



Meeting  
Tuesday  
Oct 17<sup>th</sup>  
7:30 p.m.

Did you know that starting with the 2000 November Sweepstakes, Cabrillo will be the only accepted electronic file format for all future ARRL contests? Are you ready to go with this file format in your favorite logging software? A lot of RDXA members are not ready.

But fear not, because **Dave, N2CK** and **Tim, K2CY** will provide the necessary information and procedures to make your software Cabrillo compliant

## President's Soapbox

*Mike Rundle, N1OKL*

Contest season is finally here! With the CQWW DX SSB contest on 28, 29 October, this month pretty much marks the start of the contest season. I trust your station is tuned up and ready for the pileups ahead!

As for me, I will get the new 40m folded dipole up in the next week or so. Repainting storm windows, repairing an ailing dryer vent, installing a new washer and dryer, a new storm door, reflashing a leaky roof seam have all taken precedence. You know the drill! But hey, the delays provided the opportunity (excuse?) to assemble a compound pulley counterweight system for the antenna. My hope is that the compound system and high-tech carbon fiber pulleys with captive bearing races will combine to survive winter's icing. We'll see. (I confess, I'm an inveterate tinkerer.)

Speaking of tinkering and repairs, last meeting I mentioned to some Club members at the S&S my intention to replace some rusting bolts on my tower thrust bearing with stainless steel. I was

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interested to find out that Andy Walker, a professional tower mechanic, disdains the use of stainless for tower and antenna hardware. Over the years, I have come to swear by stainless steel fasteners for all manner of antenna hardware. Frankly, I couldn't imagine why Andy would be so opposed to use of the metal.

Curiosity drove me to the web to see what professional metallurgists had to say about problems with stainless steel. It seems that the main problem with stainless in a sliding-wear situation (as with bolts and nuts) is a failure mode known as galling—a severe form of adhesive wear that shows up as torn areas of the metal surface. In critical parts, galling can lead to seizure or freezing. Exotic alloys that yield gall-resistant stainless steels are available. But not from Debbie Supply, I suspect. Happily though, the anti-galling fix for more pedestrian stainless alloys is quite simple: lubrication. Apply a coat of almost any handy oil or grease and voila, galling is a thing of the past. So don't shy away from the use of stainless steel fasteners on your next antenna project. A bit of lubrication applied during insertion and removal of stainless bolts quickly solves the problem. Of course, this may not be practical when assembling a hundred-foot tower with zillions of bolts!

Shifting gears completely, I'd like to put out a call for participation in the Holiday Science and Technology Program at RMSC. You may recall the letter on this subject from **Peter, W2SKY** published in the August Bulletin. To refresh your memory, Peter has asked RDXA to set up and man a demonstration station for three days between Christmas and New Years at the Rochester Museum and Science Center. Peter and I are meeting with the Museum Director later this month to discuss the antenna situation. Here's a great opportunity to showcase ham radio

to a receptive audience. The dates are 27, 28, 29 December. See me if you are interested in participating.

That's it for this month. Gotta run and grease up those stainless bolts for my tower refurb project. Maybe I should look into naval bronze...

See you at the October meeting!

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## Editor's Corner

*Dave Wright, N2CK*

Greetings all and welcome to October. Hopefully all your antenna plans are done or in the last stages. It looks like **Jeff, W2FU** has an ambitious project underway. I've got a new antenna for 160m courtesy of **Fred, W2TZ**. I haven't had many opportunities to use it though.

I found an interesting web site for checking distances and beam headings. The site is [www.indo.com/distance](http://www.indo.com/distance). It calculated the distance "as the crow flies" in statute miles, kilometers, and nautical miles. It also gives latitude/longitude of both the start and end locations. I was amused that it couldn't give me driving directions from Rochester to London, England though. It may be worth a glance next time you're surfing.

