

ZerO Beat



Montgomery Amateur Radio Club Newsletter

Established 1938

November 2012

CALENDER OF EVENTS

CLUB MEETING

Every month - 3rd Monday at 7 PM
American Red Cross Building
5015 Woods Crossing Dr. Montgomery

FELLOWSHIP BREAKFAST

Saturday morning before the club meetings at 8:30AM
Flip's on Atlanta Hwy. at Perry Hill Rd.

FCC EXAMS

CAVEC every 2nd Monday at 6:30 PM at
American Red Cross, 5015 Woods Crossing Dr.
For Info contact Jim Eiland, KR4JY (jeiland@knology.net)

MARC Hamfest

Saturday November 10th, 2012

**NEW LOCATION

Alcazar Shrine Temple

555 Eastern Blvd
Setup: Friday 3-8 PM, Saturday 7-8:50 AM
Doors open 9 AM until 3 PM
Talk-in 146.84 (Call W4AP)

Club Nets

Central Ala 2 meter Net
Sunday at 8:00PM on 146.84 MHz Net manager: Chris, K4LIA

2M SSB Net,
Sunday, immediately following the Central Ala 2 meter Net
on 144.210MHz USB Net Managers: EI K4DJL & Jim N4CIO

SkyWarn/Alabama Emergency Net Golf
Thursday at 7:00PM on 146.84. Net manager: Otto, N4UZZ

2012 Officers

President: Scott Poole, W4SPA
Past President: Ken Kohnke, KJ4CJP
Vice-President: Ken Kohnke, KJ4CJP
Secretary: Rick Cochran, AJ4ZZ
Treasurer: Jim Cooke, AK4FP
Publicity: Bruce Jenkins, K14OZW
Trustee: Jim Eiland, KR4JY
Trustee: Rik Doll, KU4PY
Trustee: Phil Salley, K4PO
Trustee: Scott Poole, W4SPA
W4AP Trustee: Tim Moore, K4TK

Local Repeaters

146.840(-) W4AP Wetumpka
146.920(-) W4AP Eastdale (DSTAR)
147.180(+) W4AP Tall tower - Grady, AL 123 Hz
444.5(+) W4AP Wetumpka 100 Hz
53.350(-) W4AP Titus, AL 100 Hz
444.450(+) WD4JRB Baptist Tower 100 Hz
(Echolink Node 212144)
147.200(+) KE4LTT Friendship 107.2 Hz
444.575(+) KE4LTT Friendship 100 Hz
145.690 W4AP BBS
144.390 W4AP-1/3 APRS Digipeaters



From the President's Shack

By Scott Poole, W4SPA

It's been a busy summer for the Montgomery Amateur Radio Club and several significant events have taken place since the last Zerobeat was published. First, the ARRL annual Field Day event was the weekend of June 23rd and 24th. The men and women of the MARC came together again this year and, as usual, we had a great weekend of operating and fellowship. Once again, we held out Field Day activity at Fort Toulouse Park in Wetumpka. Ken Kohnke, KJ4CJP, was at the helm for MARC Field Day 2012 and he did an outstanding job! Thanks to all who participated in any way! The Alabama State Emergency Test or SET was held on Saturday, Oct 6th with MARC's participation. Many thanks to El Erby K4DJL for heading up the effort again this year. There are several important events coming in the next few weeks and months too. The MARC Hamfest will be Saturday, November 10th this year. We will hold this year's hamfest at a new location; the Alcazar Shrine Temple located at 555 Eastern Blvd. With a move of venue, there comes some additional work and planning to get the show going... for example, we're going to operate the concession stand this year. Like all other MARC projects, it takes a lot of work by a lot of people to make everything come together and run smoothly. So, if you'd like to help out, please talk to me. Our new MARC emergency communications trailer will be in-service as the talk in station for the hamfest and it will be open for walk-through tours! Otto Arnoscht, N4UZZ, will be the voice of W4AP again this year as he serves as the talk-in operator.

At the October MARC meeting, nominations were opened for club officers. Here's a summary of the nominations so far:

- Trustee FredSpringall, KR4YK
- (replacing Rik Doll, KU4PY)
- Publicity Officer Bruce Jenkins, KI4OZW
- Secretary Rick Cochran, AJ4ZZ
- Treasurer Jim Cooke, AK4FP
- Vice-President John Garmin, WN9J
- President (Open at this time)

Nominations will remain open for officers through the November MARC meeting. Also, at the November meeting nominations will be opened for the 2012 MARC Awards; Public Service, Elmer of

the Year, and WH4OOPs. Nominations will be closed and the election will take place at the November MARC meeting. The time and place of the election is: Monday, Nov 19, 2012, 7:00PM at the Montgomery Red Cross facility located at 5015 Woods Crossing Drive. Voting members must be present to cast a vote. An announcement for the place and time of the election will also be sent out via the MARC-list. Speaking of the MARC-list, if you're not already on the list, it's the single best way to stay in touch with what's happening with our club. Registering is easy (and you don't even have to be a MARC member), just go to <http://www.w4ap.org>, click on the MARC-list link on the left side of the page, and give us your e-mail address. Then, you'll get the latest MARC news delivered right to your inbox. Don't worry, it's a moderated list so there's no spam.

