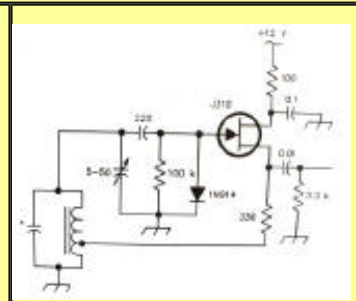


2009

Local Oscillator



July

Mesilla Valley Radio Club

A [pdf file](#) of this issue is available. It should print fairly easily. If you do not have the free pdf file reader, go to <http://www.adobe.com>

Coming Events

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Date	Event	Time
Sun	Slow CW Net 3.575	3:30PM
Sun	CW Net 3.375	4:00PM
M - F	6 m FM net 52.540	6:00AM
T, T	Informal meet Wal-Mart (E)	10:00AM
M, W, F	Informal meet Wal-Mart (W)	10:00AM
Mon	WTRA Swap net 146.88	8 PM
Wed	N5BL Net 146.64	6:45PM
June 27 - 28	Field Day - Club House	Noon
July 4	NO Breakfast - Club House	8 AM
July 4	NO Business - Club House	9 AM
July 7	Builder's Group - Club House	7 PM
July 8	NO Board meet - Club House	7 PM
June 16	Builder's Group - Club House	7 PM
Aug 14-15	Duke City Hamfest	
Sept 5	Alamogordo Hamfest	
Oct 3	Pecos Valley ARC Swapfest	

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Thanks to Those Who Helped

More information at <http://swantenna.com>

Southwest Antennas & Accessories

<http://swantenna.com>

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The space below is used for acknowledgements and maintaining the site.
Send comments, suggestions, and requests to [Alex. F. Burr](#) or send e-mail to [aburr @ qzxservices.com](mailto:aburr@qzxservices.com).
Technical assistance, net access, design, and maintenance provided by qzxservices.com

THE ARTICLES FOR THIS MONTH

PRESIDENT'S CORNER

KC5HFJ

The usual breakfast and business meeting will NOT be held in July.

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CLUB NOTES

KD5SSJ

None received

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FIELD DAY

AD5LJ

1. MVRC field day activities will be held at the clubhouse starting at noon on Saturday 27 June. We will support 24 hour operations if anyone wishes to operate between midnight Saturday and 0700 Sunday morning. If no one wants to operate during this time period, we will close the clubhouse at midnight and reopen at 0700 Sunday.

2. Soft drinks and snacks will be available during the event. Dinner (hot dogs, hamburgers, etc) will be served Saturday evening starting about 1730. If you intend to join us for dinner, please let me know so we have an idea of how much food to buy.

3. Our intent is to operate our stations on emergency power. If this fails we will revert to commercial power. We will attempt to use both of the HF radios in the radio room. So we will be 1E/2E category.

4. Last time I checked, the clubhouse was listed in the Dona Ana records as an alternate EOC. If we can confirm this and get permission from the powers to be to activate an alternate EOC, we will compete in class 1F/2F.

5. WE NEED OPERATORS and LOGGERS. If you would like to participate, please [email me](#) with your preferred operating times. If you are a night owl, please consider working the club station Saturday night/Sunday morning.

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BUILDERS GROUP INFO KD5SSJ

I brought a documentation of the Arduino based QRSS system that was demonstrated last meeting. Evan has been busy working on the hardware that I demonstrated last week and will bring his latest efforts. I have not had very much time to work on this problem but have had a couple of weeks of intense debugging of a closely related chip and the GCC compiler.

Randy got a couple of loose ATmega168 chips and I got 10 pieces of the ATmega168P. I was going to program the bootloader into my new chips and trade him a couple of pieces, and then we discovered that the Arduino system needs a slight modification to work with the "P" type chip. I have not made the changes but Randy did some research and we know how to fix this problem.

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HAM RADIO LORE W3GWU

(An outline of a talk which might have some useful information for many.)

I. Ham radio background

1. Amateur radio licensing by FCC, based on written test of simple electronics, operating practices, and FCC laws.

Ham licenses no longer require proficiency in Morse code.

About 650,000 current licenses.

2. Frequencies allowed, small band portions of em spectrum:

HF: mainly 80, 40, 20, 15, and 10-meter bands

VHF: 6 and 2-meters: “2 meters” is 144-148 MHz.

UHF: 70-cm and on up into microwave bands.

3. emergency communications, electronics hobby, experimentation

ARRL: “Amateur radio is a scientific hobby.”

4. repeaters on UHF and VHF bands

5. satellite bounce, moon bounce, ham satellite repeaters, etc.

II. Emergency communications

1. emergency power, off the grid

2. mobile as well as stationary

3. nets, passing messages, practice, preparedness

III. Morse code

1. E, I, S, H, T, M, and O, etc.

2. short long, dot dash, dit dah

3. SOS: didididahdahdididit

IV. Operating principles

1. frequencies, bands, power and mode limitations, rules

2. modes: cw (Morse code or “continuous wave”), FM voice, SSB, RTTY=radioteletype, PSK, SSTV=slow scan TV, and others.

3. phonetics: W3GWU is “whiskey three golf whiskey uniform”

4. abbreviations: CQ, DX, 73, K, OM, YL, FB, HI

5. signal report RST=readability (1-5), strength (1-9), and tone (1-9). Voice example: report 5 9 or “5 by 9”

6. clock time: military style eg. 1432 hours. Also prefer UTC=GMT=Z=Zulu time.

7. shack, rig, handle, work, copy, sked, net, traffic, location QTH

8. International Q signals (see next side)

V. International Q signals, originated for cw, still used on voice. Hundreds on complete list, here are a few in common use.

