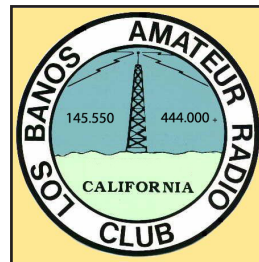




Los Banos Amateur Radio Club

The Frequency



May 2007 Meeting

Our next meeting will be held May 12th at the Police Annex Building located at 525 "J" Street. It will probably include detailed planning for Field Day and the Los Banos Centennial.



Club Members and Their Spouses Enjoyed the Very Gracious Hospitality of Paul and Christine Davis for a Barbecue at their Home on April 21st. More pictures: Page 2&3

The LBARC Net

Day: Thursday
Time: 7:30PM, local time
Freq: 147.210+ (PL123.0)
444.000+ (PL123.0)

Scheduled hosts:

May - KE6UCX
Jun - AD6AA
July - W6YD

Coming Events

May 12th.....Centennial
Jun 9th.....Club Meeting
Jun 23, 24....ARRL Field Day
Jul 14th.....Club Meeting

**AE6ZG Barbeque
Pictures - Pages 2&3**

**NCDXF/IARU
HF Beacon Project
Pages 4&5**

Membership in the Los Banos Amateur Radio Club is open to all radio amateurs.
Annual dues are \$10 and are due the first of each year.

The Frequency is published monthly by the Los Banos Amateur Radio Club and is sent to all club members. Short contributed articles are encouraged and should be sent to the editor, George Allan, W6YD at 719 Ruddy Ct, Los Banos, CA 93635 or via e-mail to w6yd@aol.com. Unless otherwise noted, the Los Banos Amateur Radio Club grants permission to reprint any article from this publication -- provided credit is given to both *The Frequency* and the article's author.

The Frequency

Pictures of Barbecue at AE6ZG's House

The Gang Enjoying the Barbecue

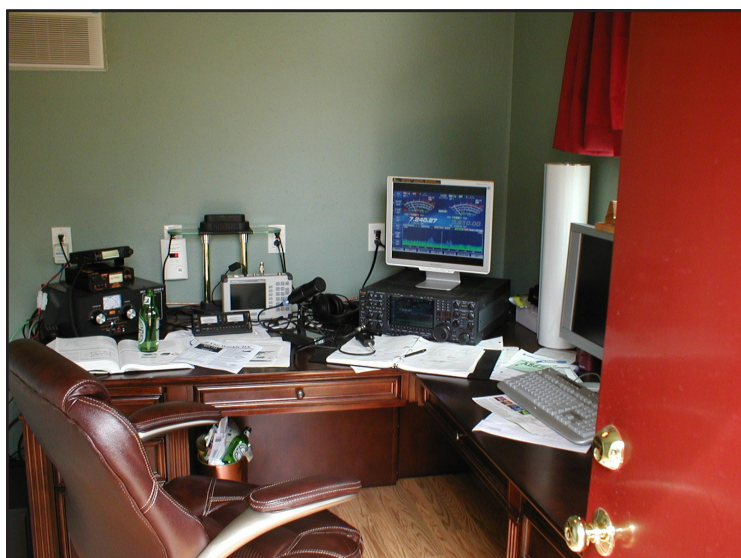


Our Hosts, Paul and Christine Davis

Christine's Parents



AE6ZG's Operating Conditions



The NCDXF/IARU HF Beacon Project

An interesting topic came up at our April meeting. The topic under discussion was the International Beacon Project which is used to check propagation to all (well, many) spots on the globe. No one in attendance was really sure of how many beacon stations there are and just precisely where they are located. The purpose of this article is to answer those questions and to expand on both the frequencies they operate on and how they're all coordinated.

As shown on Figure 1, there are currently eighteen (18) beacon stations located around in the U.S and around the World. Their actual locations and call signs can be seen in the figure.

Figure 1



These stations are operated in the U.S. by the Northern California DX Foundation (NCDXF) and outside the U.S. in conjunction with the International Amateur Radio Union (IARU) on frequencies of 14.100, 18.110, 21.150, 24.930 and 28.200 MHz. In order to keep everything straight, they transmit at designated times within a three minute interval. These times are shown below in Table 1. By referring to the table and listening for the beacon signals (or lack thereof) one can get a pretty fair idea of whether predictions for Minimum Usable Frequency (MUF), obtained by calculation, actually hold true. Many times they don't. As an example, if you hear a signal from a specific beacon station, yet you don't hear anyone operating from that particular region, it could simply mean that everyone there is asleep or busy doing something else. Conversely, if you don't hear a beacon signal from a specific location, it's a pretty good bet that you could call CQ to that area until you're blue in face and not raise a peep from anyone.