I think we've made some extraordinary accomplishments in our club during the past couple of years and I'm certain the trend will continue under the next administration. Thanks to every one of you for your support and friendship while I held the office of President – you all really did make my job easy!

73,
Scott

Need a ride to MARC Meetings?

If you or someone you know of would like to attend the monthly MARC meetings but cannot get there, we can help.

Please contact me at 334.262.0412 or by email at President@w4ap.org

If you get my voice mail, please leave your name and phone number and we will make arrangements to get you to the meetings.

Summary of club meeting activity for the period of June through October 2012#

June 18, 2012

- Field Day T-shirts distributed
- Governor Bentley declared the last week of June as Amateur Radio week. The proclamation will be displayed in the Communications Trailer.
- The MARC Emergency Communications trailer was on display for everyone to see
- Randy, AJ4HY, said the revised By-laws were ready for review and will be passed to the club board.
- Ken, KJ4CJP gave us a Field Day update
- Due to the heat it was decided that the starting of set up for Field Day would be postponed till 5:00 pm Friday
- Tom Bray presented a Youtube video on the operation of the IC-7200

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July 16, 2012

- New licenses and upgrades were recognized
- Scott gave us a briefing on the past Field Day. The management of Ft. Toulouse are happy to have us there, and gave us a discount on the fee for the use of the Pavilion and left the exit gate open all night for our convenience. Scott also thanked the key people who worked to make Field Day so successful. We received a total of three spots on two of the local TV stations, and had a number of official visitors. Scott estimated attendance at 55.
- Our old generator was offered for sale to club members for \$400.00.
- Randy, AJ4HX announced they had completed the changes to the Club By-Laws and presented the copy officially to Scott so it can be reviewed by the Club Board.
- Phil, K4PO, cleaned out the club shack and the rear table was loaded with items to be auctioned off
- Ken, KJ4CJP, gave a nice presentation of the pictures that he sent to the ARRL to verify our accomplishments of Field Day. It was recognized how beneficial it was to have an official photographer during Field Day. We claimed 4768 points for Field Day.
- Scott presented a spread sheet of the expenses for Field Day.

- After the break Scott began the auction of the excess inventory that Phil had cleared out of the club shack. I heard we made close to \$500.00 from the auction, un-officially.

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August 20, 2012

- The meeting was led by Ken Kohnke, KJ4CJP.
- Lew, K1AZE, made a brief announcement about the Ham Fest.
- Since there was no other business scheduled for the evening, Jim Burns, N4CIO, asked if anyone could and would, give a brief introduction on working Satellites. He was interested in what equipment was needed, and other general information as to how you would go about getting started. Rik Dol, KU4PY, was kind enough to gather his thoughts and give a nice presentation on how a new Ham would get started. He was able to suggest some software for tracking and websites for finding the schedules of the different Satellites, and their frequencies. For a spur of the moment request, Rik did an excellent job of giving us “newbies” an idea of what we needed to do if we wanted to work the birds.

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September 17, 2012

- Special guest, Amanda Speirs, representing the American Cancer Society’s “Making Strides for Breast Cancer Awareness,” we listened to her invitation to participate in this year’s walk, to take place at Huntington College on Saturday, October 13. Last year’s walk had 1600 walkers and raised \$70,000.00. They anticipate 2000 walkers to take part this year.
- Scott, W4SPA announced that Howard Marshall, W2SKP, resigned from ARRL VE testing, and asked for any volunteer to take up the position.
- Scott announced that the Montgomery Bicycle Club would be putting on the “Glassner Autumn Challenge,” and requested anyone interested in volunteering. It would take place on Saturday, September 29, starting at the Pintlala Baptist Church, and would be led by Otto, N4UZZ.
- We also had a presentation regarding the upcoming “Alabama Lighthouse Weekend,” which was to bring awareness of three Alabama lighthouses and their need for financing for their repair and maintenance.
- It was announced that the Ala-Set would take place on the 1st weekend of October and would operate

Nets on the 84 and 18 repeaters and would use D-star and Simplex as well.

- Tom Bray, WB8COX gave an update on the condition of the 6 meter repeater, who said the transmitter was working okay, but the receiver still had some problems to be worked out.
- Scott, W4SPA, presented a map of the Shriner's property and explained his plan at this time for setting up the parking lot, and the plan for the Hamfest.