QSO: contact, conversation; “eyeball QSO”

QSL: confirm contact; QSL card

QTH: current location of rig

QRZ: listening.

QRT: stop sending; “silent key”

QRM: interference

QRN: static

QSB: signal fade

QSY: change frequency

QRP: low power

QST: call to all amateurs

Strictly speaking, Q-signals are statements: “QSL” means “I confirm contact.” With a question mark, the Q-signal is interrogative: “QSL?” means “Do you confirm contact?”

Sample use on cw: “FB QSO OM PSE QSL QSY UP 15KHZ QRZ DE W3GWU K” On voice: “Fine business QSO, old man. Please QSL. I will QSY up 15 kilohertz. I will be QRZ on the higher freq. This is W3GWU, over.”

VI. Digital radio demonstration using AFSK

1. handheld transceiver for 2 meters, on freq 146.55 Mhz simplex.

2. laptop computer with built-in sound card.

3. digital interface hardware (\$60) and software (free).

4. Digitally transmitted information happens by altering the carrier wave into at least two states. RTTY and PSK (phase-shift keying) are two well-known forms. Here we are using an interrupted audio tone, generated from the

computer's sound card, to modulate the carrier FM signal, called "audio frequency shift keying" (AFSK).

5. To transmit, produce text in the software interface window, which is converted to a digital code, generating an interrupted audio signal through the sound card. The audio signal triggers the hardware digital interface to turn on transmitter (through PTT switch) and frequency-shift the FM signal transmitted.

6. To receive, frequency-shifted FM signal is passed from receiver to hardware digital interface, sending interrupted audio to the sound card, translated by software from code into text, which appears in the screen window.

7. Advantages: relatively error-free transmission of messages, recorded automatically at receiving station, sent multiple times without alteration if necessary, and stored in files or printed from the computer.

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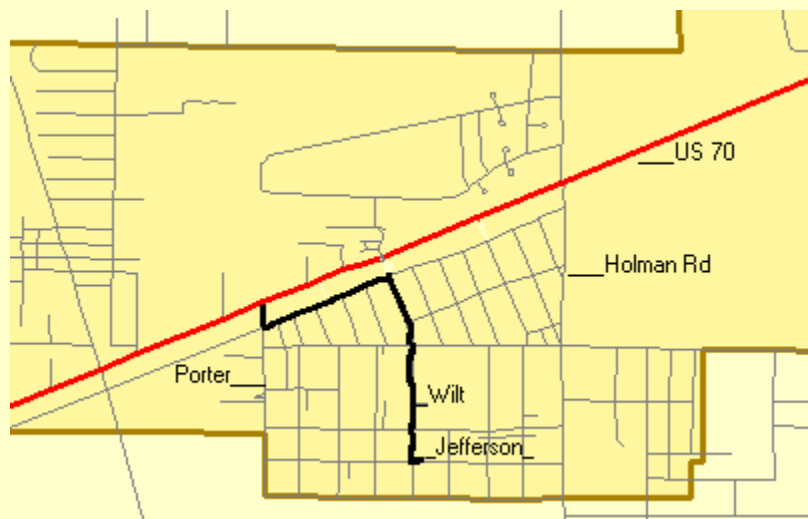
TREASURER'S REPORT KI5FJ

Because the Local Oscillator had to be sent early due to Field Day and the editor's trip, this report is not yet available.

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CLUB INFORMATION

The MVRC Clubhouse is located at the intersection of Wilt and Jefferson in Hacienda Heights. To find the clubhouse, set your destination on your GPS receiver as 32 degrees 22.961 minutes and -106 degrees 41.44 minutes. If you don't own a gps, take the Porter exit on US 70. It is about 5 miles from the I 25 interchange, near the firehouse. Almost immediately south of the south frontage road on the south side of US 70, turn left toward the mountains until you come to Wilt. Turn right. There is a jog in the road, but at 0.35 miles you should come to Jefferson. If you can't see the tower and beam, you shouldn't be driving. The treasurer would be delighted to receive your contribution for landscaping and furnishing.



Officers

Office	Name	Call	Phone	e-mail
President	Perry Welch	KC5HFJ	373-9171	perrywelch@hotmail.com
Vice-President	Cash Olsen	KD5SSJ	382-1917	kd5ssj@arrl.net
Secretary	Jack Lemons	N5PK	644-7207	jack_N5PK@hotmail.com
Treasurer	Joe Ostrowski	KI5FJ		ki5fj@arrl.net
Board Members	Alex. Burr	K5XY	522-2528	k5xy@arrl.net
	Bob Bennett	AD5LJ	382-0148	rbennett1@comcast.net
	Henry Schotzko	AD5FE	AD5FE	schotzko@comcast.net
	Kevin McNelis	K5KMC	571-7326	kmcnelis@nmsu.edu
	Robert Truitt	KE5OFK	649-4173	robhtruitt@zianet.com

The newsletter is always looking for articles and notes of interest to the members of the Mesilla Valley Radio Club. Please send them to Alex. F. Burr, K5XY, Editor, MVRC Local Oscillator, 695 Stone Canyon Drive, Las Cruces, NM 88011. Small personal ads from members will also be published. It would be helpful if submissions would be made in a machine readable form. Windows readable disks are welcome. Files can also be sent to the Internet address k5xy@arrl.net. The club maintains a web site at <http://www.zianet.com/mvrc>.

JOIN THE CLUB

To join the Mesilla Valley Radio Club, renew your membership, or to support the repeaters, please print, cut out, and complete the form below. Send it with dues (\$35 single, \$45 family per year, add \$10 to receive the newsletter by US mail instead of e-mail) to: Treasurer, MVRC, Box 1443, Las Cruces, NM 88004.

Name	
Box or street address	

Club Information

City	
State	
Zip	
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