www.hcarc.us FEBRUARY 2014 Toms River, NJ

How to Read a Schematic Like a Pro

At our February 6 meeting, we'll have a discussion about schematic diagrams entitled, "How to Read (or Draw) a Schematic Like a Circuit Designer." John Roberts KQ4WR will present a wide variety of schematics, how to use the Internet to obtain free copies of service manuals and spec sheets, and point out some design trends.

For Your Calendar

Wednesday January 28 @10am	Board Meeting
Monday February 3 @noon	Lunch at HC Diner
Thursday February 6 @7pm	Club Meeting
Wednesday February 12 @7pm	License Exams
Monday February 17 @noon	Lunch at HC Diner
Wednesday February 19 @ 7 pm	ARES at OC Sheriff's Office

Happy Birthday to:

Warren Keay KC2SSQ



Happy Anniversary to:

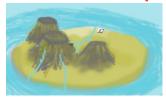
Murray and Shirley Goldberg



NEXT MEETING:

Thursday February 6 at 7:00 PM
Bldg A, Meeting Rm. #1
Holiday City South Clubhouse
Santiago Drive at Mule Road
Toms River, NJ

Amsterdam Island DXpedition



Yes, the expedition to that dormant volcano in the middle of the Indian Ocean is on the air. Check out the www.amsterdamdx.org website. Listen to audio recordings of the group being interviewed. I found the interview of K4UEE was particularly interesting, as he included a description of the facilities.

The island is circular, a couple miles across, with mountains mostly toward the southwest, and some buildings in the northeast. The buildings are occupied by researchers studying climate, eco-systems, volcanic activity, earthquakes, and stuff like that. They have agreed to share their kitchen and living spaces in return for help with their housekeeping duties (including KP), and seem to be happy to have people around besides their little group. After all, it's a 9-day ocean voyage to nearly anywhere else.

There are two stations sites, one at the research center, and the other about 600 feet up the 1700 foot mountain, including antennas for 160 and 80 meters. Operation plans include SSB, CW and RTTY on all HF bands:

CW on 1.826.5, 3.523, 7.023, 10.115, 14.023, 18.079, 21.023, 24.894, and 28.023.

SSB on 3.790, 7.082, 14.185, 18.130, 21.285, 24.955, and 28.485.

RTTY on 3.580, 7.045, 10.142, 14.080, 18.099, 21.080, 24.912, and 28.080.

Like most DX stations, they will be listening a little higher than the frequency on which they will be transmitting.

Dues are Due

\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$

Our club counts on its members for financial support, and dues were due January 1. But a few members seem to have forgotten. If that means you, please call our friendly treasurer, <u>Larry Puccio</u>, 22 Sabinas Street, Toms River, NJ 08757 (732-349-2950). Let's keep him friendly. Thank you.

QSL?

(literally "Can you send me verification of this contact?")

by Russ Young WA2VQV

One thing the article in last month's SKYHOOK didn't mention is the amount of turn-around time you can expect using the bureau. At best it takes at least six months and more often than not, years to receive a DX card. I have received cards that took ten years to arrive.

I once received a QSL card via the bureau from a Ukrainian ham who wrote on his card "PLEASE UR QSL CARD BEFORE I DIE".

I took that as his indictment of using the bureau.

Some countries require hams to belong to their national organization (i.e., DARC, Deutscher Amateur Radio Club, Germany's equivalent to ARRL) to use their bureau and some countries do not use a bureau at all.

However, if you are willing to wait, it is the least expensive way to receive DX QSL cards.

If you need a specific card, say, for an award, you are better off sending your card direct with an SAE (Self-Addressed Envelope) and return postage in the form of "green stamps" (US dollar bills) or IRCs (International Reply Coupons).

IRC's cost about \$2.20 and many countries' postal systems accept them in trade for a first class airmail stamp.

Because of world-wide rising postal rates, 2 or even 3 green stamps are usually required. Unfortunately, postal theft does exist.

When QSLing direct I use two #10 security business envelopes. They are large enough to enclose the largest DX QSL card and (hopefully) look like a business letter in transit and not a QSL card with \$\$\$ in it.