Does anybody know of a generic QSO database-logging program? What I would like to find, though I know it doesn't exist, is a program that can digest all of my CT .bin files, and other contest related logs, and process them into a (relational) database. While I don't have the contest history that some of you folks have, I'm starting to accumulate some logs of semi-serious efforts. It would be very interesting to pull all the information (call, date/time, band, mode, exchange, etc) from the logging software into a generic database. What I'm looking for should be capable of awards tracking (WAS, DXCC,

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etc.), QSL chores (printing of labels, acknowledging sent/received, etc.). The QSL'ing functionality should be selectable (i.e. don't need Italy on 20, 15, or 10 – those are confirmed already). Does any such software exist??

There was an interesting thread on the contesting reflector recently. It involved the cultivation of the next generation of contesters. The gist of the thread was how many times have you trolled across the band and ignored a CQing station because you've worked Montana, Texas, Italy (insert any QTH here) many times before? I know I'm guilty of it. While the state/country/zone may be old hat for you, **YOU** might be that person's first New York state contact! We're losing to the internet community all the time. If new folks to the hobby never get a reply to their CQs, how long will they stick with the hobby?

As I usually do when I'm putting together the newsletter, I stopped by the ARRL site to catch the latest news to the Amateur community. I noticed that the results of the ARRL DX Phone contest are posted. I won't bother digesting the results and recognizing who finished where ( 'cause I always seem to overlook somebody), but RDXA was well represented with 20 entries for 10,343,655 points - good enough for 15<sup>th</sup> place overall in the medium category.

Is your logging software ready for contest season? Remember that there is new section in the 4 call district, West Central Florida. Does your logging software have this section defined? When I was getting computers ready for Field day, I noticed an interesting side affect with CT when I added this section. When I brought up the screen that listed the sections, WCF wasn't there. It was then that I discovered that CT's screen is only big enough for 9 entries (or sections). The WCF was a valid section, and the software accepted

it, but it didn't show up. My solution was to modify the sec.dat file and add the WCF entry at the end of the sections noted for the 3 call district, and modified the last data element to indicate that WCF was in the 3 call district (instead of the 4 district). Now when I display the section screen, WCF shows up at the bottom of the sections for the 3<sup>rd</sup> call district. Not pretty, but it works! Other files that will need this same modification include fd.dat and ar160.dat.

Included in this issue is the latest contest scores from **Chris, K2CS**. Make sure that you check your scores for accuracy and submit any missing scores ASAP so Chris can close the books. Also, added as filler this month is a DX-prefix, beam heading reference.

I just looked over my column, and realized how verbose I am this month. Glad this doesn't happen all the time! See you at the meeting.

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## Notice to all members:

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*Ed Gable, K2MP*

Membership dues for 00/01 are now due. Special early bird rate is a bargain \$15.00 for the year, normally thirty dollars for two years! For this rate, mail your check for fifteen bucks made out to RDXA, to **Ed Gable K2MP**, 187 Lighthouse Rd., Hilton, NY 14468. Hurry, this bargain can't last and is only good while the current supply of memberships lasts."

*Ed note: \$30 for 2 years – such a bargain! Hurry, because checks, money orders, promissory notes sent directly to Ed's QTH get priority processing!*

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## September Test Session Results

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*Dave Wright, N2CK*

Congratulations to Andrea Fuehrer, KC2GZK; Jason Szklany, KC2GZL, and David Sterner, KC2GZM. All three passed their Tech exams.

**Raj, N2RD** has accepted the position of club VE Coordinator. Please join me in welcoming Raj to the position.

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## Kingman Reef /Palmyra Atoll

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*Dave wright, N2CK*

In October (approximately 20 October) a group of 15 operators will travel to this tiny (.62 square miles) reef in the North Pacific. They intend to operate for 10 days. Their web site is:  
[www.qsl.net/krpdxg/](http://www.qsl.net/krpdxg/)

Kingman Reef is a triangular formation at 6' 24" N, 162' 24" W about 920 miles south of Hawaii and 35 miles north of Palmyra. It is a bare reef, 9 by 5 miles, running north and south the long way, with one corner of the triangle pointing north. Inside the reef lies a lagoon of considerable depth. The only land area is on the east side, where a small islet rises about **3** feet above sea level at high tide.

