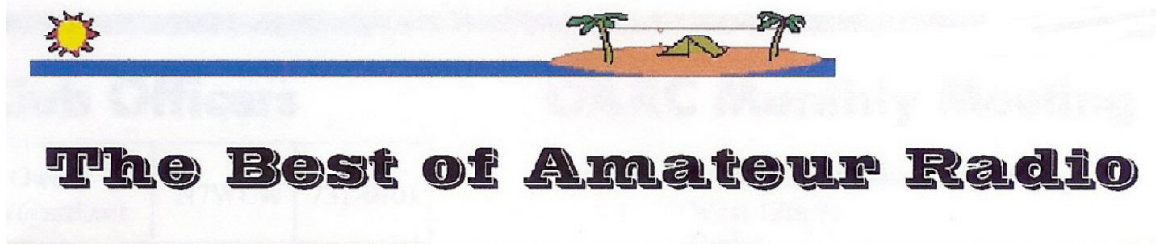




WATTS NEWS



Welcome to the OARC e-Magazine

www.OgdenArc.org

MARCH 2008

Next Club Meeting

3rd Saturday March 15, 2008

Topic: DX'ing and DX Antennas



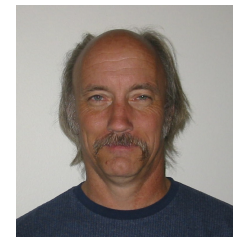
Kent Gardner WA7AHY
President



Kim Owen KO7U
Vice President



Maggi Campbell N7HCP
Secretary



Jeff Anderson KD7PAW
Treasurer



Mike Webster N9NZ
Director #1



Stan Sjol W0KP
Director #2



Mike Fullmer KZ7O
Past Pres/Advisor



Val Campbell K7HCP
Webmaster/Editor

PREVIOUS CLUB MEETING

3rd Saturday February 16, 2008

Attendance at the meeting this month was inspiring. We had a great turnout.

Mel Parkes NM7P spoke a few words to the members present about the Utah Hamfest coming up later this year. He further explained that WYMU would not be held this year. In any one year, only one of those two events will be held.

Ted Steinhorst KA2BIG of the Red Cross spoke to us briefly about the need for Amateur Radio Operators to volunteer their services to assist during civil emergencies. If you are interested contact him at ka2big@arrl.net.

The topic of presentation this month was "HF Digital Modes for Beginners" by Val Campbell K7HCP and Jeff Anderson KD7PAW. A power-point presentation provided a discussion of how to get started using these very interesting modes of communication. The minimum configuration requirements for using PSK31 was the main focus of discussion as well as more advanced methods and circuits were also presented. RTTY and SSTV modes were also discussed.

After the presentation, a live demonstration of each mode was executed, where we communicated across the room while displaying on the over head projection screen the computer operators console of a typical Amateur Radio digital QSO for each mode.

A detailed summary of the presentation is documented in the Feature Article section of this newsletter. The Power Point presentation and a Primer Tutorial is available for download from the club website. Point your browser to <http://OgdenARC.org> the click on "downloads" on the left side menu bar.

Thanks for attending the club meetings and we hope to see you at the next one.

73, Val Campbell K7HCP

MEMBERSHIP

The Ogden Amateur Radio Club (OARC) is an Amateur Radio Relay League (ARRL) affiliated club. It is important to us to maintain this affiliation with the ARRL. However, in order to keep this affiliation, OARC must maintain an ARRL 51% membership record. What this means is that at least 51% of the OARC members must also be members of ARRL. Remember, that membership in the ARRL also includes a subscription to the QST magazine. Support both originations by joining or renewing now. It will be greatly appreciated by all.

Support your Radio Club >>> [Join OARC and ARRL](#)

- Membership in OARC is complimentary for remainder of 1st year licensed.
 - Reduced membership dues for 1/2 year memberships.
 - ARRL **joins** thru OARC benefits your local club without additional cost to you.
 - ARRL **joins** through the club will receive the new Repeater Directory valued at \$10.95 as a gift.
 - ARRL **renewals** thru OARC also benefits your local club without additional cost to you.
-

If you [join ARRL](#), our club can retain \$15 for each NEW regular or senior membership and \$2 for each RENEWAL submitted.

A NEW MEMBER is defined as any individual who has never been a member of ARRL or any individual who has not retained a membership for two or more calendar years prior to the application submission.

A RENEWING MEMBER can renew at anytime, even before their current membership term expires.

If you're joining both the club and ARRL write one check payable to the club and mail both application forms to the club or contact our **Treasurer: Jeff Anderson KD7PAW**.

NEXT CLUB MEETING

When: 3rd Saturday March 15, 2008
Time: 9:00 AM
Location: Riverdale Fire Station (see web site for map)
Talk-in: -146.90 (pl=123)

Topic: DX'ing and DX Antennas

The guest speaker for the March club meeting will be members of the Utah DX Association. Dennis Utley, AF7Y will present on DXing, (The art of contacting stations from far away places) and DX antennas that work. This will be a good opportunity to learn more about this exciting aspect of ammeter radio and how we can, with modest antennas, make contacts with ammitters around the world.

CONGRATULATIONS:

The following attendees successfully tested at the recent Weber Co VE test session

- Christopher D. Smith K7CDS - Upgraded to Extra
- Glen D. Doxey K7GDD - Upgraded to Extra
- Samuel N. Brooks KC7KYY - Upgraded to General

- Judy R. Cope - Tech. = KE7ROM
- Danny J. Earl - Tech. = KE7ROO
- Sheri B. Trbovich - Tech. = KE7ROP
- Justin Doxford - Tech. = KE7ROQ
- Andrew Neal - Tech. = KE7ROR
- John E. Sohl - Tech. = KE7ROS
- Tonya G. Wood - Tech. = KE7ROT
- Jason R. Tuft - Tech. = KE7ROU
- Maria E. Bauer - Tech. = KE7ROV
- Carey L. Zarkou - Tech. = KE7ROW
- Devin R. Anderson - Tech. = KE7ROX
- Harlan M. Brewer Tech. & General = KE7ROY

FROM THE PRESIDENTS SHACK



Kent Gardner WA7AHY

I seem to remember putting up what is to be my 80 meter Sky Loop antenna last fall and looking forward to the day when I could finish putting in the final insulator and soldering on the coaxial cable down to my shack. I was interrupted, of course, by a very snowy winter. Now that March is here and spring is slowly coming, I am getting anxious to get out and finish the loop and get my peas planted in the garden.

My G5RV dipole did a good job in picking up the direct HAARP transmitter signals from the arctic and also the moon echoes, but I would have been interested to see whether the loop would have done better. Club member Jim Southwick, N7JS, reported that his 80 meter dipole did a better job in receiving the HAARP signals than his vertical. Isn't it interesting what difference the right kind of antenna can make?

This was a long way to get to the point of our next meeting on Saturday 15 Mar 08 at 9:00 AM. Dennis Utley, AF7Y, of Utah DX Association fame is making a return visit to our club. He will discuss distance communications (DX) as usual, but will cover what kinds of antennas seem to work best when it comes to worldwide communications. You won't want to miss his presentation.

Also, speaking of antennas...page 98 of the February QST has a Stray from Bob Culbertson, WA3YGQ, who uses high angle radiating antennas to work medium and high frequency (MF and HF) DX using forward meteor scatter. He seems to be proving that an effect similar to Gray line propagation is causing his DX contacts to increase by using meteor showers to reflect his MF and HF signals. He is looking for others who might be interested in participating with these experiments.

TNX

Kent, WA7AHY

CLUB NEWS

OARC Technician Licensing Class

OARC's 2008 "Technician" licensing class

by

Kim Owen KO7U

- DATE: Thursdays - March 6th thru April 24
- TIME: 06:30 PM - 09:00 PM
- LOCATION: Riverdale Fire Station [MAP](#) (same location as club meetings)
- VE TEST SESSION: A special test session will be held following the final class session
-

If you have an interest to attend a "Marathon" Technician crash course just prior to the next VE test session please contact us at webmaster@ogdenarc.org

If you have an interest for a "General" level licensing class please contact us at webmaster@ogdenarc.org

AR HOBBY NEWS

What's Happening?