One envelope is the SAE which is folded in thirds with the green stamps inside it and then wrapped around my QSL card so that only the blank ends of the card stick out of the folded envelope.

The other envelope contains the first with card and \$\$\$ tucked inside. The envelopes are printed on my PC and my return address does not have my callsign nor does the addressee's name have his callsign after it.

My name and address on the SAE does have my callsign after my name so the DX station knows it belongs to me.

If using IRCs, they are also tucked inside the SAE out of sight.

Also unfortunately, the USPS doesn't sell IRCs anymore, but some QSL managers do sell them.

Some DX hams, notably DXpeditions, have the OQRS (Online QSL Request System) on Club Log available which involves a "donation" (usually \$2-\$4) via PayPal.

PayPal is a secure on-line method of making monetary payments. You can have a PayPal account or use a personal credit card to make payments.

Club Log was developed by G7VJR and is an on-line log which can display real-time QSO information and is uploaded to at the discretion of the DX station.

It allows the DXer to verify his contact with the DX station, thus precluding duplicate contacts.

Since you submit your QSO data on line, there is no need to send your QSL card, SAE and postage which typically amounts to \$3 or \$4 plus cost of the card and 2 envelopes.

The least expensive alternative is, of course, ARRL's LoTW (Logbook of The World), although not all DX stations use it yet.

After using LoTW for 10 years, my rate of return is a little over 50%.

eQSL.cc is a secure method of confirming contacts, similar to LoTW.

Confirmations, eQSLs, are not valid for any ARRL awards, but eQSL.cc has their own award programs similar to DXCC, WAS, WAZ, WPX.

CQ magazine also accepts their QSLs for some of their awards.

73, Russ, WA2VQV

How's DX?



From December 15 to January 14, Russ Young WA2VQV worked:

OF9X	20DEC	2224Z	20m	CW	2889	mi	NNE	SANTA CLAUS
HK6F	28DEC	2229Z	17m	SSB	2451	mi	S	COLOMBIA
YS1/NP3J	01JAN	2216X	17m	CW	1979	mi	SSW	EL SALVADOR
XE2JS	01JAN	2240Z	10m	SSB	1966	mi	WSW	MEXICO
NP3A	11JAN	2037Z	15m	CW	1573	mi	SSE	PUERTO RICO
XE2MX	11JAN	2119Z	15m	CW	2914	mi	W	MEXICO
KP2RUM	11JAN	2221Z	29m	CW	1639	mi	SSE	US VIRGIN IS
XE2MX	12JAN	0007Z	20m	CW	2414	mi	W	MEXICO
(Distances place)	s and o	directi	ions	are	relat	tive	e to	HCARC meeting

HCARC's Silver Anniversary

This year, in May, we will be celebrating the Club's 25th anniversary. To start the celebration, here is a copy of our very first newsletter. Murray Goldberg KD2IN is the only original member known to be still living. [Next page] >

[Continued from page 2]

==========	TREASURY REPORT	
\$\$\$\$\$\$\$\$\$		
	=======================================	
5/26/89, COLLECTION	+ \$ 10.00	
5/28/89, CAKE ETC.	- 4.00 MURRA	Y KD2IN
	+ c 6 00 PIINNTI	NG TOTAL

MEETING # 1, MAY 26, 1989

5/26/89, Friday, 8:00 PM, First combined meeting was held in the South Clubhouse facilities. A group of ten (10) were in attendance in addition to two guests from the HC South who are interested in starting a low power radio station for the Holiday City residents. The purpose would be for traveling & weather & road conditions and also for entertainment. It was suggested that they get in touch with the local WOBM and make inquiries as to a start up procedure.

Murray, KD2IN, opened the meeting, and suggested that we should elect officers and committees to get the club started and off the ground.

One of the members present suggested that we keep the group very informal and that we should, "play it by ear temporarily", and then see what transpires.

The ten members in attendance each introduced themselves, told a little bit about their experiences, and talked about their antennas and equipment in use.