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October 15, 2012

- Scott, W4SPA, gave us a rundown on the Awareness for Breast Cancer walk that was held at Huntington College. It was a 5K walk and had an attendance of around 2000, and raised approximately \$85,000.00 for the Cancer research. Due to the rapid growth of the event, next year it will be held at the Montgomery Amphitheater, located downtown Montgomery near the Bus terminal.
- Scott, W4SPA, once again asked for a volunteer to take over the ARRL VE testing as we are not doing any testing at this time.
- Scott, W4SPA, informed us that he had talked to Tom Bray, WB8COX, in regards to the progress on the 6 meter repeater, and it was decided that Tom would hold off on any further attempts to work on it until after the busy Holiday season. The club agreed to leave this task with Tom and he could continue after the holidays were over.
- Scott, W4SPA, announced that the Montgomery EMA would be holding CERT classes at the Red Cross building on October 16, 2012, and that he planned on attending in order to promote the advantages of having Amateur Radio operators in their organization.
- As of this date there had been 15 Ham Fest T-shirts ordered and the cost will be about \$20.00 and the shirts will have a pocket like the Field Day T-shirts had.
- By club vote it was decided we would once again hold our Annual Awards Banquet/Party at the Golden Corral on the 3rd Monday in December, which is December 17, 2012. Everyone including family members and friends are invited and the cost of dinner will be covered by each attendee.
- At 7:30 pm, Lew, K1AZE presented us with Ham Fest flyers to hand out to the public, and he also requested additional help with Vendor check-ins.

They are needed on Saturday from 8 till 9 am. He also said we were doing well on table sales, and about 57 tables have been reserved so far. The cost of a table is \$15.00. Scott also asked that we get in contact with MFJ and offer them free tables if they would attend our Ham Fest and set up a table or tables.

- Scott, W4SPA, had been given a bunch of old wooden pallets which he will use to make stands for the parking lot which will be used to tape off areas for the boneyard and vendor parking.
- All staff members are asked to bring HT's to the event so we can stay in touch with each other.
- At 7:45 pm we began taking nominations for Club Officers for the year 2013. The nominating process will remain open till the November meeting when elections will be held. The nominations made during the meeting are as follows:
 - Trustee Fred Springall, KR4YK (replacing Rik Doll, KU4PY)
 - Publicity Officer Bruce Jenkins, KI4OZW
 - Secretary Rick Cochran, AJ4ZZ
 - Treasurer Jim Cooke, AK4FP
 - Vice-President John Garmin, WN9J
 - President (Open at this time)

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August 2012 Column

By Dan KB6NU

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Is Amateur Radio Too Focused on EmComm?

On the HamRadioHelpGroup, a Yahoo Group mailing list for anyone looking for help with anything related to amateur radio, one ham asked "Over lunch today I read the September issue of QST, which is heavily EmComm oriented. The articles were interesting, but the op-ed piece on page 98 seemed a little over the top to me...Has this focus of this intensity always been a part of ham radio and I just wasn't expecting it? How has it evolved over the years?"

To answer the question, another replied by posting Section 97.1, namely the principles behind the amateur radio service:

Sec. 97.1 Basis and purpose.

The rules and regulations in this part are designed to provide an amateur radio service having a fundamental purpose as expressed in the following principles:

- (a) Recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications.
- (b) Continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art.
- (c) Encouragement and improvement of the amateur service through rules which provide for advancing skills in both the communication and technical phases of the art.
- (d) Expansion of the existing reservoir within the amateur radio service of trained operators, technicians, and electronics experts.
- (e) Continuation and extension of the amateur's unique ability to enhance international goodwill.

He went on to say, "I think that 97.1(a) addresses your question."

I like that reply a lot. First, it shows that providing emergency and public-service communications has been a part of amateur radio since its beginnings. Some hams are extremely focused on this, and I applaud them. In my opinion, the piece referred to in the latest QST was not over the top.

I think, however, that some hams do sometimes go overboard on emcomm, and act as if it's the only reason that ham radio exists. It's not. As you can see, the rules describe five different "purposes" for amateur radio. Emcomm might be the first, but it's only one of five. We need to keep in mind the other four as well. I personally like (e), and would like to see amateur radio actually do more to promote international good will.

What do you think?

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When he's not pondering the place of emergency communications in amateur radio, Dan, KB6NU, writes books about ham radio. He is currently feverishly trying to finish the No-Nonsense Extra Class License Guide. You can read excerpts from this upcoming book on his website, <http://www.kb6nu.com/>. You can e-mail him with comments, questions, compliments, or brickbats at cwgeek@kb6nu.com.