- 7QP - 7th Area QSP Party
May 3 & 4
Contact=Darryl Hazelgren, K7UT, (801)580-9636, Utah DX Association
UDXA.org
 - Utah Hamfest 2008 (Brice Canyon - Ruby Inn)
July 11-13 (even numbered years only)
 - **No WIMU 2008** (odd numbered year only)
"Wyoming-Idaho-Montana-Utah" Hamfest (Jackson Hole Wyoming)
-

NEWS ARTICLES



RADIO LAW: FCC SAYS NO TO MORSE RECONSIDERATION REQUESTS

The FCC has said no to a pair of proposals that had asked for the restoration of Morse testing for a qualification to become and hold a United States Amateur Radio license. In a Memorandum Opinion and Order released February 28th, the FCC denied two petitions calling for General or Amateur Extra license applicants to demonstrate proficiency in Morse code.

RADIO LAW: MD SUPREME COURT TURNS AWAY TOWER CASE - BIG WIN FOR HAM

The Maryland Supreme Court has declined to hear the case involving a set of ham radio towers on in the town of Poolesville. That's good news for the ham who has been fighting to keep them. Amateur Radio Newsline's Bruce Tennant, K6PZW, explains:

The Maryland Supreme Court has decided against being involved in the case where neighbors of John Evans, N3HBX, had sued after he obtained a permit and installed several 100 foot and higher radio towers as part of a contest station. The neighbors claimed the installation would devalue their property and that the installation was an eyesore.\



Introducing CQoogle.com - the Ham Search Engine

A news site has been launched this week dedicated to hams.

The Ham only search engine has been designed with a clever set of Algorithms meaning what ever is entered into the search box, will be filtered and only ham radio results are seen. the challenge is to test it against google!

The site creators who are also responsible for the launch of HamBid.com say the tuning has taken some time but the results were worth it.

The key benefit being any Ham looking for a particular subject, will not have to sift through lots of 'false positives' as they would on other search engines.

www.CQoogle.com

 **24 hrs before HamBid.com is officially launched!**

www.HamBid.com will officially launch this coming Saturday.

Already there are almost 500 registered users and around 1000 unique visits to the site each day. Current growth is between 1 and 5% each day.

The biggest number of hits are currently from the US. This is followed by the UK, Germany, Italy, Spain and so on.

In order to make this totally free-to-use-buy-and-sell site easier to use, new language options are being added shortly. First will be Italian and Spanish which will be followed by Russian and German.

Currently, there is a British flag at the top right hand side of the site. The new languages will be selected by clicking the flags to each corresponding country which will sit alongside the British one.

Any constructive comments appreciated, those from always-negative-amateurs will be smiled at and ignored.

Remember, it does not matter if you are a private individual or a business. To buy, sell, post a wanted ad or submit an offer, there are no charges whatsoever. None, period.

www.HamBid.com

FEATURE ARTICLE

HF Digital Mode Primer

By Val Campbell K7HCP

INTRODUCTION

Getting started using the Amateur Radio Digital Modes of communications can be confusing and frustrating at times but it doesn't have to be that way. The purpose of this primer is to introduce you to the basics of using this fun to use mode of communication and to provide you with the understanding of the processes to setting up your hardware and software to easily and quickly start copying and later to start sending digital communications on the amateur radio HF shortwave bands.

The minimum hardware requirements to receive or copy HF digital communications are a personal computer (PC) with a standard sound card and a short wave or ham radio receiver with SSB mode. A receiver with digital tuning display is preferred but a receiver with analog tuning can work also.

You may have heard about various digital modes such as RTTY, SSTV, PACTOR, PSK31, and of course, CW. CW or Morse Code, as it is more commonly known, was the original digital mode used in communications; however few thought of it as digital until recently. Just like our old wristwatches were analog watches, we didn't think of them as such until digital watches came into existence. PSK31 has become by far the most popular digital mode used by amateur radio operators lately. PSK31 stands for Phase Shift Keying with a bandwidth of only 31 hertz. That's really all you need to know to use this mode of communications. The program does the rest for you.





The ARRL has the following to say about PSK31:

Since the spring of 1999, PSK31 has taken off like wildfire. What seems to be so attractive is that for very little investment, a simple station can achieve virtually flawless communications under very adverse conditions. This new mode also seems to have been made for the ham who might be hampered by an indoor, or less-than-optimum antenna. There are numerous reports of solid two-way communication when the signal is barely audible from the speaker. PSK31 requires a standard ham station, a computer with a SoundBlaster 16 compatible card, some free software and a very simple four component circuit if you wish the computer to control TR switching.

The software needed to get you started is freeware and can be downloaded from the Internet. One thing about Hams is that there are a lot of very talented amateur radio operators that are also talented programmers and freely share their programs in the name of promoting the hobby of Amateur Radio. **Digipan** is such a program and is available free for download. This PC application program, once installed on your PC, will support receiving, sending and logging PSK31 communications. We will discuss in detail the minimum requirements to get you started; first, to simply receive PSK31 communications, and later, to transmit PSK31 transmissions.

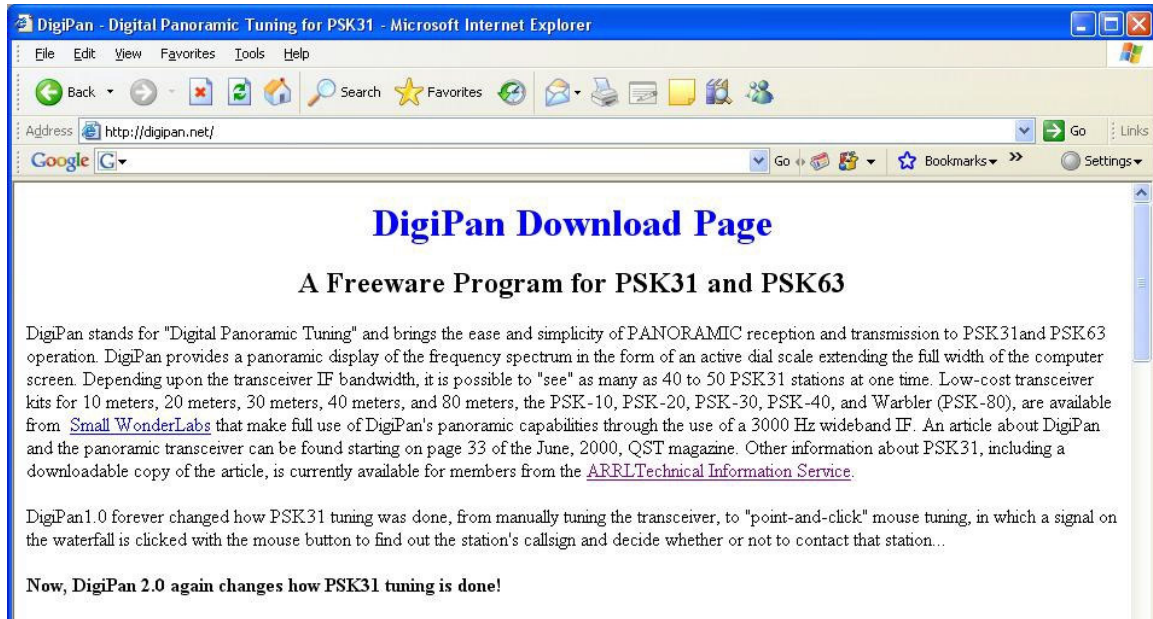
(Digipan authors: KH6TY, UT2UZ, UU9JDR)

There are other freeware programs available for download to support some of the other HF digital modes, and yet other programs that support more than one mode in the same package. There are also for-purchase programs available. Having said that, PSK31 is by far the most popular mode being used today and Digipan is by far the best program available to support PSK31, and it's FREE.