The group then discussed what we should call ourselves, and it was decided to call ourselves the HOLIDAY CITY AMATEUR RADIO CLUB.

Everyone also seemed to agree to use the JSARS 2 meter repeater for calling purposes of our group, and then QSY to 145.62 simplex for QSO. Burt WA2FGB picked the 145.62 frequency and gave a credible explanation as to the choice.

We also discussed a time and place for future meetings. The options seemed to be either the Fire House or alternating the meetings in the various phases of the Holiday City clubhouses. Since Leon WZGGT, and Arnold WAZQNA, each being directors of Holiday City Berkeley, and Holiday City South respectively, felt that because the group at this time is so small, there would no problem meeting at the various Holiday City clubhouses. Arnold said he would also contact directors

at Carefree & West at their next coalition meeting.

The members also voted to start the meetings at 7:00 PM of the last Friday of each month. This timing seemed not to interfere or be in conflict with any of the clubhouses in HC.

Gerry KA2ALT, was asked to write a small article announcing the formulation of the new radio club to be put into all the respective Holiday City publications to generate interest and induce new membership. A couple of the members also volunteered their time and talents to help new members obtain their Novice license.

We also put \$ 1.00 per person into the kitty to defray the cost of cookies, coffee, & postage. \$ 10.00 was collected and being held by Gerry KAZALT who is temporary Secretary Treasurer and also on the Refreshment committee with Irv Gieter, who wasn't present at this meeting.

The members in attendance were:

ARNOLD REPETTI WAZQNA, VINCENT NOTTO WZEKW, BILL JOHNSON KBZGQD, HAROLD PETERS NZFAL, BUD LOVE WAZIAQ, BURT SMITH WAZFGB, LEON GREENBERG WZGGT, FRANK ROURKE WAZVWE, MURRAY GOLDBERG KDZIN, & GERRY RUSSO KAZALT.

FOR PUBLICATION IN ALL THE HOLIDAY CITY PUBLICATIONS:

IT FINALLY HAPPENED...after much searching out for each other; about a dozen or so FCC licensed Radio Amateurs, all residents of the combined Holiday City phases, met for the first time as a group and started the HOLIDAY CITY RADIO CLUB. It was an exciting meeting where some members met face to face for the first time although they've talked to each other over the "air waves" years ago, in far away cities.

The group wondered how many more of these "HAMS" are now living here amoungst us in Holiday City, we want to hear from you.

We also want the residents of Holiday City, both guys & gals to know that our group will help any one interested in getting his or her FCC Radio Amateur License. Call either Gerry Russo 341-4112, or Murray Goldberg 505-6860.

Internet and e-Mail Address Links

Internet addresses and most call signs in The SKYHOOK are now hyperlinks to web sites or email addresses. If clicking on the link does not bring up what you want, <u>copy</u> the address and <u>paste</u> it into your search box. Back issues of SKYHOOK can be downloaded from the www.hcarc.us website.

Our VE Crew

Murray <u>KD2IN</u>, John <u>K2JWH</u>, Ed <u>W1EAP</u>, Larry <u>K2QDY</u>, John <u>KQ4WR</u>, Stan <u>KB2PD</u>, Steve <u>N2WLH</u>, Kevin <u>W2FA</u> Walter <u>KC2LFD</u>, Paul <u>N2QXB</u>, Larry <u>WA2VLR</u>.

License exams are given on the second Wednesday of each month at 7pm at Holiday City South Clubhouse Bldg A, which is at the corner of Mule Rd. and Santiago Dr. <u>Directions</u>: From either Route 37 W or Davenport Road, take Mule Road to Santiago Drive. Turn into the parking lot from Santiago Drive, and park near the pool. Enter the building nearest the intersection.