So, what if you don't want to sit and monitor the beacons to find out what's happening on the bands? Well, you'll be happy to learn that there is a plethora of software programs that will do that for you. And, you can find them on the NCDXF website. The exact URL is www.ncdxf.org/beacon/BeaconPrograms.html. Some are more complex than others. The more sophisticated programs will not only evaluate the beacon signals, they will automatically tune your rig to the IARU/NCDXF beacon frequencies on 20, 17, 15, 12, and 10 meters. All you do is start the application and walk away.

The key to automatic beacon monitoring is, of course, timing. The beacons transmit at precise times and for precise intervals. Any variations between your computer's time clock and the world time standards that govern the intervals and time slots, would throw thing way off. The software depends on time slots to identify the transmitting stations, since CW decoding software is notoriously unreliable.

Fortunately, you can synchronize your computer with internet time standards. Windows XP has this capability built-in. Click on the CONTROL PANEL, then on DATE AND TIME. Click the INTERNET TIME tab and you'll have the option to set up your PC for automatic time synchronization. You'll also have the choice to do an immediate update by clicking on the UPDATE NOW button, but you do have to be connected to the internet for that to happen.

The Frequency

Call		Location	14.100	18.110	21.150	24.930	28.200	Operator	Status
4U1UN		United Nations	00:00	00:10	00:20	00:30	00:40	UNRC	OK
VE8AT		Canada	00:10	00:20	00:30	00:40	00:50	RAC/NARC	OK ¹
W6WX		United States	00:20	00:30	00:40	00:50	01:00	NCDXF	OK
KH6WO		Hawaii	00:30	00:40	00:50	01:00	01:10	KH6BYU	OK ³
ZL6B		New Zealand	00:40	00:50	01:00	01:10	01:20	NZART	OK
VK6RBP		Australia	00:50	01:00	01:10	01:20	01:30	WIA	OK
JA2IGY		Japan	01:00	01:10	01:20	01:30	01:40	JARL	OK
RR9O		Russia	01:10	01:20	01:30	01:40	01:50	SRR	OK
VR2B		Hong Kong	01:20	01:30	01:40	01:50	02:00	HARTS	OK ⁵
4S7B		Sri Lanka	01:30	01:40	01:50	02:00	02:10	RSSL	OK
ZS6DN		South Africa	01:40	01:50	02:00	02:10	02:20	ZS6DN	OK
5Z4B		Kenya	01:50	02:00	02:10	02:20	02:30	ARSK	OK ¹
4X6TU		Israel	02:00	02:10	02:20	02:30	02:40	IARC	OK ⁷
OH2B		Finland	02:10	02:20	02:30	02:40	02:50	SRAL	OK
CS3B		Madeira	02:20	02:30	02:40	02:50	00:00	ARRM	OK
LU4AA		Argentina	02:30	02:40	02:50	00:00	00:10	RCA	OFF ²
OA4B		Peru	02:40	02:50	00:00	00:10	00:20	RCP	OFF ⁶
YV5B		Venezuela	02:50	00:00	00:10	00:20	00:30	RCV	OFF ⁶

Table 1.

- 1 Operation may be intermittent due to local conditions.
- 2 Off due to construction at the site.
- 3 Operation on the WARC bands began October 6, 2005.
- 4 Off for unknown reasons. We are attempting to contact the operators.
- 5 Beacon equipment replaced Jan 16, 2006.
- 6 Off due to hardware problems. Repairs are underway.
- 7 Antenna repairs completed and back on the air March 7, 2007.

Band conditions aren't always what they seem to be. Just because the bands sound dead, it doesn't necessarily mean they are. Through listening for signals from the beacons, you can get an idea of where the band(s) may be open from your location. Good luck and good hunting.

The information in the above article comes from the Northern California DX Foundation's website and the July 2006 issue of QST magazine. I encourage the reader to access the Foundation's web site at www.ncdxf.org/beacon/intro.html for additional information. George - W6YD