(For other modes and programs – see Reference section below)

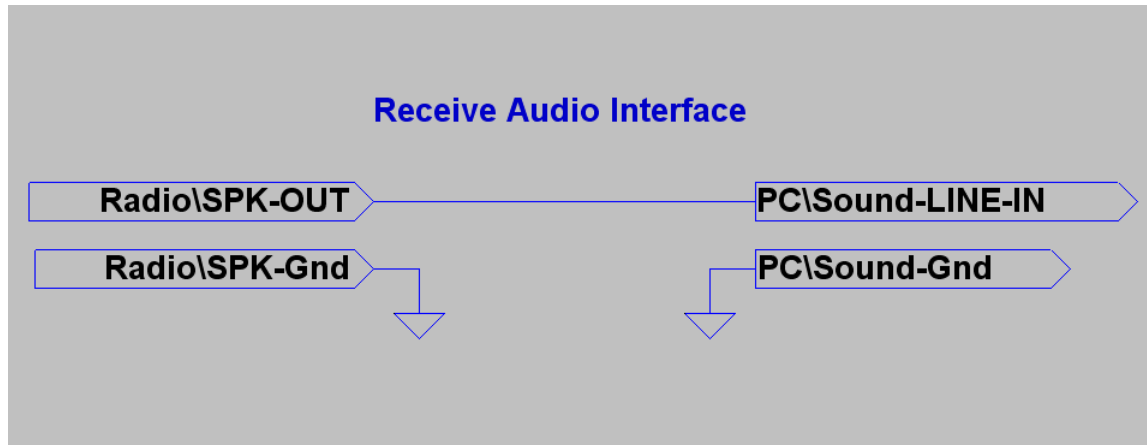
PROGRAM DOWNLOAD

So let's get started. First, point your browser to <http://digipan.net>. Scroll down the page and click on **Download DigiPan 2.0**. After downloading DigiPan, install the program as per the installation prompts. Don't start the program yet. We have a few other things we must do first.



HARDWARE CONFIGURATION – RECEIVE

Before we start the program we must interface your PC to your receiver. This can be done any number of ways. The simplest and quickest way would be to plug a microphone into your PC sound card **MIC/SOUND-IN** jack (orange) and place the microphone in front of your shortwave receiver speaker. If you do not have a Microphone or if you prefer to take this interface to the next level of sophistication, obtain a shielded audio/stereo cable and plug one end into the PC Sound Card **LINE-IN** (blue) jack and the other end into your receiver **SPEAKER-OUT/EARPHONE** jack.



DIGIPAN CONFIGURATION - RECEIVE

Now, it's time to start **Digipan**. The first time you start the program, you must personalize Digipan with user information. Follow the query to enter your call sign, name and QTH (city & state). If you do not have a call sign yet, simply enter SWL for Short Wave Listener. Of course, it will NOT be legal to transmit until you have a amateur radio call sign but you will be able to copy the other HAM radio operators as they QSO (contact/communicate) one with another.



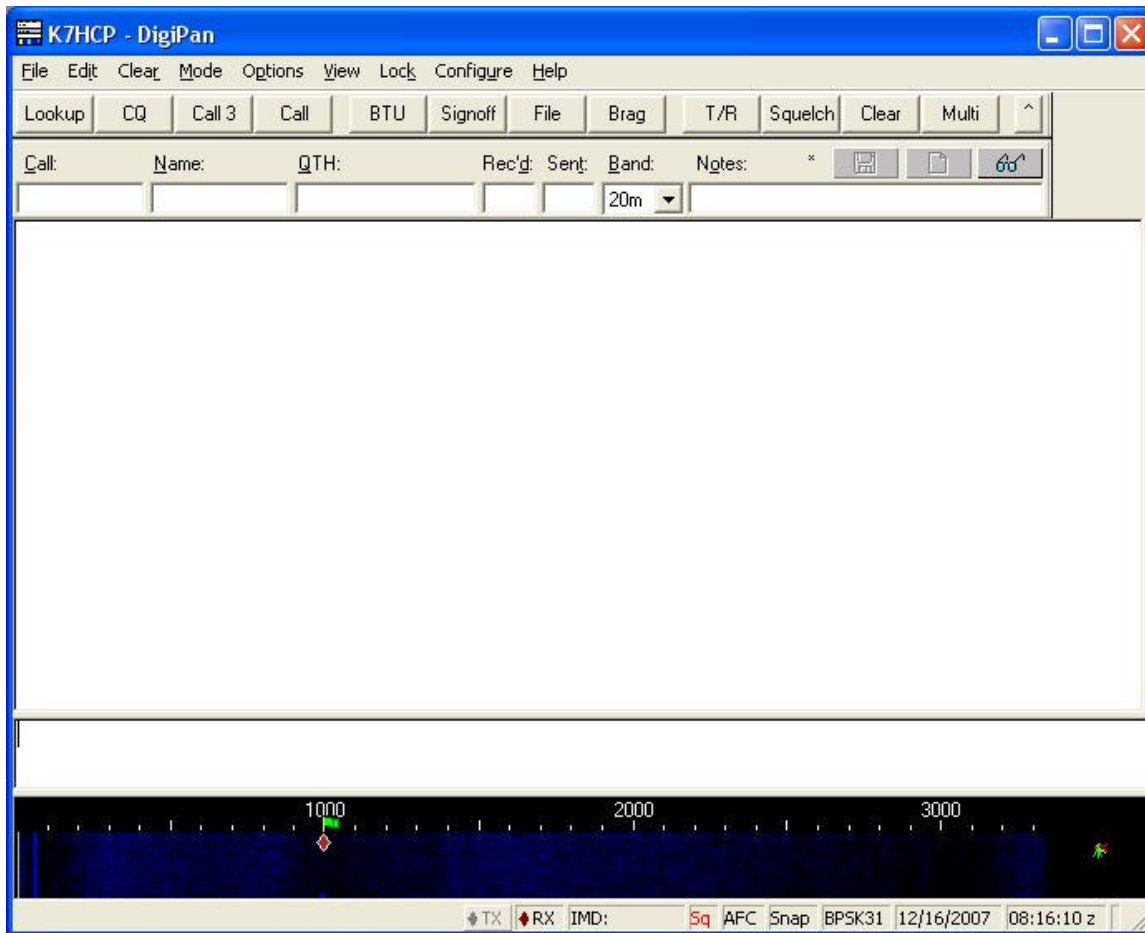
The screenshot shows a 'Personal data' dialog box with the following fields and controls:

- Call: K7HCP
- Name: Val
- QTH: Ogden UT
- Use CWID:
- Fast: Slow:
- CWID: de K7HCP sk
- Buttons: OK, Cancel

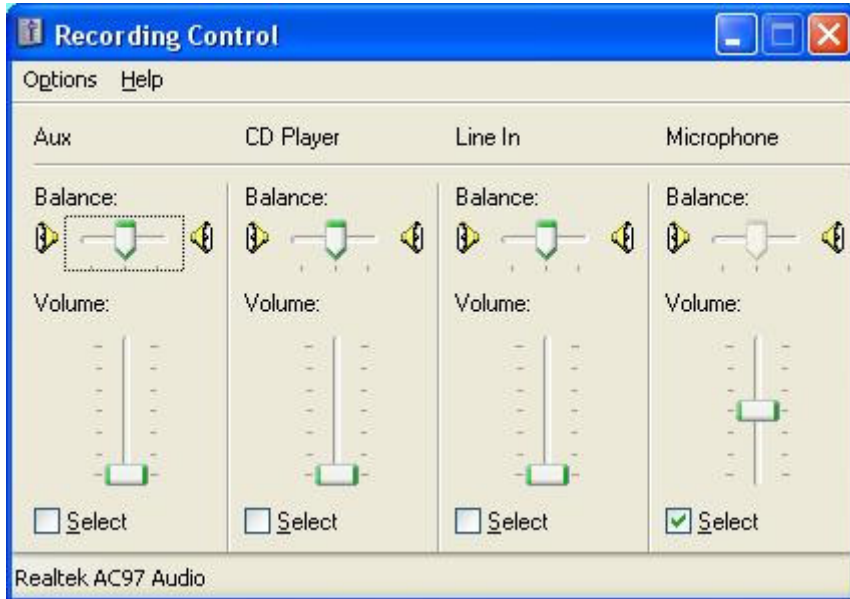
NOTE1: If you need to change the personal data at a later time, on the main Digipan screen click the **CONFIGURE** keyword on the tool bar at the top of the Digipan window and then click **PERSONAL DATA**

NOTE 2: To make things simpler for first time users, on the main Digipan screen click the **VIEW** keyword on the tool bar at the top of the Digipan window and then click to '**un-check**' the **MULTI-CHANNEL WINDOW** selection. Later you may choose to go back and check this choice for enhanced usability.