CLUB COMMITTEES

Refreshments: Ed Baranowski

Webmaster: Steve N2WLH, Carl W2PTZ

Publicity: Ed W1EAP

<u>Programs</u>: Lawrence <u>WA2VLR</u>

<u>Sunshine</u>: Dave <u>WA2DJN</u> <u>Field Day</u>: Larry <u>K2QDY</u>

VE Sessions: Larry K2QDY 732-349-2950 & the crew

Skyhook: John Roberts KQ4WR 732-350-1162

Fund Raising: vacant

Membership: Doug Poray KC2TZC

HOLIDAY CITY AMATEUR RADIO CLUB

Toms River, New Jersey

Web Site www.hcarc.us President Carl Lee 732 237-2421 W2PTZ 732-350-1162 Vice President John Roberts <u>KQ4WR</u> 732 736-0955 Secretary Ed Picciuti W1EAP Larry Puccio 732 349-2950 Treasurer K2QDY WA2VLR 732 431-9082 Executive Board Larry Loscalso **Executive Board** Tom Chicino KC2RSE 732 240-7395 W2HC Trustee Don Smith W2III 732 505-4821

Membership is open to all interested persons. Ham license is not required. Dues are \$20.00 per year, payable Jan 1^{st} . Members joining during the year will have the dues prorated. Family membership \$30.00 per family.

<u>Meetings</u> are held on the first Thursday of every month, at 7:00 pm. <u>Location:</u> Meeting Room #1 in the Holiday City South Clubhouse. <u>Directions</u>: From either Route 37 W or Davenport Road, take Mule Road to Santiago Drive. Turn into the parking lot from Santiago Drive and park near the pool. Enter the building nearest the intersection.

The SKYHOOK is published monthly. Editor and Publisher:

John Roberts <u>KQ4WR</u> phone: 732 350-1162 E-mail <u>KQ4WR@arrl.net</u> Send all newsletter items to: John Roberts

7 Lincoln Ct. Whiting, NJ 08759-1505, or e-mail KQ4WR@arrl.net

Ocean County ARES® News







The next meeting of Ocean County ARES will be on Wednesday, February 19th at 7:00 PM. The meeting location is the Ocean County EOC, Robert J. Miller Airpark, Berkeley Township. Because of the meeting, there will be no net on the N2OO Repeater in Manahawkin (Yes, Manahawkin really does exist!).

Ocean County ARES would like to welcome a new member, KI4KWR, who is currently relocating to our area from Virginia. Stephan was very active in Tidewater Skywarn and ARES in VA and we welcome him and his talents.

I'm hoping to roll-out the new Ocean County ARES website the end of February and plan on introducing the new site format at the February 19th meeting for those who attend. Keith, KC2OON, recently upgraded the Ocean County Skywarn website. Check out the new look at www.qsl.net/kc2elg/

Also, Ocean County Skywarn is on Facebook along with Ocean County ARES. Give us a visit and a "like".

Since more snow is probably headed our way, let me remind operators who check into Skywarn nets, to please provide the control operator with your Skywarn ID number. This number is required to make the report to the NWS and it is a real burden to find this number when it is not provided by the observer making the report. There is no "central" list to check and it can be very time consuming to find.

PowerGate is an automatic device which allows continuous power to be delivered to a transceiver from a 12 VDC supply powered from line AC and also a backup battery. The battery is also charged by the PowerGate device via the AC supply. The voltage drop of the PowerGate is relatively low due to the use of Schottky diodes and is around 0.2 to 0.3VDC.

There is now a new boy on the block, developed and built in the USA by KIOBK, using MOSFET power transistors, with only a 20 millivolt drop in voltage and one third the price of PowerGate by a major manufacturer. There is so little heat produced that a large heat sink is NOT needed. This is a vital piece of gear for any ham shack, especially an ARES station. Check it out at http://ki0bk.noip.com/~pwrgate/LLPG/Site/Welcome.html

73 de Bob Murdock WX2NJ

Ocean County Amateur Radio Emergency Service® EC

Changing Your e-mail Address?

When you change your e-mail address, if you get SKYHOOK by e-mail, be sure to let the SKYHOOK know your new one. Likewise, if you use arrl.net, be sure to notify ARRL, too.

