



# The SKYHOOK



HOLIDAY CITY AMATEUR RADIO CLUB

[www.hcarc.us](http://www.hcarc.us)

APRIL 2013

Toms River, NJ



## Program for Our Next Meeting

Do It Yourself (DIY) is the recent emphasis of the ARRL. QST magazine is featuring more and more of these articles to support this theme.

This is also the title of this program: DIY. We will see several videos featuring antennas, keyers and other things you could build yourselves. Murray KD2IN, is providing this program.

## Dates to Remember

April 1 at Noon	Lunch Get-together
<b>April 4 at 7 pm</b>	<b>HCARC Club Meeting</b>
April 10 at 7pm	License Exams
<b>April 10 at Noon</b>	<b>Fusion Buffet, see pg. 4</b>
April 15 at Noon	Lunch Get-together
April 24 at 10 am	Exec Board Meeting
April 29 at Noon	Lunch Get-together

## Birthdays

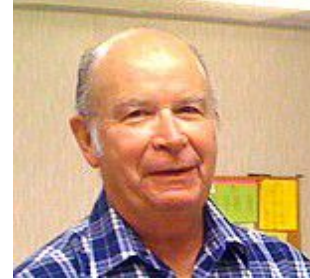
Joe Cuff  
Audrey Murin  
Grace Puccio  
Don Pye  
Nancy Roberts  
Marjorie Stafiej

## Anniversaries

Mike & Susan Graber



## The President's Corner



Well, here it is, the start of Spring, but it's not cooperating. I need to do some antenna work but it's just too cold and windy. Hopefully it will arrive soon.

I need to apologize for missing last month's meetings but the old brain just went dead. I will make this month's meeting.

Thanks to Murray for running the meeting and doing the program. We are back in our home but we still have some work to go.

The next club luncheon is on April 1st. Please join us if you can.

73,

Carl

w2ptz

## NEXT MEETING:

7:00PM Thursday April 4, 2013  
Meeting Room #1, Bldg A  
Holiday City South Clubhouse  
Santiago Drive at Mule Rd.



## Ocean County ARES Report

The next meeting of Ocean County ARES will be on Wednesday, April 17th, at 7:00 PM, Ocean County EOC, Robert J. Miller Airpark. There will be no ARES Training Net that evening.

### “ALWAYS BELIEVE YOUR INDICATION”

Have you ever been in a situation where occurrences were not logical, but there were indications that gave clues to the anomaly? Did you ignore the signs or take heed? Let me give you an example of a true situation, which happened to me over ten years ago.

Like any normal day, I drove home, walked into the house and greeted my Wife. She informed me that the overhead lights in the garage were not working, so I grabbed my box of spare fluorescent lamps and headed to the garage. Oddly, both overhead fixtures were lit, but flickering. I needed a step ladder to get to the fixtures and noticed a burning smell when I got close to the unit. Actually, both fixtures smelled of an odor that was similar to overheated ballasts that I was familiar with at my work environment. For the past 20 years I worked in an electrical generating station, where lamp ballasts failed daily and the smell stays with you. I turned the common switch to both lights off and figured I would let the units cool before I tried to investigate any further.

I went inside to let my Wife know what I found and she told me that a couple of the bathroom light bulbs were also burned out and maybe I could change them while I was waiting. I proceeded to my Ham Shack, where I kept spare light bulbs. As I passed by my bench I happened to catch the indication of my shack analog line voltmeter out of the corner of my eye.

It was pegged past 150 VAC and normally reads around 122 VAC. Now I was worried! I grabbed my portable multimeter and checked several outlets and confirmed the high voltage.

Was all this just a fluke? I didn't think so.

My next step was to call the power company and naturally got put on hold, then tried to explain my story to several individuals, who treated me like I was nuts, but I insisted that they send someone out to investigate. Several hours later, a troubleshooter finally showed up and started giving me some serious attitude. Apparently, the office had told him that the person who called worked in the power station and assumed he knew everything! I finally convinced the guy to take a look at the situation and he grabbed his tools and meter from his truck and pulled off the seal from my meter pan. He connected his meter to the terminals and I will never forget his face! His eyes got as big as a barn owls. He grabbed his stuff, jumped in his truck and took off.