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The 1950s, Amateur Radio's Golden Era

By Lew Nyman K1AZE

Well, well, ham radio is now 100 years old! Yes, the FCC began licensing hams in December of 1912 although some were broadcasting prior to that time utilizing spark gap transmitters. Amateur radio operators have been the pioneers of radio development and innovation throughout the years. Technology has

certainly changed the face of our hobby. And what is most exciting is that our numbers have been increasing. Interest is on the rise and it is possible that digital modes may be a factor today. No doubt the volunteer examiner program and no code licensing have contributed enormously to the boom in recent years as well. In spite of the no code licensing, I'm happy to report that CW is still very much alive and well.

Amateur radio has had many great years of growth. But I would like to focus on what I like to call the golden era of ham radio, the decade of the 1950s and into the 1960s. I have been licensed for 56 years and had the privilege and excitement of operating in the 1950s as a newcomer. You might ask why I call those years the golden era. There were three major factors for this assessment. First, many of you who know your ham radio history know that during World War 2 amateur radio operators in the United States were silenced by our government for security reasons. Hams were off the air until after the war ended. It was a total blackout. So, by 1950 many hams had with great excitement returned to the airwaves. Secondly, HF propagation was at an historic high as a result of a phenomenal solar cycle. The bands were jam packed with signals from end to end. Third, there was a tremendous influx of newly licensed hams with the introduction of the novice class license. It was the perfect storm for amateur radio, particularly in the U.S.

Radio manufacturers jumped on the bandwagon at that time with a proliferation of new American made ham gear. Many of us are very familiar with names such as R.L. Drake, E.F. Johnson, National Radio, Hammarlund, Hallicrafters, Clegg, Ameco, Heathkit and many more. Today, these radios are prized collectables. One can come across many of these radios at hamfests throughout the country and many are still on the air. They all contained vacuum tubes. Solid state was non-existent. Many hams had even assembled their own "home brew" radios, since parts were still readily available from many suppliers. There was also a proliferation of military surplus radios from the war which were made available to the consumer.

In 1951, the FCC had restructured licensing into six named classes. Most notable was the new Novice class entry level license. On HF it permitted code transmissions only, with a maximum power of 75 watts

input to the transmitter's final amplifier stage. The transmitter had to be crystal controlled, one crystal for each specific frequency. Novices initially could transmit Morse code only on small segments of the 80 and 11 meter bands. By 1954 Novices had CW privileges on 80, 40 and 15 meters and voice privileges on 145-147 MHz. To qualify for a Novice license, a candidate would have to pass a 5 word-per-minute (WPM) Morse code test (send and receive) and a 25 question multiple-choice test. The test was first given at an FCC field office. From 1954 on it was administered by any higher class licensed ham who then sent the exam to the FCC for grading. The Novice Class license for several years was valid for only one year and was non-renewable. The Novice was expected to move up to General class to stay on the air. Tens of thousands of new Novices hit the airwaves and many did eventually upgrade.

My experiences as a new Novice were quite memorable. I had a very crude home brew station which took me many months to assemble. I was a young teenager with very limited funds. When my Novice ticket finally arrived from the FCC (it took 12 weeks) my station was complete and ready to go. It consisted of a 12 watt 40 meter CW transmitter with one crystal and a three tube Knight Kit Space Spanner regenerative receiver and a dipole antenna. The receiver was quite broad banded and it seemed like I was hearing the entire Novice band with the tuning dial set in one position. Hearing as many as two dozen CW stations at once made it quite difficult to copy most of my contacts. Over 50% of my QSOs ended in lost contacts. But, I'll always remember my first contact. I was living in the Boston area at the time. After sending out countless CQs, I finally heard my call sign. The station calling was KN2YXY (the N in the call sign prefix indicated Novice class) and he was from Freehold, New Jersey! Wow! DX! My hand was shaking and my palm was sweaty as I was tapping on my military surplus J-38 CW key. I was desperately trying to send my mailing address so that I could get his QSL card, which I eventually did receive. It's very special and I still have it to this day. In fact, I still have my original Novice station today. To me it's priceless.

Even though new Novices were supposed to be proficient at sending and receiving 5 WPM, most of us were at the 2 to 3 WPM speed during our on the air contacts. I guess it was primarily nervousness. A typical

transmission would last at least 15 to 20 minutes and consist of transmitting an RST report and name and address. And many words were repeated three times. "Name name name is Bill Bill Bill. RST RST RST 469 469 469". RST reports were not overly generous but they were certainly quite accurate none the less. No one ever got a 599. The other station would respond (if he was still on frequency) with "RRR OK OM. Solid copy. But, please repeat ur name, QTH, and my RST". What!

A lot of my contacts were made starting at 4 o'clock in the morning. That was because there was significantly less QRM on 40 meters than during the evening hours and also signals were coming in from greater distances. But, all my contacts were still east of the Mississippi. My folks thought I was crazy. So did my brother. But, I was having a thrilling experience, anyway. And that's what it was all about. I did have a problem staying awake in school, though.