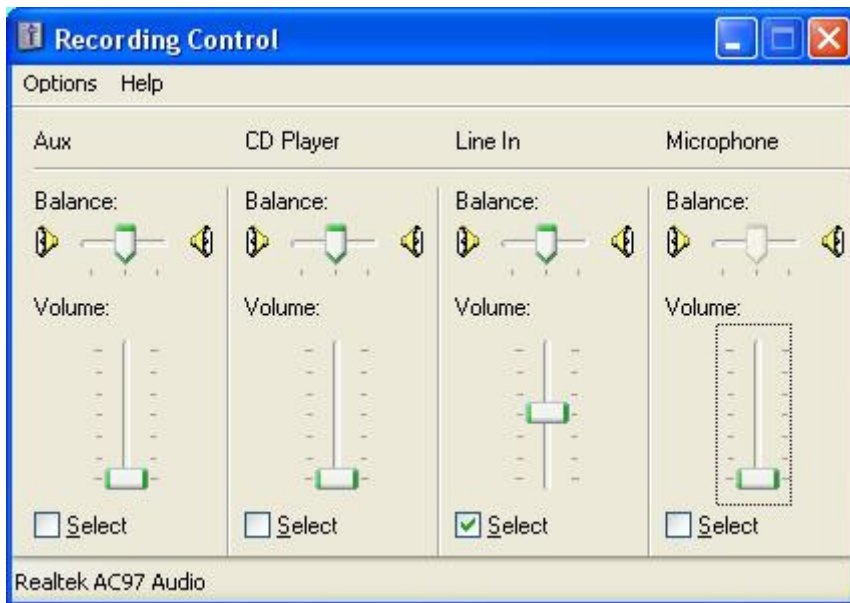
This is how the Digipan screen looks right after installing the program. With a little familiarization you will want to personalize the appearance and function ability of the operational window to suit your personal preferences. All the screens that I will show you after this one have been personalized to suit my preferences.



Next we must set up the sound card input (receive) audio levels. Click on the **CONFIGURE** keyword on the tool bar at the top of the Digipan window and then click on **WATER FALL DRIVE**. This opens the **RECORDING CONTROL** panel. If you are using a microphone connected to PC sound card Mic-In jack, click 'select' for the MICROPHONE panel and slide that slider to about the mid range position.



If you are using a direct connect audio/stereo cable between your radio Speaker-Out and the PC sound card Line-In, click 'select' for the LINE-IN panel and slide that slider to about the mid range position.

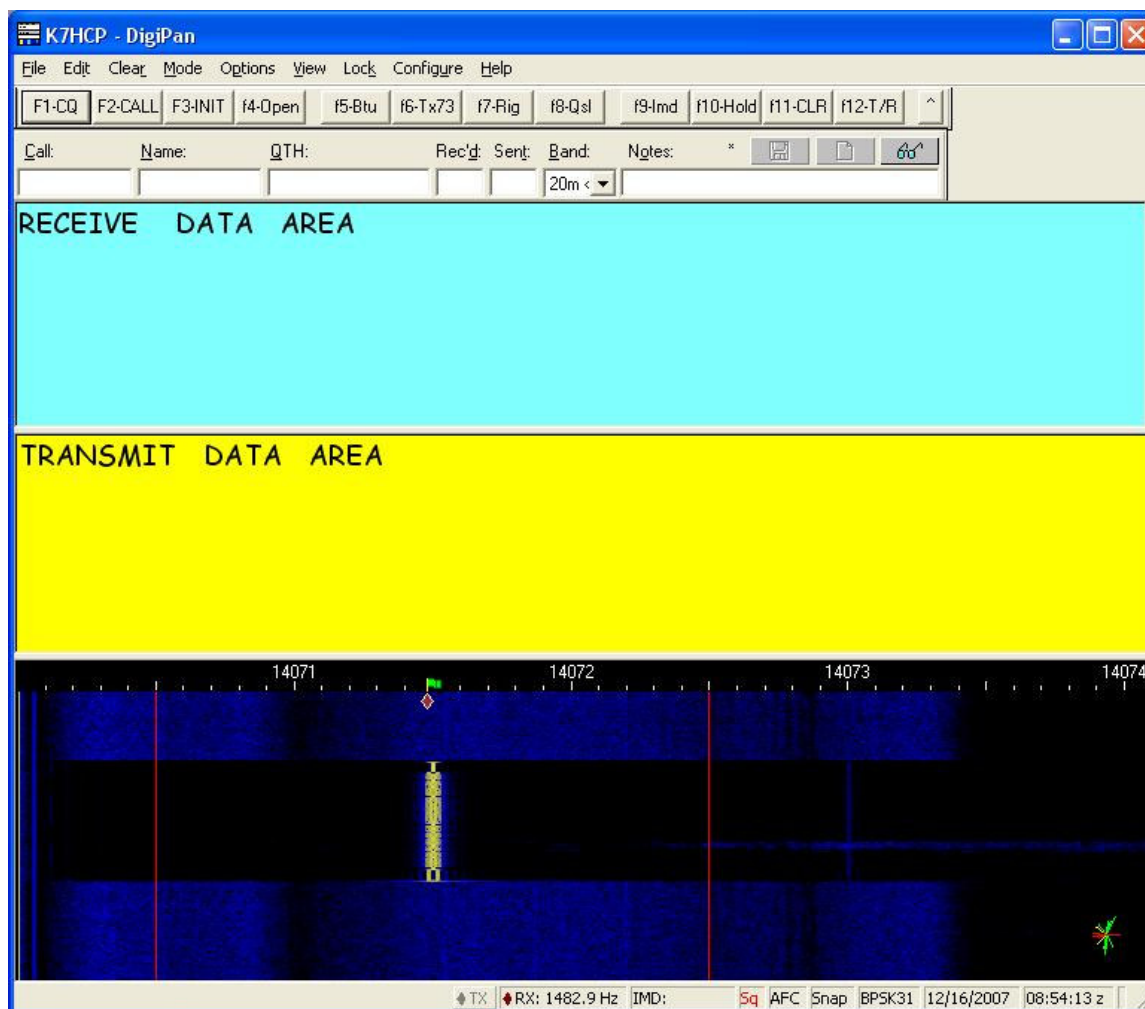


Finally, if your recording control window has a panel for the main RECORDING volume, depends on the PC sound card being used, slide that slider to about the mid range position. If not, we will do it later. Now you can close the recording control window.

DISPLAY SCREENS

On the main Digipan screen, there are 3 data display areas. The area at the bottom of the screen is the **receive signal WATER FALL display** area. The area just above the water fall signal display area is the **transmit data entry** area. We won't be using this area until we setup your configuration for sending PSK31 signals. Of course, that would require that you are already a licensed Amateur Radio operator. The display area just above the transmit data entry area is the **received data display** area. This is where the received text messages are displayed as they are decoded by Digipan. Think of this as your Amateur Radio wireless Instant Message (IM) screen. Hi Hi

You can resize any of the data areas by clicking on the heavy horizontal borderline immediately above each data area and dragging the borderline upward or downward. I recommend that we should enlarge the bottom water fall display area because this is where you do all your **tuning** while operating PSK31. More about tuning later. First, let's make room for the larger water fall display area by resizing the middle, transmit data area. Do this by clicking on the heavy horizontal borderline immediately above the middle display area and drag it upwards. Now, do the same thing with the heavy horizontal borderline immediately above the bottom water fall display area. I would suggest making the top receive data area about one-half of the total screen area and then split the remaining area between the middle transmit data area and the bottom water fall display area.



