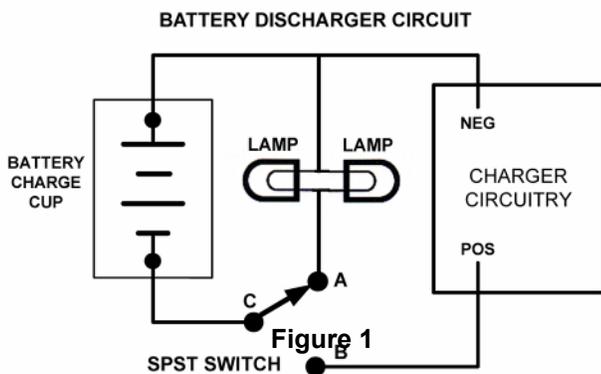
## Parts List:

SPST Switch: RS 275-625

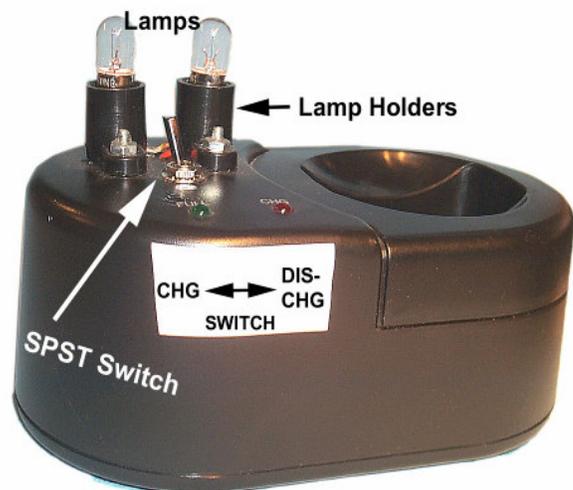
(2) E10 Lamp Holders: RS 272-356

(2) E10 14 volt lamps: RS 272-1127 for 100 MA. Or, RS 272-1134 for 200 milliamp lamps.

**Figure 2** shows a photo of how I laid out the add-on components on my charger system.



The schematic shows the additions I made to the charger's cup. I added the two lamps and the SPST



**FIGURE 2 - BATTERY CHARGER CUP WITH DISCHARGE CIRCUIT**

# May is National Electrical Safety Month

By Joe, AC6AA

*Electricity kills nearly 400 people and injures thousands more each year. Most of these deaths and injuries could be avoided with a greater awareness of electrical safety.*

## Electric Shock Severity

When we think of an electric shock, we often relate it to high voltage, i.e., 10,000 volts would be more deadly than 100 volts. This is not necessarily the case, since electric current forced through the body is the most important factor determining the severity of a shock. This current is, in turn, determined by the amount of voltage between two points on a body,

divided by the electrical resistance offered by the body between the two points ( $I = E/R$ ). The resistance of the human body varies so widely that it is impossible to always state that one voltage is dangerous and another is safe.

Trying to establish guidelines for electrical safety becomes difficult, because a voltage which produces only a mild, tingling effect under one circumstance, can be a lethal shock hazard under other conditions. Body resistance is not a fixed quantity. It varies from person-to-person and depends upon the points of contact and

the skin condition (moist or dry). Contact with a live conductor made by a sweaty hand offers less resistance to current than contact made by clean, dry skin. Sweaty skin with contact made on a gold ring can produce a body resistance as low as 1000 ohms. Current passing from a finger to an elbow may produce a painful shock, but that same current passing from hand to hand, or from hand to foot may well be fatal.

Figure 1 values show the physiological effects of various ac and dc currents, and are only *approximate*. Note that the voltage required to produce a shock-current is much less when the body resistance between the points of contact is lower.

Alternating current is said to be four to five times more dangerous than direct current, and 60 Hz current is more dangerous than higher frequency current. Under certain conditions it is believed that an across-the-chest current of only 17 milliamps AC can induce ventricular fibrillation on a human.

Any voltage above 30 volts is generally considered to be capable of delivering dangerous shock currents. Lower voltages still can be dangerous, even if they are too low to cause direct injury. The voltage may be enough to startle a person, causing him/her to jerk back and contact some other hazard.