I must admit that in my old age I've gotten a bit lazy. I don't build as much as I used to. I have a very modern high end made in Japan HF radio with features that are beyond my ability to comprehend. Unfortunately, this radio like all radios of today is lacking something I sorely miss, toggle switches. Not one toggle switch! Whatever happened to toggle switches? But, at least it's not crystal controlled.

I'm sure ham radio will continue to thrive for another 100 years and beyond. The radios will change, of course, but the excitement will never fade. The ionosphere will always be there. Happy ham radio anniversary and best DX OMs.

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Digital Modes

By Bobby Chandler N4AU

Have you tried any of the digital modes lately? Well, there is some very interesting stuff out now that is a pleasure to use and experiment with. There are some free software programs, and some commercial programs that all do a fine job. Some of the free programs are FLDigi, which was written on a Linux platform, and ported over to Windows, and I use it mostly for the common digital modes. Hamlogger (Logger32) is also

an excellent digital program and I use it primarily for logging since it lends itself to easy QSL swapping, especially for DX QSLs using the Bureaus. A commercial program I use is MIXW, but it is not well supported but does an excellent job and I use it in digital contest primarily and also link it to my JT65HF program for logging contacts.

These common digital programs operate many of the digital modes like PSK31 (63,125 etc), RTTY, Olivia, Contestia, MFSK, HELL, Domino, MT63, CW (yes they copy and send CW) and others. There are some very robust modes available that allow operation with very marginal conditions. Some of the local hams have tried almost all the modes here. There is new experimental mode that I haven't tried yet called PSK2K. I will get around to trying it one of these days.

Several local hams are using , and really enjoying, the JT65-hf program which allows contacts with very limited power. I have made contacts with milliwatts and consider anything over 5 watts as excessive. This mode is a contact mode and not good for an old 'rag chew'. It requires tight synchronization of the clock in the computer since transmission are in 1 minute increments (odd or even) and about all the info is calls, grids and some other minor info, but it is a challenge to work all states, dx etc with this mode. One local ham (KK4A) has confirmed 50 states on several bands with this mode and he is antenna challenged (covenants) and uses a wire strung around his privacy fence for an antenna.

I have attached some screen shots of some of these programs and if you get into any of them, there is plenty of local help available to assist you, as well as many forums online.

You need a computer interfaced to your radio via a soundcard to use them and other options that are not required, such as CAT control of the radio from the computer which puts your radio on the correct frequency and mode for the type of operation, but this can be done manually if you don't want the Computer Aided control of the radio. Most of the programs have this built in, which are programmable to your radio.

For PSK operation about 20-25 watts is all that is needed, and I use 40 watts for RTTY, but many stations use upwards of 200 or more watts on RTTY, which is ok if you are into high power operation. Just remember, these are CONTINUOUS DUTY transmit modes and you should keep the power below the recommended power for your radio. A good measure, or suggestion, is to not run anything greater than the suggested AM mode power for your radio.

For good linearity on the PSK mode, I run the radio at full 100 watts, but lower the audio for the desired power out. Since RTTY is single tone (Mark or Space) you can drive it even into ALC, but don't need to exceed the continuous duty power for your radio.

Some Digital Modes Screen shots on following pages:

The screenshot shows the N4AU software interface. At the top is a menu bar with options: File, Edit, Mode, Commands, View, Logging, Waterfall, Text, Hardware, Help. Below the menu bar is a toolbar with buttons for Reply, CQ, 2 X 3, End QSO, Quick, Brag, Bye, Log, N4AU x4, QRZ?, His de My, and Align. The main window is divided into three sections:

QSO	Mode	Freq	Date	UTC	Call	RST_Sent	RST_Recv	Dom	Name	Notes	Loc
23115	JT65	28076.000	09/02/2012	15:13:00	K4TJM	-05	-01	AL		Trnx JT65 cont	EM62
23116	JT65	24917.000	09/02/2012	17:23:00	XE1GK	-07	-08		Ignacio	Trnx JT65 cont	DL70iq
23117	JT65	18102.000	09/03/2012	15:38:00	N1MGQ	-15	-09	MA	GORDON	Trnx JT65 cont	FN42dn
23118	JT65	18102.000	09/03/2012	17:59:00	KE5LLM	-16	-17	CA		Trnx JT65 cont	DM13us
23119	JT65	18102.000	09/03/2012	18:06:00	K9WZB	-06	-09	AZ		Trnx JT65 cont	DM24ul
23120	JT65	18102.000	09/03/2012	18:21:00	N7AMA	-08	-10	AZ		Trnx JT65 cont	DM33
23121	JT65	7076.000	09/04/2012	12:00:00	VE3EQV	-15	-15			Trnx JT65 cont	FN03
23122	JT65	7076.000	09/04/2012	12:13:00	WB9DTX	-06	-06	IN		Trnx JT65 cont	EM79
23123	JT65	7076.000	09/05/2012	11:26:00	N1MGQ	-19	-09	MA	GORDON	Trnx JT65 cont	FN42dn
23124	JT65	14076.000	09/06/2012	18:25:00	W1MA	-03	-09	MA	MATTHE	Trnx JT65 cont	FN44
23125	BPSK6	14071.425	09/06/2012	18:35:49	YU7AU	599	599		Ljubisa		KN04hu

