



THE FRANKFORD RADIO CLUB NEWSLETTER

PROFICIENCY THROUGH COMPETITION

CALENDAR

November 2003:

- 8-9 WAE DX Test, RTTY
11 FRC Main Meeting, Phila
11 Remy Meeting B
15-16 ARRL Sweepstakes, SSB
20 T.I.T.S. Meeting, Noon
25 Remy Meeting B
29-30 CQ WW DX Test, CW

December 2003:

- 5-7 ARRL 160M Contest, CW
9 FRC Main Meeting, Phila
9 Remy Meeting B
13-14 ARRL 10 Meter Contest
18 T.I.T.S. Meeting, Noon
23 Remy Meeting B
27 RAC Canada Winter Test
?? FRC Pizza Blast

CHANGES

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President's Column

Although I have been home only a few days, I have been checking the club scores and want to thank every one for putting in a outstanding effort. Now, all we need to do is back it up with that same or greater effort in the CQWW CW contest. Let's remind the radio world that we are the **Frankford Radio Club** and we have the best CW operators. We can show the contesting community that we still have what it takes to win. We have lots of members that say they are not CW operators and that SSB is their best mode. While this may be true, **the CLUB needs points from EVERYONE during the CQWW CW test if we are to be No. #1.** With a little extra effort from all of us, we can win the unlimited club category. Again, let me say thanks to all of our members for putting out many great scores last weekend.

Come to the meeting on Tuesday, November 11th at 8:00 PM at the College of Pharmacy in Philadelphia to see how we did in the SSB contest.

73, Joe K3NM/V47NM

** Just one other reminder: You must include "The Frankford Radio Club" in your CQWW SSB entry so that we will get the credit got your scores. Without including the club name, your scores will not count for FRC. **

MEETINGS

Main Meeting

The main monthly meeting of the **Frankford Radio Club** will be held on Tuesday, November 11 at 8 PM. Location is Rosenburger Hall, Room 102 at the University of the Sciences in Philadelphia.

T.I.T.S. meeting

The Trexlertown International Transmitting Society meets on Thursday, November 20 at 12:00 noon. Location to be determined. Keep an eye on the **FRC** reflector for more info.

Remy Meeting B

The Remy's **FRC** Meeting B meets after the main **FRC** meeting on the second Tuesday of each month, and at about 8 PM on the fourth Tuesday of each month.

CQWW DX CW 2003 FRC DXpeditions

V26K - AA3B will be active from Antigua & Barbuda starting 26 November 2003 through 30 November 2003, including the CQ WW CW contest. This will be a cw only, single op, all band, low power operation. QSL via AA3B.

WP2Z will be activated in CQWW CW again by ironmen AB2E and K3TEJ in Multi-Two (#9 World Finish in 2002).

N3DXX and **KN5H** will operate CQWW CW Multi/2 from 6Y6X. Setup is Tuesday November 25.

Storm on the Sun Could Sow Chaos on Earth (Remember 1859?)

By ANAHAD O'CONNOR

A NASA scientist is studying the most violent solar upheaval ever documented to determine whether another "perfect" magnetic storm, capable of disrupting satellite transmissions and knocking out power grids all over the world, could be in Earth's future. After examining records of a furious space storm in 1859 that short-circuited telegraph wires and set off fires in the United States and Europe, Dr. Bruce Tsurutani, a physicist at NASA's Jet Propulsion Laboratory in Pasadena, Calif., concluded that it was set off by a combination of four conditions.

"There have been other solar events that were even more extreme than this one, but they didn't meet the four factors that lead to an intense magnetic storm," Dr. Tsurutani said. "On Sept. 1 and 2 in 1859, those four ingredients came."

The string of events that gives rise to a magnetic storm on Earth starts on the surface of the Sun, when a solar flare or explosive burst of electromagnetic radiation erupts from a group of sunspots, sending a blob of ionized gas, called plasma, hurtling toward the planet at millions of miles an hour.