About 10 minutes later, I got a telephone call from the troubleshooter. He asked me to look at my shack voltmeter and to give him updates as the voltage changed. The indication slowly came down to a normal reading. He had taken manual control of the Berkeley Substation regulator.

The unit had failed in the automatic mode to full output.

The next day I wrote an extensive email to the power company executives, describing the event in as much detail as I could. I learned that the substation regulators were not monitored and had no alarms. Had I ignored my indication, thousands of homes would have been subjected to sustained over voltage, damaging appliances and anything that was energized from line voltage.

In retrospect, I probably should have opened my Main Circuit Breaker when I realized the condition. About 6 months after the incident, my Television, refrigerator and well pump motor all failed.

The lesson here is to pay heed to your indication, whether it be in your ham shack SWR/Voltage, automobile gauges/lights or wherever. Take corrective action for the indication, then investigate.

73 de WX2NJ Bob Murdock  
Ocean County Amateur Radio Emergency Service® EC

## Accessories- Part Two

So what else does a Ham need when putting together a first hamshack?

The radio already has a built-in speaker. That permits listening to CW or sideband stations on the air and that are transmitting back and forth between stations. That's good, isn't it?



Well no, not quite good enough for serious on-air activity. First there may be a noisy environment around the ham shack which can make it difficult to hear station calls clearly, or not at all. And anyone who has ever used earphones to listen to radio traffic, know how it improves hearing, and also concentration. It can give the illusion that the activity on the radio is right in the middle of your head! Not to mention how quiet around you it can seem, if you are using a noise cancellation model.

Earphones are available from at least 5 makers. Heil Sound is the major brand and there are also Kenwood, Yaesu, MFJ and Koss. Prices range from a low of \$25 up to as much as \$180. Integrated boom mikes are one reason for the added price of the high quality models. Other reasons are quality of construction, comfortable ear contact material, which is important for when you are wearing the phones for long hours, such as during a contest. Also the comfort and size and fit of the headband is important .

Since radios have various earphone socket sizes and also the mike socket for the boom or separate mike, all must be matched to your particular radio. Check that before buying.

Happiness will be yours when you have your chosen 'cans' on your head and working away at bagging your DX target or just rag-chewing away with Ham friends.

73,

*Murray KD2IN*

### Your Six-Character Grid Code

*Some contest exchanges now want your grid square as six characters, rather than the usual four characters. Here's how to determine your remaining characters. The 4 character grid square is divided into a 24x24 subdivision, with "aa" being the little square at the Southwest corner.*

First, you'll need to know your latitude and longitude. If it's given in decimal degrees, fine, but if it's in degrees and minutes, or in degrees, minutes, and seconds, change it to decimal degrees. To do that, divide the minutes by 60, and divide the seconds (if any) by 3600, and add that new decimal part to the degrees. For example, 39 deg 6 min becomes 39.100.

Be aware that some listings give figures like 39.05 that really mean 39 deg 5 min. If the part to the right of the decimal point is always 2 characters and never more than 59, the position should be read as degrees and minutes.

Second, calculate the value of X by subtracting the West Longitude from 180. (For East Longitude, you add instead of subtract). Then divide that by 2.

Third, calculate the value of Y by simply adding the North Latitude to 90.

The **third character** of the code is the numeral just left of the decimal point of X. The **first character** of the grid code is the letter of the alphabet indicated by the digit or digits to the left of that, **counting "A" as zero**, "B" as 1, "C" as 2, etc..

The **fifth character** of the code is a lower-case letter. Multiply the decimal part of X by 24. Enter the letter that corresponds to the whole-number part of the result, **starting with "a" as zero**.

Now, in the same way, fill in characters 4, 2, and 6 according to the value of Y.

Within 2 miles of where HCARC meets, expect the result to be FM29ux, FM29vx, FM29uw or FM29vw.

If you would rather have me figure it for you, tell me your latitude and longitude, and I'll calculate it for you.

John Roberts, [KQ4WR](mailto:KQ4WR)

### Internet and e-Mail Address Links

Internet addresses and most callsigns in SKYHOOK are now hyperlinks. If clicking on the link does not bring up the web site, copy the address and paste it into your search box.

### To Cancel Your Subscription

Your SKYHOOK subscription is free, but if you want to stop receiving the SKYHOOK, just tell or e-mail John, [KQ4WR](mailto:KQ4WR) our Editor.