Below the log table is a status bar showing: Serbia: --- last QSO: 15m RTTY 1/8/2012 3:09:00 PM [45 Deg 8399 km [5219 miles]]

The text window displays the following decoded text:

```

YU7AU YU7AU YU7AU qrz?
YU7A
...YU7AU YU7AU de N4AU N4AU N4AU K
t p@ee □ pne t t
...YU7AU YU7AU de N4AU N4AU N4AU K
p RA3V de YU7AU
HI. dr om TU for call !
ur 599 599
Name: Ljube Ljube
*** AGE 68 Years !
Grid: KN04AU KN04HU
HW?
RA3V de YU7AU k N
n enC e oeQot na

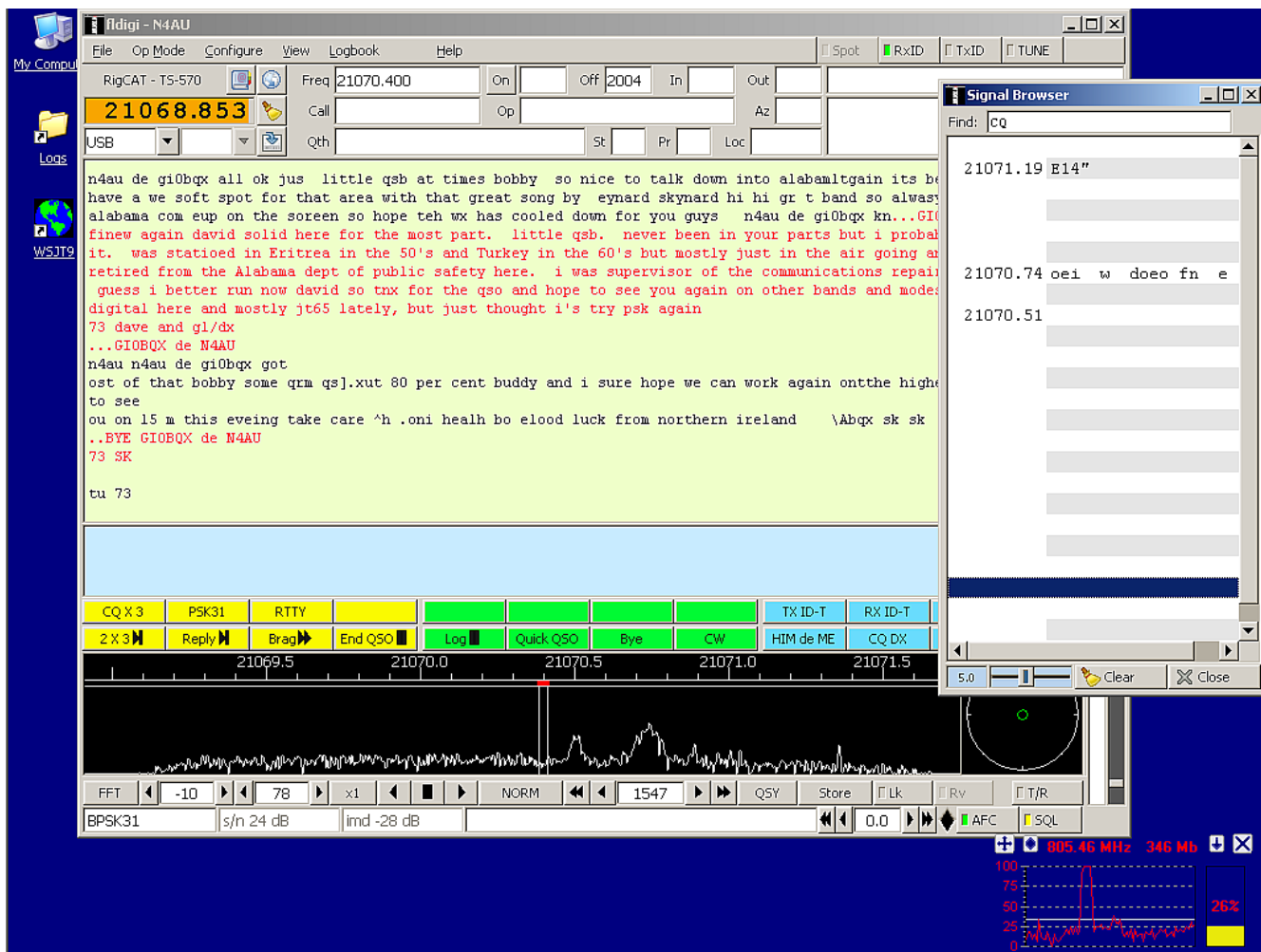
```