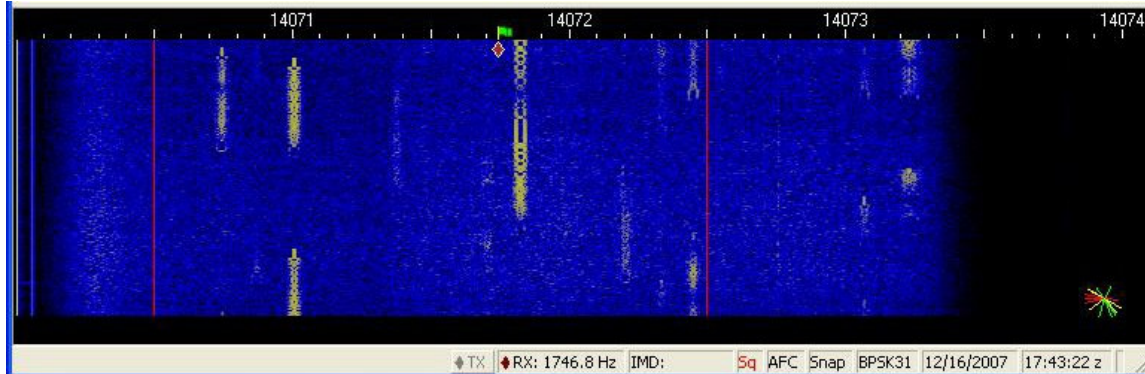
RECEIVING PSK31

Okay, it's time to turn on the radio. Set your receiver to Upper Sideband (**USB**) mode and tune to **14.070 Mhz** [20 meter band] daytime, **7.070 Mhz** [40 meter band] late afternoon/evening or **3.580 Mhz** [80 meter band] night time. Adjust the volume until you can hear a respectable level of audio. PSK31 signals sound like a lot of various TONES whistling in the background. What you are hearing (hopefully) are many stations all simultaneously transmitting PSK31 digital signals across the band. Worry not. Even though your human ear cannot sort out all the signals the PC sound card with the help of Digipan can.

The **water fall** display area is your main point of control for most of the digital operations. This is where you do your tuning, not at the radio. The water fall background is black initially. As you turn up the receiver volume the background will start to turn blue. As you advance the volume further, yellow noise will be displayed on the blue background. If you turn the volume up too far the blue will be completely covered with yellow noise. Back off the volume until you have a balance between blue background and yellow noise.

Note that you can also control the audio receive sensitivity by using the 'Recording Control' mentioned earlier. Click 'Configure' on the tool bar and then click 'water fall drive'. Adjust the **slider controls** to affect the water fall display area background as described above. You will be amazed how low a speaker volume is needed to get perfect copy. More about this later.

The water fall display area is where we see displayed the various stations transmitting in the PSK31 ham band. Every station that is transmitting at any one time shows up as a vertical trace on the water fall. Another station may show up either to the left or to the right (up frequency or down frequency) of the other stations. Many stations may show up here at the same time, especially when the band is open, spread out horizontally across the water fall display. With a receive signal present, fine tune the volume controls until the vertical signal trace stands out as a deep yellow **train track** (two parallel lines). If you get the volume too high, the deep yellow train tracks will turn to red. This indicates that you have the audio input level too high. Back off the volume until you have the perfect trace.

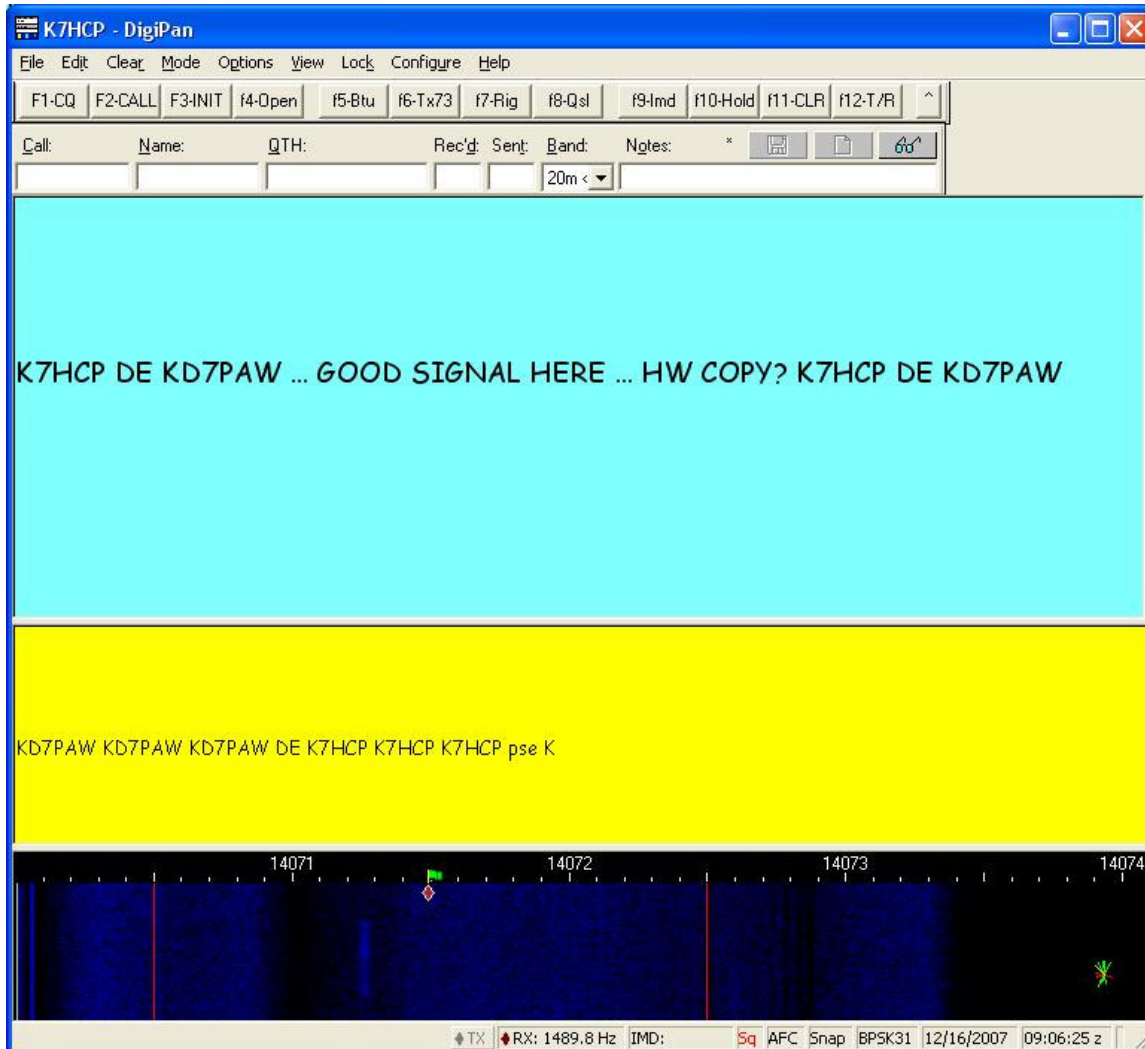


To tune in a station and start decoding any one of the stations, simply put your **Mouse Pointer** over the desired vertical trace train tracks on the water fall display and then click. Digipan will start to decode that signal and display the received data in the top display window area. To copy another station simply put the mouse pointer over another train track trace on the water fall display and click again.

NOTE 3: There is NO need to tune your receiver. You do your tuning with your mouse as described above. Set your receiver on one of the frequencies outlined above and leave it set. If your receiver does NOT have a digital tuning display an analog tuning dial will still work but will require more trial and error to find the desired frequency. Just tune very slowly and listen for the various TONES whistling in the background. Then look at your waterfall display for train tracks to appear as the waterfall cascades downward in time.