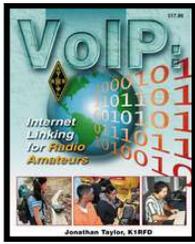
**Fig. 1 - Shock Physiological Effects**

D.C. Voltage required to produce the current with assumed body resistance:

<b>Bodily Effect</b>	<b>Direct Current (DC)</b>	<b>60 Hz AC</b>	<b>100K Ω</b>	<b>1000 Ω</b>
Slight Sensation felt at hand	1.0 mA	0.4 mA	100 V	1 V
Threshold of	5.2 mA	1.1 mA	500 V	5 V
Painful, unable to	76 mA	16 mA	7600 V	76 V
Severe pain,	90 mA	23 mA	9,000 V	90 V
Possible heart Fibrillation after 3 Seconds	500 mA	100 mA	50,000 V	500 V

## A Few Safety Precautions

- Have a healthy respect for all voltage — follow safety procedures when working on electrical equipment.
- Never assume that a circuit is at zero potential, even if the power is switched off. After power is removed and disconnected, use a “shorting stick” to ground all exposed conductors. Make certain electrolytics and other large capacitors are fully discharged before working on a circuit.
- Keep one hand in your pocket or behind you when you are making measurements or while working on high-voltage circuits.
- Avoid wearing rings, watchbands, necklaces, bracelets, and other metal jewelry that provides an excellent electrical contact with your body.
- Use insulated tools, gloves, and boots, and stand or sit on insulating material for best protection against shock from a live circuit.
- Never work on 120/240 Vac electrical wiring with the conductors energized. Check the circuit with an ac voltmeter each time you begin work to be sure that the circuit is dead.
- Use Ground Fault Circuit Interrupters (GFCIs) when working with cord and plug connected hand-held tools or other equipment. GFCIs are electrical safety devices that trip electrical circuits when they detect ground faults or leakage. Installing GFCIs in every home and workplace could prevent 70% of the approximately 400 electrocutions that occur each year. ■



## Node Talk

By Rex Mauldin/N7NGM

### When Disaster Strikes

Most of us, if not all of us, have friends and/or family in other States we would be concerned about when a disaster strikes. Those of you reading this month's column might be planning a trip to some other location and be there when a disaster strikes. In both instances, you may need or want an alternate means to communicate. Since band conditions are sometimes not good enough to use and phone lines might not be available either, it is good to know that an alternate means of communication is available. Not that IRLP or Echo link can be relied upon, but their presence does increase your chances of communicating to some other location.

When disaster strikes, as it will, knowing whom to contact will be helpful in offering assistance in some manner. As an example, with the next hurricane season coming up, knowing ahead of time what stations to listen for and contact might be extremely helpful. Stations located in Puerto Rico such as KP4FAX, (203839) or WP3BC, (207053), could be helpful in reporting weather conditions from their point of view. Also, stations in Florida, such as AC4XQ, (24265) of South Florida could be extremely helpful.

If an off-shore earthquake should occur off the Washington coast, thus creating a possible tsunami, it might be good to know of stations in the area such as K7NWS, (106642) or AJ7SA, (167656) among others, who might be able to report local conditions that could affect the inland bay not far from Seattle. Not to mention that Seattle itself is prone to earthquakes as well as volcanic activity.

Of the Echo link listings, I have found a couple of ARES listings that seem to always be present, which are KC4YNB, (287023) of Eastman Georgia and another one listed as Seminole, K1KWG, (135287). Speaking of Georgia, there is the station KD4YDC, (251687) which is the home of Skywarn for the area. They could be a model for others to follow such as our own Skywarn group that operates on 147.26 on Monday evenings, offering weather reports and other information as needed.

I have included the Echo link node number as a reference for those interested enough to set up your own Echo link station. With IRLP, the node number, station call sign and location is posted on the website and therefore I didn't feel the need to post the stations using IRLP as they are more easily found via the internet.