The spectrum display at the bottom shows a signal centered at 14071 kHz. The status bar at the bottom of the spectrum display shows: YU7AU (Ljubisa, Serbia) RX Sqr AFC Lock Snap 1424.9 Hz IMD: -26 dB BPSK6 09/06/2012 18:35:49

MIXW in the PSK31 mode

In MixW you can select either a waterfall or spectrum display to see the signals on receive. I personally like to use the spectrum for it's easy to see any distortion in the signal which happens if the radio is not linear due to overdrive. PSK modes are especially susceptible to overdriving on any of the software so audio needs to be kept below the level that triggers the ALC on the radio. Once ALC is triggered the signal broadens and spurious radiation and Intermod products are generated. This can also occur in the sound card and harmonics of the audio will be generated at times. I try to use the upper section of the bandpass, but if the signal is clean lower frequencies are fine.

The colored blocks at the top of the display are macros, which allow you to set up "canned" messages and do radio control. You can store frequently used messages in these macros and can activate the transmitter with commands in them which makes it a click ("look ma no hands") type of operation which is great for contesting. The colors in the decoded text tells you if it is a needed call, or a dupe, which is all set up by the operator. There are 48 macros available and you can have as many as necessary by renaming each set and loading the desired set. Your log can be displayed as above.



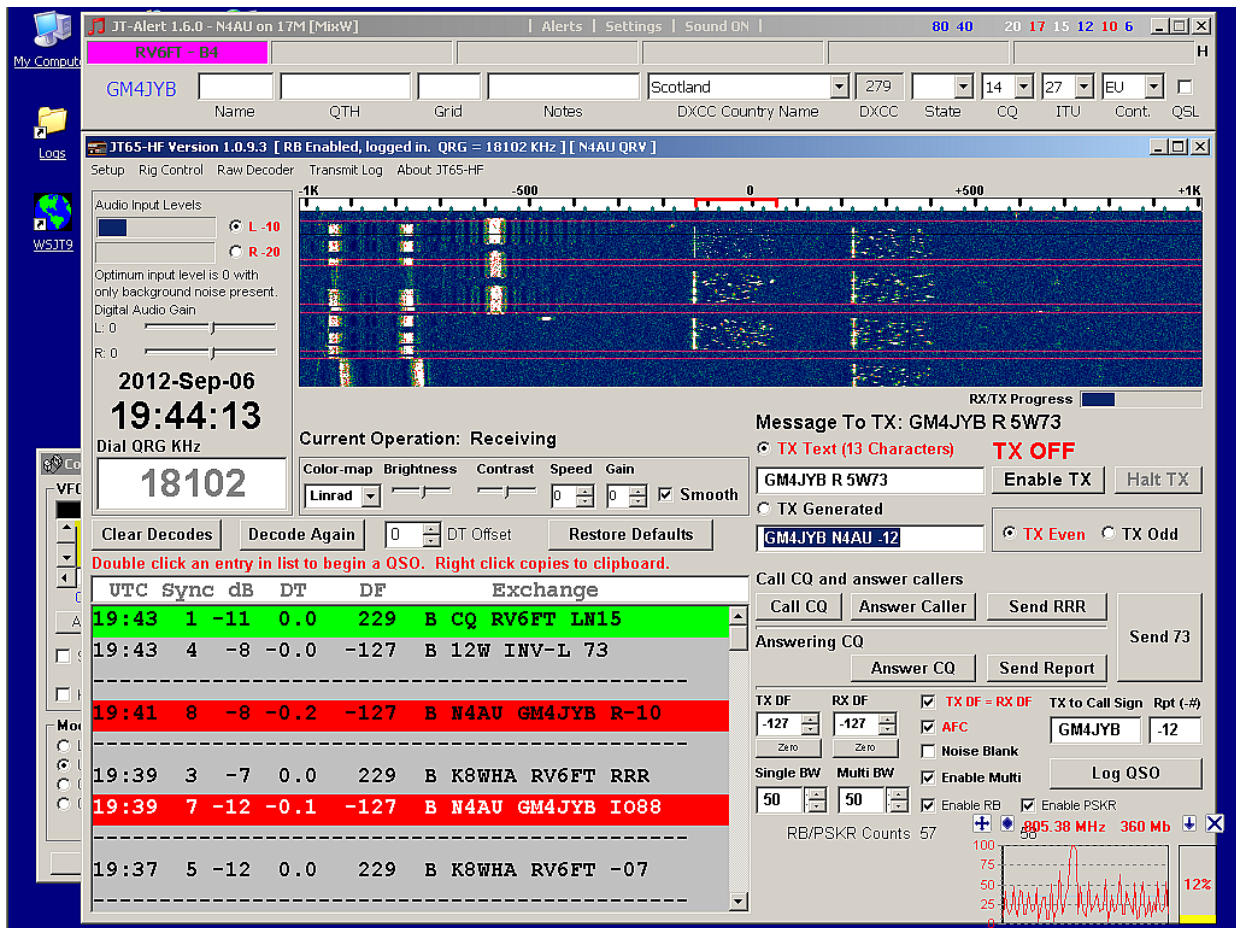
FLDigi in PSK31 mode

FLDigi is very similar to MixW and I use it for all my basic digital work. There are many modes available in it as there is in MixW. There are also 48 macros and they can be displayed in 1 line or 2 lines and can be displayed in several positions on the display. There is also a waterfall or spectrum display and audio drive precautions apply to this the same as MixW.

The icons at the top, just right of the frequency display, let you set up your memories for frequencies, modes, radio settings and are selected by clicking on the memory, which sets the radio and modes in the program (more “look no hands”) operation. The log can be continuously viewed if you want and it will export adif, csv, cabrillo and others.

The display on the right is a “PSK Browser” which lets you see decoded signals in the complete bandpass. If you see one of interest, you can click on it and your radio and program will be tuned to that signal. You can put an alert color for any phrase to alert you, for example, CQ is the default alert and defaults to red on a cq. Mode, S/N, and IMD are shown on the lower left of the display.

The receive box is showing a QSO between Me and a station in Ireland. My text is in RED.



JT65hf with JTAAlert