Kingman was discovered in 1798 by the American Captain Fanning, but it was named after Captain Kingman, who visited the reef in 1853. It was annexed by the US in 1922 and made a US Naval reservation in 1934. In 1937, Pan Am began airmail service between Hawaii and New Zealand using flying boats, and they used Kingman Reef's sheltered lagoon as a stopover. A schooner was

anchored there as a sort of hostel and supply ship. The route was abandoned after a seaplane was lost off Samoa in 1938. Kingman Reef is still under control of the US Navy and permission to visit is only occasionally granted.

You can help their operation by sending a donation to **Tom Harrell, N4XP**, 2011 New High Shoals Road, Watkinsville, GA. 30677.

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## DX 40 Years Ago – October 1960

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*Ed Gable, K2MP*

First discovered as a hunk of rock in 1904, and rediscovered by sharp eyed W9ZYD, a member of *Map Scrutinizers of America* (MSA), Conway Reef was being claimed as the newest destination for DX-peditioners. 40 years ago tonight, some of the RDXA gang headed to Albany for a meeting of the Northeast DX Association (NEDXA). Other such joint meetings were held with DX clubs in the Buffalo area and it appears folks didn't mind traveling too much back then. RDXA meetings were then held at the Maplewood Inn and the Dinner portions of the meetings were very well attended. We seemed to measure DX success then by comparing all others to **Sax, W2SAW**. This month Sax managed to snag Campbell Island, Somali Republic and Reunion. It was also at this time that VK calls were altered, adding VK8, and VK0. It seems that Macquarie has never been that rare with yet another station, VK0TF, being activated for another years' stay at the remote WX station. Even then the cry for standard phonetics was the plea from many a DX'er. One chap missed maximum-rare W8UTQ/3V8 as the op pleaded "your last letter, is it Q for

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Queen?" "No," was the response, on a momentarily QRM free frequency, "It's Q as in cucumber." "QRZ" said the 3V8! In pouring through the QST ads, it appears all the dealers are pushing the new Collins KWM-2. At \$1365.00, it appears there are not too many buyers. Uncle Sam will fix that in a few years when KWM-2( )'s are so plentiful in Vietnam that they are used as footstools and coffee tables.

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## Fred's Fables

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*Fred Laun, K3ZO (via the contest reflector)*

*(With apologies to **Hugh Cassidy, WA6AUD**)*

The date was May 20. The year was 2046. Four days earlier, the Forces of Evil had detonated a massive thermonuclear weapon high above the Kansas countryside, creating an Electromagnetic Pulse, which had immobilized the entire North American Continent, dependent as modern society had become on the semiconductor for carrying out even the most elemental tasks. Attempts to communicate with distant cities and states were useless. All systems were down. Few vehicles of any sort were running, what with the sophisticated semiconductor-based ignition systems of the day.

The QRP'er was out foraging for food, looking for rabbits in the bush, when he happened to pass by the hill on top of which could be found the shack of the Old Timer. Of course, all of the remaining practitioners of that quaint hobby, Amateur Radio, were QRP'ers these days, as the result of the events set in motion by the implementation, way back in 1997, of the Guidelines on RF

Exposure by the Federal Communications Commission. Rather than subject themselves to constant legal action, most Radio Amateurs had long since thrown in the towel and ceased amateur radio operations, relying instead on the Internet to entertain themselves. After all, the Internet incorporated many of the same elements that had proved fascinating for earlier generations of amateurs.

In the vast silence the QRP'er detected the unmistakable put-put-put of a gasoline-driven generator coming from the direction of the Old Timer's shack, so he went up the hill to see what was happening. As he entered the Old Timer's shack, he could see the glow of dial lights from some of the ancient equipment that the Old Timer had regularly exhibited at county fairs around the area. He was surprised to see the equipment working; he thought all electronic equipment had been rendered useless by the EMP. Looking carefully at the ancient transmitter he could make out the words "E. F. Johnson Co." and "Viking II." The receiver bore the inscriptions "Hallicrafters" and "SX-100."