### Our VE Crew

Murray [KD2IN](mailto:KD2IN), John [K2JWH](mailto:K2JWH), Ed [W1EAP](mailto:W1EAP), Larry [K2QDY](mailto:K2QDY), John [KQ4WR](mailto:KQ4WR), Stan [KB2PD](mailto:KB2PD), Steve [N2WLH](mailto:N2WLH), Kevin [W2FA](mailto:W2FA), Walter [KC2LFD](mailto:KC2LFD).

*License exams are given on the second Wednesday of each month at Holiday City South Clubhouse, Bldg A, which is at the corner of Mule Rd. and Santiago Dr.*

*Directions: Go to Mule Rd. and to the corner of Santiago Dr. Turn into Santiago Dr., then into the parking lot in front of the pool. Enter bldg. on right*

### CLUB COMMITTEES

*Refreshments:* Ed Baranowski

*Webmaster:* Steve [N2WLH](mailto:N2WLH), Carl [W2PTZ](mailto:W2PTZ)

*Publicity:* Ed [W1EAP](mailto:W1EAP)

*Programs:* Murray [KD2IN](mailto:KD2IN)

*Sunshine:* Dave [WA2DJN](mailto:WA2DJN)

*Field Day:* Larry [K2QDY](mailto:K2QDY)

*VE Sessions:* Larry [K2QDY](mailto:K2QDY) & the crew

*Skyhook:* John Roberts [KQ4WR](mailto:KQ4WR)

*Fund Raising:* vacant

*Membership:* Murray [KD2IN](mailto:KD2IN)

### HOLIDAY CITY AMATEUR RADIO CLUB

Toms River, New Jersey

Web Site [www.hcArc.us](http://www.hcArc.us)

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Executive Board	Don Smith	<a href="mailto:W2III">W2III</a>	732 505-4821
W2HC Trustee	Don Smith	<a href="mailto:W2III">W2III</a>	732 505-4821

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

Meetings are held on the first Thursday of every month, at 7:00 pm. Location: Meeting Room #1 in the Holiday City South Clubhouse. Directions: Go to Mule Rd. and to the corner of Santiago Dr. Turn into Santiago Dr., then into the parking lot in front of the pool. Enter bldg. On right.

The SKYHOOK is published monthly.

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7 Lincoln Ct. Whiting, NJ 08759-1505, or e-mail [KQ4WR@arrl.net](mailto:KQ4WR@arrl.net)

## Chinese Luncheon April 10 at Fusion Buffet



April 10th will be the date for our Club's Spring Chinese Luncheon. It will be at the new, attractive and exciting Fusion Buffet. This an opportunity for us to share a meal with wives, friends, and lots of other club members. Located at the intersection of Rt. 9 and Rt. 571, it is easy to get to. If you've been to Home Depot or Pathmark Supermarket then you've been to the mall and could find your way back there easily. The restaurant is right in the middle of the mall. Mark you calendars for the date, April 10, at 12 noon. The cost is only 10 dollars which includes tax and tips and a little left over for the club treasury. We always have a great time at these events. Don't miss it!



## FM Repeaters

Repeater stations listen to one frequency (their Input Frequency) and simultaneously transmit on another (their Output Frequency). They are listed by output frequency. The frequency difference is called the Offset. An offset is considered negative if the input frequency is lower than the output frequency.

Most repeaters are set up to only re-transmit signals that contain a "Continuous Tone Coded Squelch System" constant background audio tone, usually called a "PL" tone.

For SNJ & EPA, see [arcc-inc.org](http://arcc-inc.org).

For NNJ & NY, see [metrocor.net](http://metrocor.net).

## Special Event Stations

### Celebrate Holland's New King as Queen Beatrix Steps Down

Carl Lee W2PTZ passes this along from Gerard PA7CW:

Hi All,

As you may know on April 30 2013 Queen Beatrix will abdicate in favor of her son: Crown Prince Willem-Alexander:

<http://edition.cnn.com/2013/01/28/world/dutch-queen-throne>

To celebrate this event there will be several special event stations on the air. A few of them are:

PC13KING by members of the Contest Group Apeldoorn. They will be active on HF from April 22 until May 2. QSL via PA1DV.

PA200KING by several hams from the Denekamp area. They will be active from April 18 until May 5 on HF, VHF and UHF. QSL via PD5ROB.