JT 65 is basically a contact mode and is not a real ragchew operation. The signals in the waterfall on the right side, from the red bracket up, are jt65 signals. The faint red horizontal (they are brighter on the real display) and the minute dividers. Transmission is in 1 minute increments (tx 1 min rx 1 min). The broad signals on the left are RTTY and PSK signals which just happened to be there when I made the screen shot. This shows an exchange I had with a station in Scotland.

Note the colors in the decoded text. Red means the station is calling me, green is a cq and gray is a qso in progress. The purple color at the top means I have worked that station before on this band. All the colors (and audio alerts) are programmable. Audio alerts you to your call, CQ, Needed states etc.

If someone calls you, just double click the red box and it sets up your exchange with the station. The program knows what the exchange should be by the message contents. All stations in the bandpass are decoded (provided they are clean) except when you're in QSO, and this is selectable in the setup.

Very accurate timing is necessary for this mode and we use a program called Dimension 4 to keep the clocks synchronized. I use a program called Meinberg NTP on my computer.

MEMBERSHIP APPLICATION

Year _____

Montgomery Amateur Radio Club – PO Box 3141 – Montgomery, AL. 36109

Renewals enter, name and callsign and any changes in status.

***Note: Senior Members** over 70 please send in application to keep roster updated.

New Members enter all available information.

Name: _____ DOB: _____ Call: _____ Class: _____ ARRL Member(Y/N) _____

E-mail: _____

Family Members

Name: _____ DOB: _____ Call: _____ Class: _____ ARRL Member(Y/N) _____

E-mail: _____

Name: _____ DOB: _____ Call: _____ Class: _____ ARRL Member(Y/N) _____

E-mail: _____

Name: _____ DOB: _____ Call: _____ Class: _____ ARRL Member(Y/N) _____

E-mail: _____

Class of License: N= Novice, T= No Code Technician, T+= Code Technician, G= General, A= Advanced, E= Extra

Address: _____

City: _____ State: _____ Zip: _____

Home Phone: _____ Work Phone: _____

Indicate Membership type below. Membership fees are *due every January 1st*. There is a 60-day grace period.

Family membership is for immediate family with 2 or more amateur radio license holders *residing at the same address*.

Associate Membership is for individuals who *do not have* an amateur radio license, but are interested in the activities of the club and are preparing for exams.

Senior Membership is for an amateur age 65 or older.

Check type of membership:

_____ Single Membership (\$25 per year)

_____ Family Membership (\$40 per year)

_____ Senior Membership - age 65-69 (\$15 per year)

_____ Senior Membership - age 70+ (no charge)

Associate Membership (\$10 per year)

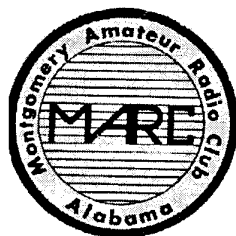
The Montgomery Amateur Radio Club

Public Service Since 1938

Amateur Radio

www.arrl.org

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Montgomery, AL 36109-0141