The QRP'er rudely interrupted the Old Timer: "What are you doing?" "I'm having a QSO with XT2AA in Burkina Faso," was the immediate reply, "Come on in." The QRP'er entered and sat down in awe. Here the whole country was immobilized, and the Old Timer was having a QSO with Africa, no less! There was no need to ask what band the Old Timer was on: it had to be 20 meters. The big LEOs and little LEOs had long since used their financial clout to wrest all of the VHF and UHF bands away from the Amateur Radio Service, and with the great drop in Amateur Radio activity created by implementation of Guidelines for RF Exposure in the major industrialized

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countries of the world, the ITU had reassigned all of the HF bands to other services. Before going out of existence, the ARRL and IARU had managed to convince the United Nations to declare the 20 meter band an "Amateur Radio Historical Zone" and preserve it for amateur use as a matter of historical interest. The only Amateur Radio organization still in operation was the Antique Wireless Association (*and K2MP is STILL the curator!*).

"What is that thing you're using?" the QRP'er asked, pointing to a strange object that the Old Timer was using his hand to manipulate. The Old Timer replied: "Oh this! This is known as a bug. They were widely in use before the IARU decided that the Morse Code was no longer important for Radio Amateurs to know and did away with the Morse Code examination requirement. With this old bucket of bolts, I didn't think I could get through on phone, so I decided to drag out the old bug and fire up on CW."

The Old Timer finished the QSO and said: "It's pretty hard to find a ham station on the air these days, but some of the Africans are still pretty active, since they never developed to the extent that they can easily obtain Internet access. He says that he has been trying to find out what is going on in the rest of the world after all the normal systems went down, but except for other African stations I was his first QSO in the last four days."

The Old Timer continued, "In earlier days in a situation like this, the other hams around here and I would have been busy on two meters handling emergency traffic, but after the little LEOs got two meters, the Amateur Radio emergency systems just sort of died on the vine. The little LEOs assured the world that no matter what sort of emergency came up, they

would be able to handle it, and they have -- until now..."

"Well OM," the QRP'er said, "guess I better get going and find me some grub. Nice to have had the chance to see you."

"No problem," said the Old Timer. "If we manage to get through all of this, drop in again some time."

*Ed note: Reprinted with permission of the Author.*

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## The Myths of Low Band Dxing Part II

*Gerry, VE6LB*

Tips to Successful Low Band DXing.

### 1. When to Listen

Openings to South America and the Caribbean start at our sunset and continue until our or DX local sunrise. Openings to the Pacific start after our sunset and after sunset at the DX's location. The most valuable tool to predict when the band may be open is a computerized (DX Edge, Geoclock, Miniprop Plus, etc.) or paper (DX Edge) tool that shows the Gray Line. The Gray Line is the period of semi-darkness that is created as the Earth rotates from night to day and day to night. This Gray Line, or "Terminator," changes with the seasons as the tilted axis Earth rotates around the Sun. This change in Gray Line patterns with the seasons has a major effect on what DX can be worked when.

### 2. Coincident Gray Line openings

The optimum time to work East/West (including N/E, S/E, N/W and S/W) DX is when both ends of the path are in near

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darkness, which is when they are both in their respective Gray Lines. This is due to a refraction effect in the Ionosphere that "ducts" the signals between the coincident Gray Lines. This includes the long path when, as an example, fall and early winter offers some great long path openings to Europe around our sunrise (their sunset).

### 3. Contests and DXpeditions

Many times the low bands are open to some exotic location but due to their time of day, nobody is on the air. During contest and DXpeditions there are good opportunities to increase your low band country count as these operations are on the air at all hours and on all bands that are open. I've worked at least 50% of my low band DX during contests. These operators know when it is sunset/sunrise in North America and specifically look for us. "QRZ North America only" can be often heard from the DXpedition.

### 4. Low Band Openings

The opening on the low bands can be very localized. I have experienced many occasions when rare DX (e.g. 6W6 or AH5) will be calling CQ and few or no stations coming back to them. In these cases, working them was quite easy.

### 5. Information Sources

There are many good sources of information on DX. DX Packet Clusters, packet DX bulletins (LS DX), various general amateur publications (QST, CQ, etc.), DX bulletins and magazines (QRZ DX, DX Bulletin, DX Magazine, Canadx, etc.), DX Nets (INDEXA 14.236 @23:30Z daily) and on air discussions with other low banders.