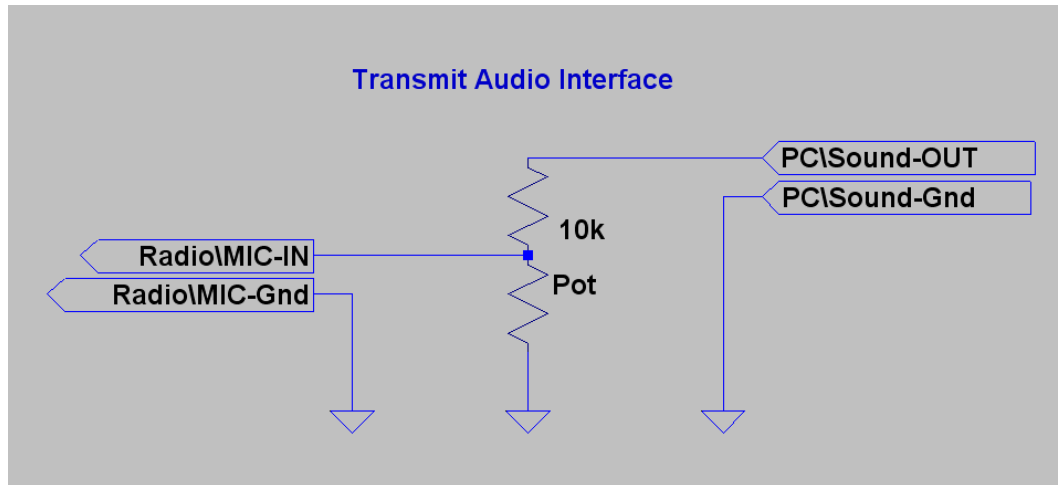
NOTE 4: Remember that for PSK31, always set your receiver to SSB mode, Upper side band (USB).

The top data area is where the PSK31 signal is displayed as it is received and decoded by Digipan.



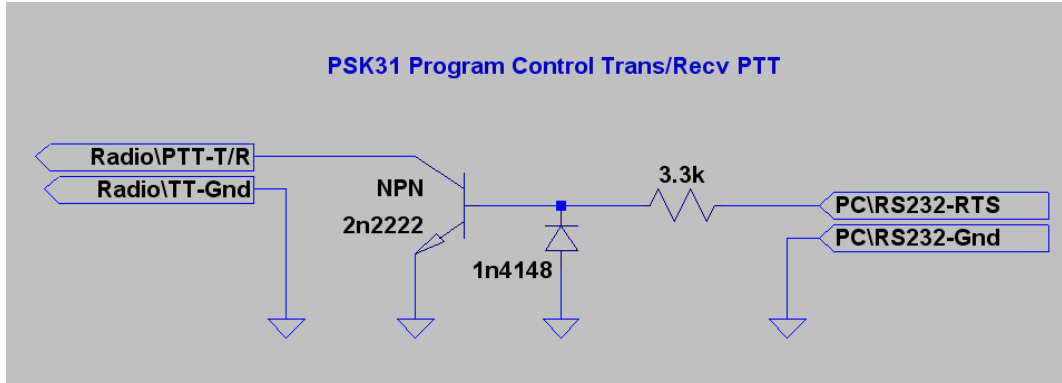
HARDWARE CONFIGURATION – TRANSMIT

Before we can transmit we must interface your PC to your transmitter (transceiver). This can be done either of two ways. The simplest and quickest way would be to obtain a shielded audio/stereo cable and plug one end into the PC Sound Card **SOUND-OUT** jack (green) and the other end into your transmitter **MIC-IN** jack. Depending on the brand/model of your transmitter you will probably need to attenuate this signal with a series resistor or the sound card may over modulate your transmitter. Different transmitters have various mic input level requirements so the value of the series resistor will vary. You will have to experiment with this or use an adjustable variable pot.



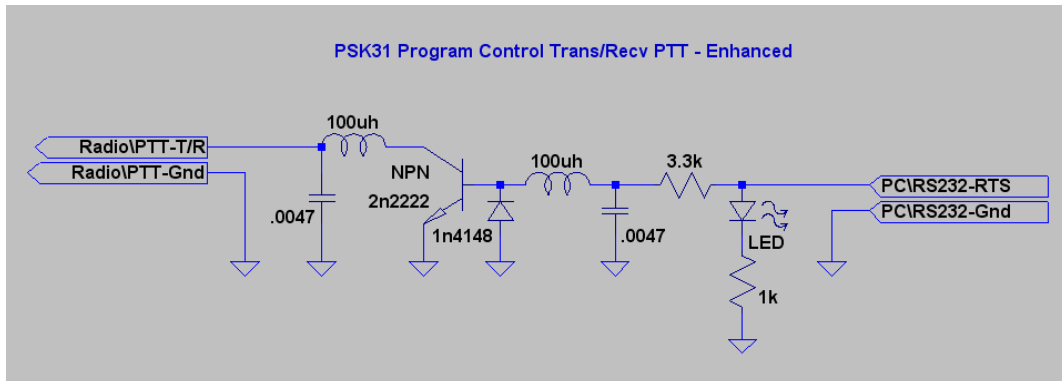
PROGRAM CONTROL – SIMPLE TRANSMIT / RECEIVE PTT

To take this interface to the next level of sophistication, you can optionally choose to interface your PC **RS232 serial port** to your transceiver Transmit/Receive (T/R) Push-to-Talk (PTT) which allows the PC program to switch your transceiver between receive mode and transmit mode automatically. This can be real cool. This way your **mouse pointer** becomes the point of control for all transmit/receive operations.



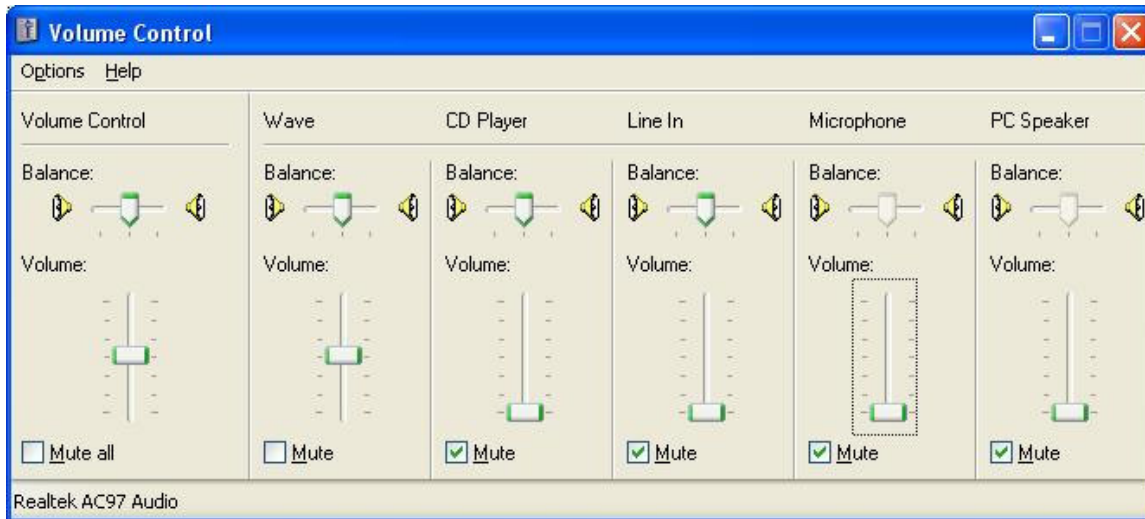
PROGRAM CONTROL – ENHANCED TRANSMIT / RECEIVE PTT

In addition please note that you may prefer to use an enhanced T/R interface option. This interface contains additional components that will help protect your T/R interface from stray RF. You will want to use this circuit if you find that when the program keys the transmitter it does NOT successfully return to receive mode. Additionally this circuit contains an LED to indicate when the program has keyed your transmitter. This can be very helpful.



DIGIPAN CONFIGURATION – TRANSMIT

Next we must set up the sound card output (transmit) audio levels. Click on the **CONFIGURE** keyword on the tool bar at the top of the Digipan window and then click on **TRANSMITTER DRIVE**. This opens windows **VOLUME CONTROL** panel. Since we are using a direct connect audio/stereo cable between your radio Mic-In and the PC sound card Audio-out, make sure that the WAVE panel is NOT muted (un-click 'mute' for the WAVE panel) and slide that slider to about the mid range position. Finally slide the VOLUME CONTROL slider to about the mid range position. Now you can close the volume control window.