As I am at the end of this month's allotted space for my article, I will leave the subject of reflectors for another time. In the meanwhile, give some thought about setting up your own Echo link station from your home, which can be linked

to a radio so that you could operate within the vicinity of your own home. As to what equipment to use and how to set it up, I will offer suggestions on this in the future as well. ■

## Equipment For Sale

**Butternut HF5B compact butterfly beam.** Five popular bands in a single, lightweight 2-element beam antenna. Light enough to turn with a TV rotor. Antenna comes with instruction and assembly manual., 35 ft. slip pole and Radio Shack Archerotor with cables and controller. Needs guide wire for pole.

**Asking \$100 or make offer.**

**Arrow Model 146-4/3 element Back Pack beam for 2 meters.**

**\$10 or make offer.**

**Autek RF Analyst** for testing antenna match. Range is 160 meters up to 10 meters.

**Asking \$60.**

Prices are reasonable and open to offers. Bargaining is permitted and encouraged.

Owner is scaling down his activities. If interested in these items, contact **Dale Leslie, N7XXFD** at **445-3804** or by e-mail at [daljerles@webtv.net](mailto:daljerles@webtv.net).

Dale listens to the Knobby Knee net every morning and can be contacted via radio.

Reprinted with permission from N0UJR



Larry finds out that leaving your HT on at night, can be annoying when the repeater IDs.

## Weekly Breakfasts



### **Tues. & Thurs. Morning Breakfast – 7:00 a.m. at Michael’s Restaurant**

*(In the Safeway Shopping Ctr.,  
Hwy 69 Prescott Valley)  
(N 34°35'13.33" W112°19'44.6")\**  
*Informal – all are invited.*

### **Wed. Morning Breakfasts:**

**7:00 a.m. at**

**Iron Horse Restaurant**  
*(Hwy 89 in Chino Valley)  
(N 34°43'56.5" W112°27'15.4")\**  
*informal – all are invited*

**8:00 a.m.**

**Masonic Lodge**  
*(1280 Willow Creek Road,  
2<sup>nd</sup> Floor, above Bank of America)  
informal – all are invited*

\* Location data (per WGS84) provided  
by Fred Zimmermann, N7PJN

## Area Repeaters

Frequency	PL	Location	Owner/Club	Auto-Patch	Rem. BaseOr Linked	Vo IP	Notes:
52.560-	100.0	Mt. Union	N7NGM				-500KHz Offset
53.040-	None	Prescott Airport	WB7BYV				-1MHz Offset
145.290-	127.3	Mingus Mtn.	ARES/RACES				
146.780-	91.5	Williams Mtn.	BWARC			IRLP	
146.880-	100.0	Prescott	W2YAV/YARC				
146.980-	162.2	Flagstaff	CARC				
147.000+	162.2	Mingus Mtn	MMRG				
147.040+	100.0	Prescott Heights	W2YAV				
147.140+	162.2	Flagstaff/-Mt. Elden	ARA		Linked to Mt. Ord 147.360-		
147.220+	162.2	Mingus Mtn	VVARA				
147.260+	103.5	Mt. Union	ARES/RACES				
442.150+	100.0	Mingus Mtn	W10Q/Northlink				
442.350+	100.0	Glassford Hill	N7KPU			IRLP	
448.475-	100.0	Flagstaff-Elden	ARA	Yes			
448.500-	100.0	Prescott	KB6TWC	Yes	RB to White Tank 146.940		E-mail owner for instructions
448.875-	100.0	Flagstaff-Elden	Northlink		Linked		
449.175-	100.0	Towers Moun- tain	Northlink		Linked		
449.675-	88.50	Prescott Airport	WB7BYV		Linked to P Mtn. 927.3875		
927.3875-	151.4	Prescott	WB7BYV	Yes	Yes	Echo	Be Nice

### **Y.A.R.C. IRLP NODE**

**Node Number 3182**

**442.350+ MHz with a  
PL of 100.0 Hz**

For more Repeater Information & Listings refer to:

- [www.w7ara.org/Web/](http://www.w7ara.org/Web/)
- [www.azrepeaters.net](http://www.azrepeaters.net)
- [www.azfreqcoord.org/listings.htm](http://www.azfreqcoord.org/listings.htm)

## YAVAPAI AMATEUR RADIO CLUB

**P.O. BOX 11994**

**PRESCOTT, AZ 86304**

Visit us on the web at <http://www.w7yrc.org>

Many thanks to Bob Smith, WB6ODR, our Webmaster