## Why is SWR Important?

Standing Wave Ratio is a way of expressing impedance error. An SWR of one (or 1:1) at the transmitter output is perfect, two is normally OK, but can be improved, and three is considered marginal. For HF, the usual remedy is an antenna tuner.

The transmitter's output voltage and current are each limited.

If the load impedance at the transmitter output is too high, Ohm's law tells us that the transmitter's output voltage, can't draw full output current. If the impedance is too low, the transmitter's current can't produce the full output voltage.

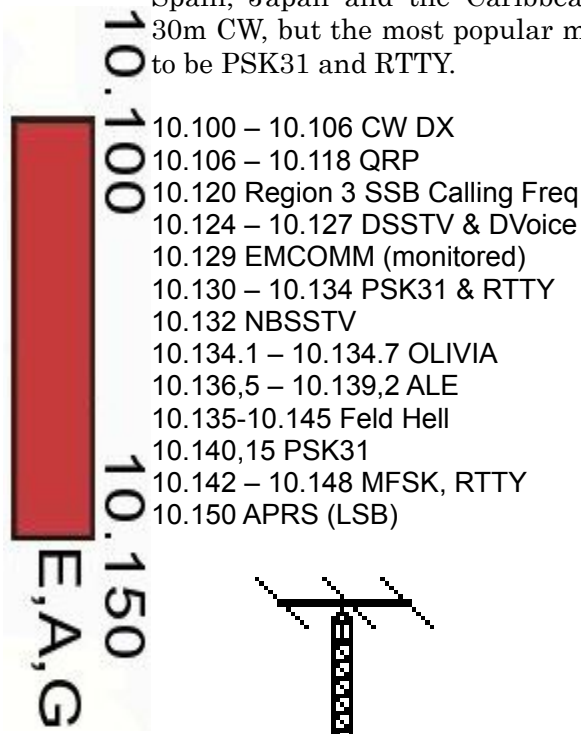
Every electrician knows that ac power equals the voltage times the current, times the cosine of the phase of the current relative to that of the voltage. At resonance, the phase error is zero, and the cosine of zero is one, so the output power is just the voltage times the current. Off resonance, there's a phase error, so the cosine is less than one. That reduces the power output.

Modern transmitters have Automatic Level Control (ALC) which attempts to limit the signal to a level the final amplifier can tolerate. On SSB, the ALC indicator will normally show a little action on voice peaks. When using any digital mode however, ALC fluctuation indicates excessive drive which can degrade the data and cause spurious sidebands ("splatter").

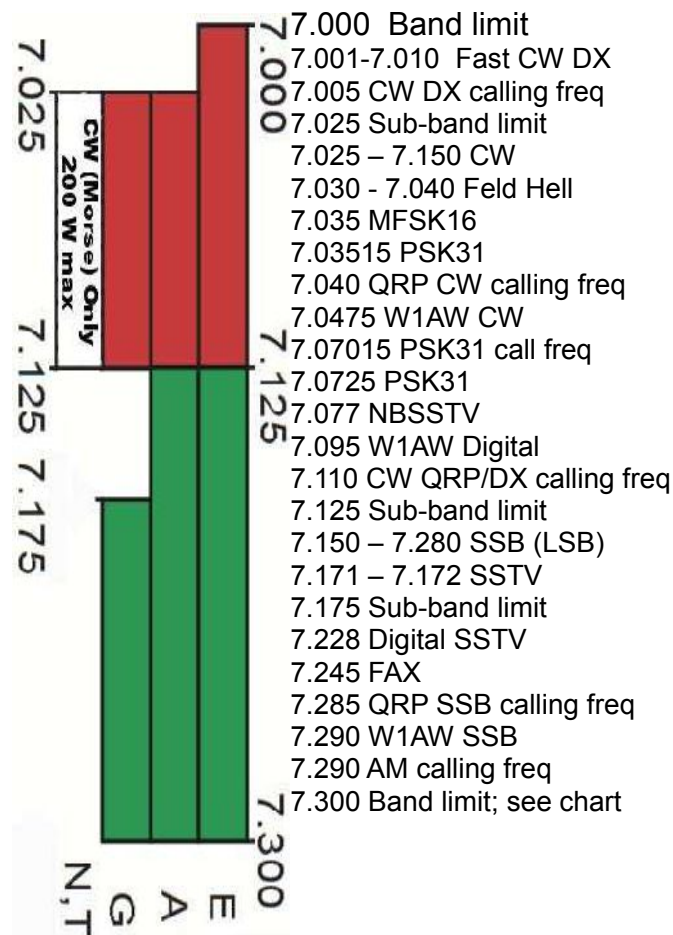
### The Thirty Meter Band

Sitting just 100kHz above the 10MHz WWV standard frequency, there's a neat little band with some big restrictions. One is that only CW and "slow" digital modes (300 baud max) are allowed. Another is a power limit of **200W PEP**. Also, as a secondary user, amateurs must not interfere with services in other countries on the same band.