If you find your copy of SKYHOOK in your spam folder, it's because some spam traps assume that all e-mail addressed to a long list of addresses is spam. If there's a NOT SPAM button on your e-mail window, select or open the SKYHOOK and click your NOT SPAM button. That might solve the problem. If it doesn't, or your e-mail window doesn't have anything like a NOT SPAM button, consult to your e-mail provider.

If all else fails, you can still read SKYHOOK, including back issues, from the www.HCARC.us website.

To notify SKYHOOK of your new address, send an e-mail to JohnKQ4WR@verizon.net.

How to Send a Radiogram

Sending a message by ham radio is a tradition started by Hiram Percy Maxim himself. His spark transmitter couldn't be heard more than 100 miles away, so he arranged to have other hams relay his messages. Thus began the American Relay Relay League.

The tradition continues. Although the original system is slow by modern standards, it continues to supply experienced message handlers for emergencies, especially when other communication systems fail.

The ARRL National Traffic System, using CW, RTTY, SSB, FM, or whatever works, is the most basic ham radio message system.

So let's send someone a message. First, make some copies of the ARRL Radiogram Message Form from the www.arrl.org website.

Give your message a serial number. Let's call it 1. Next, you need to decide if it's EMERGENCY, Welfare, or Routine. I assume you'll choose Routine. (Welfare is used by Red Cross, Salvation Army, and similar agencies, while EMERGENCY is for the 911 type.) Next, you have the option of saying how you want your message routed. (HXC asks the delivering station to report when it's delivered. HXE means reply requested. Use HXG for default). The next thing you need to enter is your call sign, as the originator. Next you need to count the number of "words" between the address and the signature. (Any group of characters that is seperated from whatever else by a space, is a word.) Next comes the place of origin (normally your municipality and state), and then the date and time. This can be local time or "Zulu" time, as long as it's obvious which it is. That completes the Preamble.

The rest of the message is the destination address and phone number, the words that you counted in the body of the message, and who sent it.

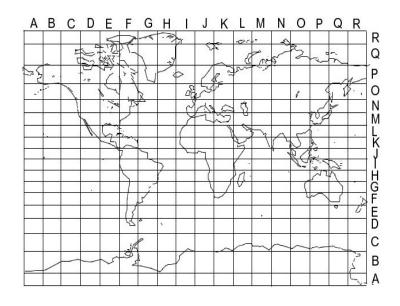
The JSARS Traffic Net (7:30pm daily on 146.910) will be happy to pass it on.

EST to Zulu Time Conversion

12:00am*	0500Z	12:00pm*	1700Z
1:00am	0600Z	1:00pm	1800Z
2:00am	0700Z	2:00pm	1900Z
3:00am	0800Z	3:00pm	2000Z
4:00am	0900Z	4:00pm	2100Z
5:00am	1000Z	5:00pm	2200Z
6:00am	1100Z	6:00pm	2300Z
7:00am	1200Z	7:00pm	0000Z+1day
8:00am	1300Z	8:00pm	0100Z+1day
9:00am	1400Z	9:00pm	0200Z+1day
10:00am	1500Z	10:00pm	0300Z+1day
11:00am	1600Z	11:00pm	0400Z+1day

^{*}From 12:00 midnight to noon is am; 12:00 noon to midnight is pm.