### 6. Intelligence

One sure way to improve your success in low band DXing is to gather as much intelligence about DX stations operating the low bands as possible. From various sources of information as discussed

previously, determine the operating habits of the target DX, when and where they have been heard in your area, and plan your operating plans accordingly.

### 7. WWV

Understand how the propagation information broadcast on WWV, at 18 minutes after the hour, affects the low bands. Basically a low K index (0-2) and quiet or better solar forecast improves your chances of hearing low band DX.

### 8. Where to Find DX

Low band DX can be found in very specific places on the band, more specifically than the higher bands.

On CW: Most DX frequent the very low end of the bands, usually the bottom 10 kHz. The exception to this is contests, where up to 30 kHz may be occupied and DXpeditions, which will specify specific frequencies.

On SSB: Most of the SSB DX operates in specific "window" in the low bands.

40: 7050 to 7100 but mostly nearer 7050 with the DX listening on their frequency and/or a declared split in the US phone band.

80: The DX window is 3790 to 3800 and this is where most of the activity happens. Many countries do not allow Amateur operation above 3800 KHz although some DX such as South America and some Pacific can be found above 3800 and down as low as 3775. The area of activity expands during contests.

160: 1800 to 1850 for both CW and SSB as many countries only allow amateur operation in this narrow window.

### 9. Noise

As mentioned earlier, noise can be a problem on the low bands. There are several ways to reduce the noise component of the wanted signal such as noise blankers, external (audio) band pass/noise filters, adjustment of tone and

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IF shift controls. One trick is to run your AGC off or fast and turn back your RF gain. Also, the use of your highband antenna for receive can often improve the signal to noise ratio.

There is not a lot of information published about subjects related to low band DXing. The following are a few publications that I have found useful, all of which are available from RAC:

- Low Band DXing by ON4UN
- All About Vertical Antenna Handbook by W6SAI/W2LX
- The Complete DXer by W9KNI
- Radio Frequency Interference: how to find it and fix it by the ARRL

Similar operating strategies apply to the high band. In the last 3 years, I have been successful in working over 300 countries and 5BDXCC using simple wire and vertical antennas such as the R5/GAP and conservative power of 100 and 500 watts.

One of the greatest feelings, even for an old high band DX hound, is to work even a semi-rare one on 80 meters. It can be done and it doesn't take a big antenna, high power or living in your shack. It does take working smart.

Happy and effective low band DXing.  
*(Originally published in CQ, TCA and Key Klix in 1993/1994)*

*Update:* November 1997

Since this article was written in 1993, I have been focusing on 160 DXCC for the last 2 winters using an unmodified Cushcraft HF-2V with their 160 meter base load kit plus an AL80A linear. This antenna is commonly referred to by the Top Band community as an inefficient dummy load. To date I've managed 65 countries with the HF-2V plus 7 more since I've modified this antenna by adding a small "top hat" and an 8-foot section with a large loading coil near the top. The

improvement has been dramatic in that I went from waiting in a pile-up until I was amongst the last to call and thereby had a clear frequency to being able to break European pile-ups in the first few calls. The good news is that this modest 160 antenna works much better than expected, I suspect largely due to the 20 32-foot radials around its base. The bad news is that "DX Dog" doesn't have a clue about 160 propagation. On the odd occasion she does get me up in the middle of the night, 160 is barren. Must have been a single band dog.

The methods used on 160 are certainly the ones outlined above plus a few new ones learned such as timing your call to help the DX hear at least part of your call with a minimum of competition and calling a couple of hundred cycles high or low from the DX's frequency.

*Update:* October 1999

In June 1999, VE6LB was awarded 160 DXCC #800, the 1st VE6 to achieve 160 DXCC.

*Ed note: Reprinted with permission of the Author.*

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## How's DX?

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*Chris Shalvoy, K2CS*

How's DX?

Well, at least tonight, it's been great! I'm still not over this Asian spot stuff and 15 meters being open 'til midnight.