Last month, Larry K2QDY reported that he worked Spain, Japan and the Caribbean area on 30m CW, but the most popular modes seem to be PSK31 and RTTY.



thru 47CFR97.313 downloadable free at [www.gpo.gov](http://www.gpo.gov), and [ARRL](http://ARRL) band plans. When operating near a limit frequency, be sure to allow for your sidebands and frequency inaccuracy.



### The Forty Meter Band

CW ops love good old dependable Forty Meters. It's almost always available for a friendly rag-chew or world-wide DX. If you prefer SSB, you won't be disappointed, and there are lots of digital modes, too. Remember that we amateurs normally use lower sideband (LSB) SSB on the 40, 75, and 160 meter bands. ("Lower below 10MHz, Upper above" still applies, except for the 5 channels of 60 meters and the APRS at the top end of 30 meters.)

DX SSB stations may call CQ outside our sub-band, but listen for us in our sub-band. Pay close attention for clues to their listening frequency (which may be in our sub-band).

Technician Class and Novice Class licensees are permitted to use up to 200 watt, CW only, from 7.025 to 7.125 MHz. For other classes, see the chart.

Caution: these lists are guides for listening. For transmitting, please refer to the FCC 47CFR97.301

### How's DX?

Feb 15-Mar 15

Joe, KC2QLA Worked:

- 2/16 15M EA3EAZ Spain.
- 10M PY3PA Brazil.
- 2/17 10M PD2BA Netherlands
- 10M IP1ANT Italy
- 15MOE2O13R Austria.
- 3/2 10M HK1NA Columbia.
- 10M HI3TT Dominican Rep.,
- 10M XE7S Mexico.
- 15M 3Z5N Poland.
- 15M 9A7A Croatia.
- 15M S54 Slovenia.
- 3/3 10M TO1A Martinique.
- 10M P4OP Aruba.
- 10M YN5Z Nicaragua.
- 10M 8P5A Barbados,
- 10M NP2N Virgin Is.



10M Z36WN South Africa  
 10M PJ2T Bonaire Curacio.  
 15M OK1XC Czech Rep.,  
 15M TM9R France,  
 15M DJ1AA Germany,  
 15M TO1A Martinique.  
 3/8 15M OM2VL Slovak Rep.  
 3/9 20M O6AMM Bahamas.  
 3/10 15M YL2SM Latvia.  
 3/11 15M 6V7S Senegal,  
 17M EA8KP Canary Is.,  
 17M CU2CE Azores,  
 3/12 17M CO6LC Cuba.,  
 3/13 10M OT4A Belgium.

TX5K Clipperton Island.  
17M CW: T46RRC Cuba,  
 TX5K Clipperton Island..

17M SSB: 9U4U Burundi,  
 T46RRC NA-204 Cuba.  
17M RTTY: TX5K Clipperton Island.

15M CW: 9U4U Burundi,  
 TX5K Clipperton Island.

15M SSB: XT2TT Burkina Faso.

12M CW: TX5K Clipperton Island.

12M SSB: JX9JKA EU-022 Jan Mayen Island.

**Russ, WA2VQV** worked:

40M CW: PV8ADI Brazil.

30M CW: TX5K NA-011 Clipperton Island,

XT2TT Burkina Faso.

20M CW: T46RRC NA-204 Cuba,

TX5K Clipperton Island.

20M SSB: 9U4U Burundi,



**Rookie Roundup April 21**

Rookie Roundup is an SSB contest for those who have been licensed for 3 years max. See the ARRL website for details.