But only when the speeding plasma has an intense magnetic field that is opposite to Earth's, Dr. Tsurutani said, does it cause a powerful magnetic storm. And scientists can measure a storm's magnetic field only about 30 minutes in advance.

The space storm that careered toward Earth last Friday, for example, was traveling in the right direction, at a high speed, and with a somewhat intense magnetic field - three of the criteria - alarming scientists as they watched it approach for two days. But the direction of its magnetic field was not opposite to Earth's, so it had only a small impact, Dr. Tsurutani said.

The 1859 storm, by contrast, was traveling fast enough to reach Earth in just over 17 hours and had an opposite magnetic field, allowing charged particles to rip through the planet's upper atmosphere.

Looking at storms throughout history, Dr. Tsurutani has found so far that several fell just short of the magnitude of the storm that struck in 1859. One in 1972 that reached Earth in only 14 hours, he found, would have been of roughly equal intensity if the direction of its magnetic field had not been parallel to Earth's. "As a rough estimate, the potential for another storm like this is there," Dr. Tsurutani said. "We're still in the infancy of understanding magnetic storms and the probability of their occurrence, though, because we only know of this one case where all the ingredients came together."

If the storm of 1859 hit Earth today, he added, there is a possibility that it may knock out power grids all over the world and create such severe drag in the orbits of low-altitude communications satellites that they could be permanently lost.

Scientists at NASA and at the European space agency, among others, are looking for ways to put a satellite closer to the Sun so they can predict a space storm's magnetic field earlier.

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MULTI-2 OPERATION

By R. Sigismonti, N3RS

If you have the equipment, or can borrow what you don't actually own, I suggest you think about entering the ARRL DX Contest in the Multi-operator, Two-transmitter (M/2) category. It is a fun category and can generate some really big numbers for the Club.

The M/2 category is a very competitive and rewarding category. Even though the number of rigs on the air at a given time is limited to two, the score produced by an efficiently run M/2 station can be well above two times the score of a single operator station. This means that the output for the effort you put in is multiplied by more than the number of stations you actually use. It can also be the most effective use of our limited operator pool, in terms of net score per man.

STATION REQUIREMENTS

Let's consider what you will need to run an efficient M/2 effort. Of course, you will need at least two transceivers, amplifiers, computers, headsets, keys or microphones and last, but not least, an antenna system that will permit the use of two stations simultaneously.

Transceivers

The transceivers can be of any make, as long as they can be interfaced with a computer. This is necessary if you want to take full advantage of rapid band switching and computer logging, which is currently the preferred approach in the contest community. Since you will be operating on two bands simultaneously, some sort of filtering between the antenna and receive line is wise. That means that the transceiver must support insertion of a filter network between the receiver input and the receiving antenna, whether or not it happens to be the transmit antenna. Modern Kenwood, Icom and Yaesu equipment all support this feature. If at all possible, attempt to use the same transceiver at each position. This minimizes operator fatigue when moving from one rig to another, assuring layout of tuning, filtering, RIT/XIT and gain controls are the same.

Amplifiers

I will assume that you intend to use an amplifier at each position. Some folks like to run low power, but the M/2 category is really intended for stations that want to maximize their score. Running 100W one or both of the stations is really not the wise choice. Even if you cannot have two 1500W capable amplifiers, you really need to run as much power as possible (legally) on each station. Common amplifiers in use by the community are those manufactured by Alpha/Power, Ameritron, Command Technologies, ICOM, Kenwood, QRO Technologies, Ten Tec, and Yaesu. When picking an amplifier, remember that a serious contest effort is a strain on the amplifier, so err on the side of selecting a beefy amp, lest it break down in the middle of a contest.