World Grid



February DX Opportunities

Begin	End	Entity	Call	C/IOTA	ITU CQ	Grid	Miles Dir	Bands	Modes	QSL via
Feb15	Feb16	CW DX Contest (see www.arrl.org	1)	<<<<	<<<<	<<<<<	<<<<<	CW	LoTW
Jan24	Feb15	Mauritius	3B8/HB9ARY	AF-049	53 39	LG89	9289 E	160-10m	SSB	NI5DX
Feb10	Feb18	Rodrigues I	3B9/OE4AAC	AF-017	53 39	MH10	9585 ENE		CW	OE4AAC
Jan28	Feb18	Tanzania	5H1Z	4 AF's	53 37	KI93	7753 E	40-10m	C&S	F6AML
Feb02	Feb10	Tanzania	510DX	AF-032	53 37	KI93	7734 E	HF	SSB	IK7JWX
Feb25	Mar16	Uganda	5X1XA	AF	48 37	KG60	7000 E		CW	G3SWH
Feb11	Feb16	Lesotho	7P8ID	AF	57 38	KG30	8092 ESE	40-6m	SSB	DK3ID
Feb12	Feb18	Maldives	8Q7KB	AS-013	41 22	MJ71	8939 NE	30-10m	CS&R	DL2SBY
Feb18	Feb24	Maldives	8Q7KB	AS-013	41 22	MJ64	8752 NE	30-10m	CS&R	DL2SBY
Feb24	Mar07	Tonga	A35AX	OC-049	62 32	AG28	7712 W		CS&R	OQRS
Feb24	Mar07	Tonga	A35AX	OC-064	62 32	AH31	7542 W		CS&R	OQRS
Jan31	Feb04	Bhutan	A52JR	AS	41 22	NL57	7674 NNE	80-10m	SSB	PP5VB
Jan29	Feb09	Guadeloupe	FG/F6ITD	NA-102	11 08	FK96	1756 SSE	HF	S&D	F6ITD
Feb09	Mar25	Guadeloupe	FG/F6ITD	NA-102	11 08	FK96	1815 SSE	HF	S&D	LoTW
Feb18	Feb23	New Caledonia	FK1HP	OC	56 32	RG28	8750 W		CS&R	LoTW
Jan24	Feb12	Amsterdam I	FT5ZM	AF-002	68 39	MF82	10921 E	>>See Pa	age 1<<	N200
Jan20	Feb10	Ecuador	HC1MD	SA	12 10	FI09	2788 S	40-10m	CS&R	LoTW
Jan29	Feb07	Dominica	J79JG	NA-101	11 08	FK95	1867 SSE		CW	AD8J
Feb21	Mar10	Dominica	J7Y/K1LI	NA-101	11 08	FK95	1867 SSE			K1LI
Jan31	Feb04	Greenland	OX5T	NA-018	05 40	GP36	2025 NNE	160-10m	C&S	OZ0J
Feb22	Mar16	Sint Maarten	PJ7AA	NA-105	11 08	FK88	1656 SSE			AA9A
Feb01	Feb13	SaoTome&Prin.	S9TF	AF-044	47 36	JJ30	5732 E	80-10m	CS&R	IK5CRH
Feb08	Feb22	Martinique	TO4YL	NA-107	11 08	FK94	1923 SSE	160-10m		F5GN
Feb05	Feb17	Reunion	TO7CC	AF-016	53 39	LG78	9220 E	all	R (&D?)	F1NGP
Jan26	Feb05	Benin	TY1TT	AF	46 35	JJ06	5297 E			ON6D
Jan21	Feb21	St Kitts & Nevis	V47AJ	NA-104	11 08	FK87	1717 SSE	160-10m	RTTY	N3ME
Feb04	Feb14	Marshall Is	V73MW	OC-029	65 31	RJ57	7278 WNW	160-17m	RTTY	LoTW
Feb19	Feb27	Bermuda	VP9/G7VJR	NA-005	11 05	FM72	746 SE			M0OXO
Jan26	Feb28	Burkina Faso	XT2AW	AF	46 35	IK92	4758 E		C&S	M0OXO
Feb25	Mar21	Cambodia	XU7ACQ	AS	49 26	OK21	8884 N	40-10m	SP&R	KF0RQ
Feb15	Mar05	Vietnam	XV2BM	AS	49 26	OL21	8231 N	160-10m		JA8BMK
Feb11	Feb25	Vanuatu	YJ	OC	56 32	RH42	8436 W	160-10m	CW	home*

^{*&#}x27; means QSL by LoTW also ok.

Units of Measure

METRIC UNITS, such as seconds, volts, and meters, follow a simple rule for capitalization.

When the name of a metric unit of measure is spelled out, it is not capitalized, even if it was named after a person, unless it starts a sentence. The abbreviation, however, is always capitalized if, and only if, it's named after a person. So, Siemens is 'S', but seconds is 's'.