Announced DX Operations (with thanks to NG3K.com):														
FROM	TO	QTH	CALL	QSL via	CON	ITU	CQ	IOTA	WLOTA	MCS	MILES	DIR	BANDS	MODES
March 25	April 12	Mayotte	TO7BC	DL7BC	AF	53	39	AF-027	L0376	LH27pf	8348	E		S
March 26	April 03	Azores	CT8	Home Call	EU	36	14	EU-003		HM77	2589	ENE	HF	C S
March 26	April 16	Tonga	A3EAQ	SP5EAQ	OC	62	32	OC-049		AG28	7709	W	HF	S
March 30	April 03	Laos	XW8XZ	LotW	AS	49	26	AS		OK17hx	8425	N		S
March 30	April 13	Cocos Keeling	VK9CZ	LotW	OC	54	29	OC-003		NH87	10435	NNE	160-10	C R S
April 01	April 12	Singapore	9V1	G0RCI direct	AS	54	28	AS		OJ11	9580	N		
April 01	April 12	Malaysia	9M2/G0RCI	G0RCI direct	AS	54	28	AS		OJ03	9440	N		
April 01	April 13	South Cook Is	E51DXX	AG1LE	OC	62	32	OC		BG08cr	6932	WSW	HF	
April 03	April 09	Virgin Is	KP2	LotW	NA	11	8	NA		FK78	1594	SSE	"All"	"All"
April 03	April 11	Micronesia	V63XG @	LotW	OC	65	27	OC-010		QJ96cx	7791	WNW	30 17 12	C
April 04	April 16	Seychelles	S79VJG	G4DFI	AF	53	39	AF-024		LI75	8482	ENE	HF *	
April 04	April 18	Corsica	TK7INT @	EA5KA	EU	28	15	EU		JN42	4162	ENE		
April 04	April 18	Samoa	5W0M @	DL4SYA	OC	62	32	OC-097		AH36tn	7246	W	HF & 6	C R S
April 05	April 16	St Lucia	J6	LotW	NA	11	8	NA		FK94	1964	SSE	HF	C P R S
April 06	April 12	Belize	V31	IT9EJW	NA	11	7	NA-180		EK57	1803	SSW	HF & 6	
April 06	April 13	Barbados	8P9HI	VA3QSL	NA	11	8	NA-021	L0999	GK03ge	2056	SSE		
April 06	April 29	Reunion	FR	F5MNV	AF	53	39	AF-016	L1812	OG08uv	11108	NNE	HF	C
April 07	May 08	Tanzania	5H3MB @	IK2GZU	AF	53	37	AF		KI74	7501	E	HF	
April 08	April 20	Bonaire	PJ4 @	SP9FIH	SA	11	9	SA-006	L1279	FK52th	1943	SSE	160-6	
April 10	April 15	Lord Howe I	VK9LT	W6NV Direct	OC	60	30	OC		QF98	9446	W		
April 13	April 14	JAPAN INTL DX CONTEST @ ( <a href="http://www.jidx.org/jidxrule-e.html">http://www.jidx.org/jidxrule-e.html</a> )										NNW		C
April 15	April 20	Micronesia	V63	Home Call	OC	65	27	OC-010		QJ96	7791	WNW		
April 20	April 28	Tanzania	5H1DX	DF8DX	AF	53	37	AF-063	L1437	KI95ud	7702	ENE		
April 22	May 04	Ogasawara	JD1BMH @	JD1BMH Buro	AS	45	27	AS-031		QL16	7250	NNW	HF	C R S
April 23	April 30	Maldives	8Q7KP	LotW	AS	41	22	AS-013		MJ63	8814	NE		
April 23	May 08	Tokelau	ZK3N	DL2AWG	OC	62	31	OC-048		AI40	7033	W	HF	C R S
April 27	May 04	Tunisia	TS8IT	IK2DUW	AF	37	33	AF-083	L1394	JM53fv	4534	ENE		C P R S
April 28	May 04	Ogasawara	JD1BLY @	JI5RPT	AS	45	27	AS-031		QL16	7250	NNW	40-10	C P R S
April 28	May 05	Ogasawara	JD1	LotW/JP11OF	AS	45	27	AS		QL16	7250	NNW	160-6	
April 29	May 06	Tunisia	TS8TI @	IK2DUW	AF	27	33	AF-083		JM44	4445	ENE		
@ = has a website *Will listen 200 kHz up on 40m for North America Modes: C = CW, P = PSK31, R = RTTY, S = SSB														