TRANSMITTING PSK31

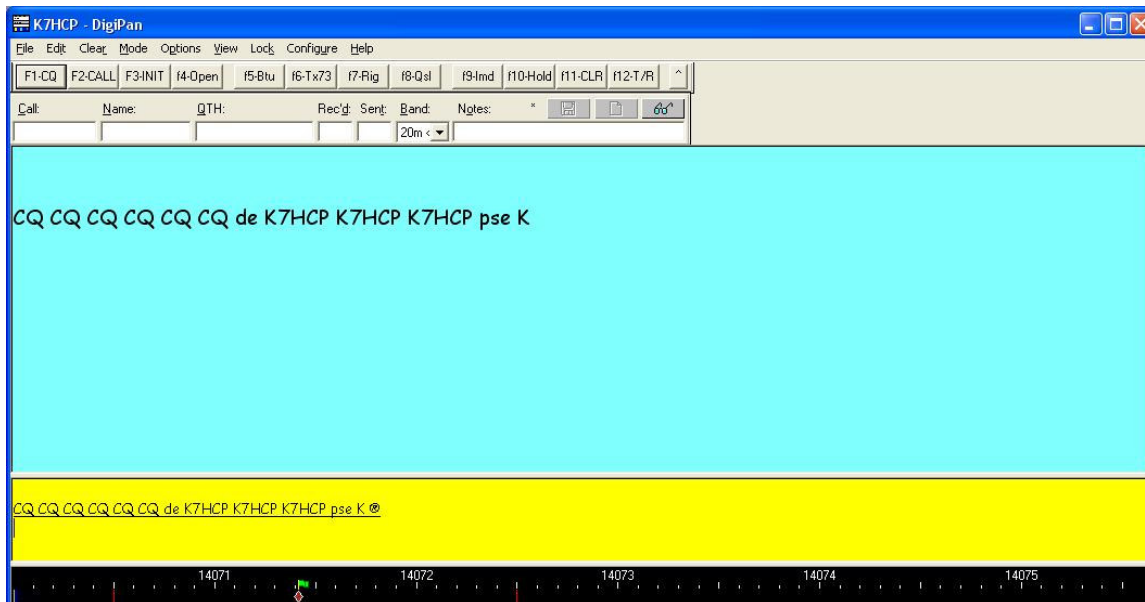
To transmit on the ham bands requires that you are a licensed Amateur Radio operator.

To transmit a CQ (general call) simply put your **Mouse Pointer** at a point on the water fall display that is **not** in use, absent of any vertical trace train tracks, and then click. This will choose that spot on the band (frequency) that you want to transmit. Be sure you do not click to near another station's tracks. Next place your mouse pointer over the **transmit data area** and click. The area just above the water fall signal display area is the **transmit data entry** area. Now you can use your keyboard to enter a CQ message to be transmitted. Mixed case characters are allowed in PSK31. When you have finished entering the outbound message click the **T/R button** on the tool bar at the top of the Digipan screen to enter transmit mode. If you are using the program controlled T/R interface circuit described above the program will control the transceiver automatically for you. Otherwise you will have to switch your transceiver to transmit manually.

After the message has been transmitted click on the T/R button again to switch back to receive mode. Again if you are using the program controlled T/R interface circuit the program will control the transceiver automatically for you. Otherwise you will have to switch your transceiver back to receive manually.

To answer another station that is calling CQ, simply put your **Mouse Pointer** over the desired vertical trace train tracks on the water fall display and click to set your transmit frequency. Digipan will start to decode that signal and display the data received in the top display window area. To reply, place your mouse pointer over the **transmit data area** and click. Now you can use your keyboard to enter a response message to be transmitted to the station calling. As described above, when you have finished entering the outbound message, click the **T/R button** on the tool bar at the top of the Digipan screen to send your message. You can continue to key in your message as you transmit. You do not need to finish entering your outbound message before you start to transmit.

NOTE 5: Remember, there is **NO** need to tune your transmitter. You do your tuning with your mouse as described above. Set your transmitter on one of the frequency bands as outline in the receive section above and leave it set. Also note that your transmit data is displayed in your received data area as it is being transmitted.



CONCLUSION

Amateur radio digital communications can be very exciting. The purpose of this primer was to introduce you to the basics of using this fun to use mode of communication and to provide you with the understanding of the processes to setting up your hardware and software to easily and quickly get you started.

With very little investment in equipment and minimal interfacing you can be "on-the-air" using many of the digital mode communication programs that are available for download from the internet. Many of the programs are free of charge, written by amateur radio operators throughout the world. Other very exceptional programs are available at quite reasonable prices.

Operating PSK31 requires minimal transmitter power to communicate effectively. Most hams operate with only 25 to 50 watts output. Be careful to not over modulate your signal. Using too much transmitter ALC will make your signal difficult, if not impossible, to copy. Check the waterfall display for received signals that have distorted or wide 'train tracks'. This is a visual indication that the station is over modulating their PSK31 signal. Be careful that you are not one of the stations that do that.

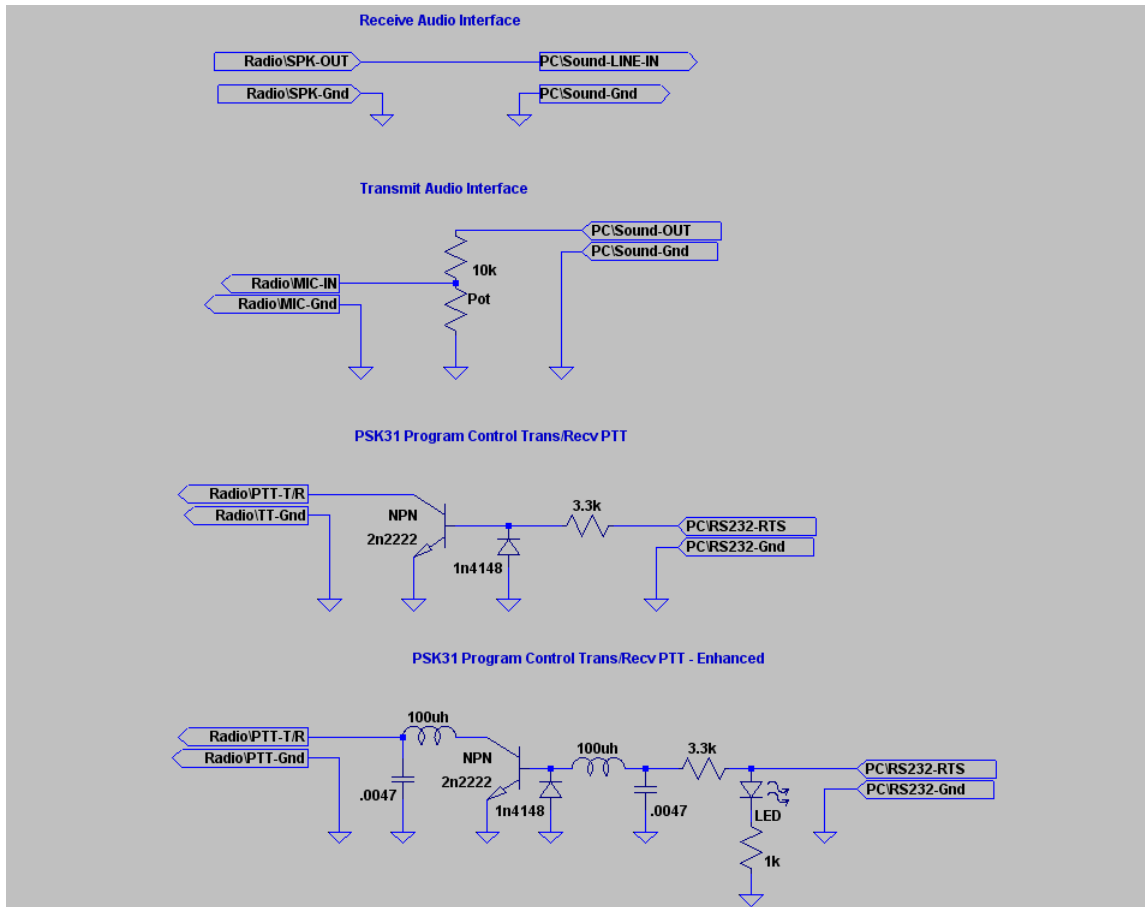
Good Luck going digital and if you have any questions or comments please feel free to contact me via email: k7hcp@arrl.net