Granted, we've taken our share of "big hits" in the last few weeks but the rebounds have been spectacular.

Funny, MR DX ELMER himself, **K2FR** recently lamented about the dismal 10-meter season and that its rebound would be any day now...



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Well, as in the past, he was right. 4W, 9V, JA, 9M, YJ, etc., on 10 meters tonight until 9pm local. Can't wait 'til the 'test... 15 wasn't dead either; 3W is in the log here.

Guess the 3B6RF expedition is a bust until next May... guess transportation is the problem. Oh well, love to fight those thunderstorms.

If you didn't work the ZD9, your rig or antennas need attention.

Speaking of attention, I'd get things in order for the CQWW SSB at the end of the month, Just think, no trick or treaters at your door this year, you can do the whole 'test! But I'm sure more than a few of you were "trying" the treats while knockin' down the dx....

In closing, it's been fun dx'ing from my place in the Adirondacks, no packet, 40m dipole only and drastically different conditions (1800', no noise, much different sunrise, sunset).

As usual, 100 watts and a very compact station (ts50 with matching autotuner, NO QSK (hate it!!), mfj-481 keyer (2 memories) and W2OMV's bencher.). I can't even fathom what my count would be if that was my operating situation here....

Remember, I'm still accepting logs from last season.

**IN THE LOG** (non-contest, only the good stuff)

<b>ZD9ZM</b>	(12M, 30M, 10M CW)
KH6ND/KH5	(40M CW)
CE9/R1ANF	(20M CW)
5V7VJ	(30M, 40M CW)

J5Z	(15M SSB)
J5X	(17M CW)
E4/JA1PBV	(20M CW)
V51AS	(20M CW)
<b>VK0MM</b>	(20M SSB)
<b>4S7EA</b>	(20M CW)
YB0ECT	(20M CW)
<b>3W3SK</b>	(15M CW)

FROM EAGLE BAY

VR2BG	(15M CW)
V51AS	(10M CW)
BX4AB	(15M CW) <b>11:30 AM</b>
<b>LOCAL!</b>	
YB0ECT	(15M CW)
5V7VJ	(12M, 30M CW)
HL1CG	(15M CW)
KH6ND/KH5	(10M CW)

Thanks once again to the 59(9) DXReport, my main source of weekly DX information.

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## For Sale

*Dave Wright, N2CK*

FOR SALE: Autek CMOS memory keyer with iambic paddle, \$55. Ed Gable, K2MP at 392-3088 or k2mp@eznet.net.

FOR SALE: ALPHA 78 Linear Amplifier. Full featured, no tune, 50 wpm fast QSK, hypersil Xfmer, whisper quiet, flawless, low hours. \$950 this month only. Ed Gable, K2MP at 392-3088 or k2mp@eznet.net.

## Rochester DX Association Newsletter

*This newsletter is a publication of the Rochester (NY) DX Association, and is published prior to each monthly meeting for the information of members and others interested in Amateur Radio DX and Contesting.*

*You are cordially invited to any meeting, held at 7:30 p.m. on the 3rd Tuesday of each month from September through June. We meet in the "auditorium" of the Social Services Building at 111 Westfall Road in Rochester, New York*

### **Club officers and committees**

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Contest Chairman	<i>Chris Shalvoy, K2CS</i>
Newsletter	
Publisher	<i>Dave Wright N2CK</i>

### **Dues and correspondence**

*Ed Gable K2MP  
Secretary-Treasurer RDXA  
187 Lighthouse Road  
Hilton, NY 14468*

The RDXA website is located at:  
[www.qsl.net/rdxa](http://www.qsl.net/rdxa)  
Check it out.



33 South Main Street  
Pittsford, NY 14534

Bus: (716) 381-4770

Paul Ext. 178 • Toni Ext. 177

Fax: (716) 586-4599

E-Mail: [mackanos@nothnagle.com](mailto:mackanos@nothnagle.com)

E-Mail: [tconnors@nothnagle.com](mailto:tconnors@nothnagle.com)



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### **Rochester DX Association**

Dave Wright N2CK  
173 South Ave  
Hilton, NY 14468

**To:**