Ohm was a person, so the unit of resistance, reactance, or impedance is the ohm. But to avoid confusion with zero, the Greek capital 'O', which is ' Ω ', is used instead.

Units based on kilograms and meters (such as teslas, newtons & joules), are preferred over units based on grams and centimeters (such as gauss, dynes & ergs).

CUSOMARY ("English") UNITS, such as pounds, gallons and inches, are defined by metric units. For example, the legal definition of an inch is 25.4 millimeters.

METRIC PREFIXS: An easy way to remember metric prefixes is to memorize "pnμm_kMG", for "pico nano micro milli space kilo mega giga." Start at the space between the "pnμm" and the "kMG". As you read to the right, it's like moving the decimal point three places to the right for each letter. Likewise, moving to the left one character represents a decimal point move of three places to the left. For example, 250 W is the same as 0.250 kW, and also the same as 250000 mW.

Note that all prefixes to the left of "M" are lower case, while all those from "M" on are capitals.

Collectors of antique radios will note that "pF" was once "MMF", and "kHz" and "MHz" were once "KC" and "MC."

SCIENTIFIC NOTATION: When dealing with very large or very small values, engineers often use "E-notation" to keep track of the decimal point. For example, instead of writing 146.88 MHz, one might write "146.88E6 Hz", and instead of 25.4 mm, one could write "25.4E-3 m". The "E" is read as "times ten to the power of".

KEEPING TRACK OF UNITS OF MEASURE: Here's an example of how engineers avoid mistakes. To find how many seconds there are in 365 days, first, we write "365 days = 365 days". Then, to the right of that we write "x 24 hrs / 1day" We're allowed to do this because 24hrs/1day = 1, so we're just multiplying by 1. That allows us to cross off the word "day" or "days" in the two places where it appears to the right of the equal sign. We can do that because we're both multiplying and dividing by the unit "day". At this point, you should be getting the idea. Continue this process until you only have numbers and "seconds" to the right of the equal sign. Then get out your calculator.

Notes:

Note 1. The complete prefix list is "yzafpnµm_kMGTPEZY".

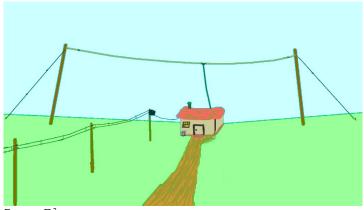
Local 2-meter Repeaters

Output Offse	t PL Callsign	Location
(MHz) (kHz)	(Hz)	
146.910 - 600	127.3 W2DOR	Toms River
146.835 - 600	127.3 N2OO	Barnegat
145.170 - 600	131.8 WA2RES	Manchester
146.445 - 600	131.8 KC2GUM	Bayville
146.655 - 600	127.3 WA2JWR	Toms River
146.700 - 600	192.8 N2NF	Tuckerton
146.955 - 600	103.5 W2RAP	Lakewood
146.490 +1000	141.3 W2NJR	Brick*

*Linked repeater network covering all major NJ highways

147.345 +600 127.3 WA3BXW Camden 145.470 - 600 127.3 KC2QVT Chatsworth

[For a list of coordinated repeaters, including other bands, see www.arcc-inc.org for Southern NJ and Eastern PA, and www.MetroCor.net for Northern NJ and Metropolitan NYC.]



Dear Elmer,

I just got my license. What do I need?

Dear New Friend,

Congrats on your achievement. To answer your question, I need to know what you want to do with your new priviliges. You can now design, construct, test, troubleshoot, repair, and operate any or all of a wide variety of radio and/or TV transmitting equipment. That's more than any other kind of FCC license! There are four main interests in ham radio. I mean, (1) Public & Emergency Service, (2) Chatting (we call it Rag Chewing), (3) Contesting (collecting reports from distant stations), and (4) Experimenting. You need to consider what kind of antenna you can erect. It could be a satellite dish, a hardly visible wire, an antenna that looks like something else, or maybe a big tower with a big rotatable array of aluminum tubing. Talk to the club members. Not only will they be happy to help, but may have used equipment for sale cheap (or even free). I hope this helps. *Elmer*.