REFERENCES

Other digital mode decoder programs

- PSK31 – Phase Shift Keying (very good program)
 - DigiPan <http://digipan.net/>
- RTTY - Radio TeleType (the best for RTTY)
 - MmRTTY <http://amateur-radio.ca/>
 - TrueTTY <http://dxsoft.com/>
- SSTV – Slow Scan TV (the best for SSTV)
 - MmSSTV <http://amateur-radio.ca/>
- CW – Morse Code (makes copying CW easy)
 - GetCW <http://dxsoft.com/>
- Multi Mode programs (*)
 - HamScope <http://www.qsl.net/hamscope/>
 - MixW <http://mixw.net> (highly recommended)
- Contact Log Programs (highly recommended)
 - AALog <http://dxsoft.com/>
 - ACLog <http://n3fjp.com/>
- (*) Multi Mode programs support many of the following digital modes as well:
 - PACTOR
 - WinLink 2000
 - Clover
 - Hellschreiber
 - MFSK
 - G-TOR
 - MT-63
 - Throb
 - Olivia
 - DominoEX

Reference Diagrams



Hope to hear you on the bands soon.

73,

Val K7HCP

ANNOUNCEMENTS

Next Club Meeting:

3rd Saturday March 15, 2008

- The Ogden Amateur Radio Club meetings are usually held on the 3rd **Saturday** of each month.
- **Time: 9:00 AM**
- **Location: Riverdale Fire Station**

Topic: DX'ing and DX Antennas

- **Talk-in: -146.90 (pl 123.0)**

Check OARC web site 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:

1st Wed June 04, 2008

- Exam sessions are held in Ogden every few months, *usually* the first Wednesday in February, June, and October.

Time: 05:00 PM *Walk-ins allowed*

Location:

**WEBER CENTER
2380 Washington Blvd,
Room # 112
OGDEN, UT 84401**

Contact: VE Liaison:

Mary Hazard w7ue@arrl.net (801-430-0306)

Cost: \$14.00

Two forms of **ID**, one of which must be a **picture ID**.
For "Upgrades" bring current **license** and a **copy** of current license, and any **CSCE**'s

Most **calculators** allowed. Calculator memories must be cleared before use.

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 "Talk-in"	123.0	Little Mtn (w/auto patch)
448.575-	OARC	100.0	Little Mtn (w/auto patch)

OTHER AREA REPEATERS			
FREQ	CLUB	TONE	LOCATION
146.620-	UARC	none	Farnsworth Pk
147.120+	UARC	100.0	Farnsworth Pk
449.100-	UARC	146.2	Farnsworth Pk
449.500-	UARC	100.0	Farnsworth Pk
ATV	UARC	Ch-58	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-	K7HEN	123.0	Promontory Pt
146.920-	N7TOP	123.0	Promontory Pt
449.775-	N7TOP	123.0	Promontory Pt
448.825-	IRLP/Echo	123.0	Clearfield City
449.950-	IRLP	123.0	Clearfield City
449.425-	IRLP	100.0	Nelson Peak
147.360+	Summit County	100.0	Lewis Peak

AREA CLUB MEETINGS & WEB SITES

CLUB	WEB SITE	DATE/TIME	LOCATION
Ogden ARC	ogdenarc.org	3 rd Saturday 09:00 am	Check OARC web site ...
WC ARES	ogdenarc.org/join.html#ares	2 nd Thursday 06:30 pm	Weber Co. Library Ogden Utah
WC Sheriff Comm-O		1 st Saturday 09:00 am	Weber Co. Sheriff Complex West 12 th Street Ogden Utah
Barc	barconline.org	2 nd Saturday 10:00 am	Cache Co. Sheriffs Complex 200 North 1400 West Logan Ut
CSERG	dcarc.net/ares.htm/	Last Wednesday 8:30pm	Clearfield City Hall Clearfield Utah
Dcarc	dcarc.net	2 nd Saturday 10:00 am	Davis Co. Sheriff Complex Farmington Utah
NU Ares	home.comcast.net/~noutares/	3 rd Wednesday 7:00 pm	Cache Co. Sheriff Office Logan Utah
Uarc	xmission.com/~uarc/	1 st Thursday 7:30 pm	UofU EMC Bldg Room 101 Salt Lake City Utah
Ubet	27meg.com/~k7ub/	4th Thursday 6:30 pm	BE-Thiokol: 24 East 100 South Brigham City Utah
Utah DX Association	udxa.org	3 rd Wednesday check web page for details	check web page for details Salt Lake City area
UvhfS	ussc.com/~uvhfs/	Each Tuesday 8:00 pm (refer to web site)	Weekly 2 meter net (no eye ball meetings)
WD Arc	westdesertarc.org/	1 st Tuesday 7:00 pm	Tooele County Courthouse Tooele Utah
WsuArc	arcweber.edu	3 rd Thursday 5:30 pm	WSU Blding #4 Room ? Ogden Utah

LOCAL AREA NETS

DATE	CLUB	FREQ
Daily @ 12:30 PM mt	Utah Beehive net HF	7.272 Mhz HF LSB
Daily @ 07:30 PM mt	Utah Code net HF	3.570 Mhz HF CW
Daily @ 02:00 UTC	Utah Farm net HF	3.937 Mhz HF LSB
Sunday @ 8:45 AM	Ogden Old Timers HF net	7.193 Mhz HF LSB
Sunday @ 7:30 PM	UBET ARC	145.430 - 123.0 (training net)
Sunday @ 8:30 PM	SATERN Net	145.900 - 123.0
Sunday @ 9:00 PM	Morgan Co Net	147.060 = simplex
Sunday @ 9:00 PM	UARC Info net	146.620- no PL tone required
Monday @ 9:00 PM	2-meter SSB net	144.250 Mhz 2-meter USB
Tuesday @ 8:00 PM	Weber ARES	448.600 - 123.0
Tuesday @ 8:00 PM	VHF Society Swap	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 HF net	28.313 Mhz HF USB
Wednesday @ 9:00 PM	6-meter SSB net	50.125 Mhz 6-meter USB
Thursday @ 6:30 PM	Davis Co Elmers Net	147.040 + 123.0 New Hams
Thursday @ 7:00 PM	Davis ARES	147.420 = simplex
Thursday @ 8:00 PM	Weber State ARC	146.820 - 123.0 (coming soon)
Thursday @ 8:00PM	RACES State VHF	145.490 - 123.0, 146.680 - 123.0 3 rd Thursday - even months only
Thursday @ 9:00PM	Wasatch Back Net	147.360 + 100.0
Saturday @ 8:00AM mst	RACES State HF	3.920 Mhz HF LSB 3 rd Saturday – odd months only
Saturday @ 11:00AM mst	QCWA net HF	7.272 Mhz HF LSB

OARC OFFICERS

President: Kent Gardner WA7AHY
Vice Pres: Kim Owen KO7U
Secretary: Maggi Campbell N7HCP
Treasurer: Jeff Anderson KD7PAW

Director #1: Mike Webster N9NZ
Director #2: Stan Sjol WOKP

"WATTS NEWS" e-Magazine

Editor: Val Campbell K7HCP

OTHER CLUB FUNCTIONS

Webmaster: Val Campbell K7HCP
VE Liaison: Mary Hazard W7UE
Repeater Engr: Mike Fullmer KZ7O
Past President - Advisor:
Mike Fullmer KZ7O

73 es cul de W7SU

www.OgdenArc.org