Computers/Software

The use of logging software and a computer is the standard today. The days of cross-check sheets and the paper log are now history. You can select any of the popular software programs, but be sure to install the same software on each computer (one per operating position). The computers can be virtually anything that you have available that is more modern than a 486-33DX based machine. Even hard drives as small as a few hundred megabytes are suitable. If you can, try to dedicate the computers for use in the station. This will permit the use of a small HD and will minimize IRQ conflicts that tend to pop up when sound cards and other peripheral devices are in the machine. Keep the computer HD as clean as possible. Unless you are using a logging program such as Writelog, which requires Windows, all you really need is your logging program, it's support files, and a modern version of DOS (Ver 6.22) installed on the HD. The most common software program in use in the FRC is K1EA's CT logging program. Others in common use are NA (by K8CC), and TR Log (by N6TR). It is important that each station be reliably networked to all other stations. I am most familiar with CT, which has built-in networking support. With the addition of a free networking program from K1TTT (available on the Internet) and a network card for each computer, a very robust ethernet network can be employed. This has proven to be rock solid at N3RS over the past several years.

Accessories

The station will need several accessories to help make operating more pleasant. While the use of a bug is possible, I suggest using a good electronic keyer for the few times you will need to send CW without using the computer. Some rigs have internal keyers, but in some instances (e.g the Yaesu FT-1000MP) it is not possible to use the internal keyer

and also have the computer key the rig automatically from the logging program. In this case, an external keyer, such as the Idiom Press K1 or K3 is very useful. The power for these devices can be taken from the transceiver or a battery pack can be employed. If you use a battery pack, don't forget to check the batteries before the contest, unless you want to be changing batteries in the middle of the contest.

In the SSB contests, use of voice keyers is commonplace. It is really important in the M/2 category, since you spend nearly all of your time calling CQ's or answering the calls generated by those CQ's. There are several options available to you when it comes to voice keying. For many years we used an endless loop tape recorder at my station. It was awkward and I do not recommend it for use today. Next we used a DVK, which I believe is no longer manufactured. In any event, the DVK was an external device with several solid-state memories that could be used to send CQ's, give reports, send your call, or QSL a QSO and ask for the next station to go. We used such a device for many years. A more elegant solution is to employ a specialized sound card in the computer. The CT program supports a special card called a digital voice processor (DVP). This card has many features that are rarely used, but is an outstanding solution for sending repetitive information, such as CQ's and the like. Other solutions are available, most notably, the use of a common sound card with the Writelog program to provide essentially the same functionality.

The use of a headset-mounted microphone is a great solution for those of you that suffer from back and neck strain from hunching over a desktop microphone. This type microphone permits you to move around and turn your head while still keeping the microphone at a constant distance from your lips. The Heil headset and several others available at Radio Shack and through mail order houses include a good quality microphone attached to the headset. If you use a Heil headset, be sure to look into replacing of the speakers in the headset with more sensitive units supplied by the factory. The Yaesu FT-1000MP transceiver has low audio output when used with the standard Heil headset, but after we replaced the speakers with new ones provided by Heil, the audio was quite acceptable.

Needless to say, if you will be operating in a multi-operator category, use of packet spotting is allowed. Not only is it allowed, it is essential if you expect to generate a good multiplier total. That means that you need a reliable connection to the FRC packet network and all of the gear that goes with that. All of the logging programs facilitate the use of packet spotting, so that will not be a problem. Judicious use of the spots, however, is worth mentioning. In a M/2 operation you do not want to be a packet spot chaser. That is, do not rely on packet to produce the volume of contacts for you. Always call CQ and run as fast as you can on both stations. Learn to use the packet spots wisely. Jumping into a gigantic packet pileup when you are running 100+ QSO's per hour is not wise! Unless you have a gangbuster signal, it will take you some time to work the callout and you will have lost your run frequency in the interim. Later on in the contest, when you rate is lower, many of those same stations will be around and the pileups will be much smaller. That is a far better time to move from your run frequency.

Of course, packet is a bi-directional medium. This means that when you are tuning across the band and find a new multiplier, or even a station that you haven't worked before, do send out a spot so that others may benefit from your hard work in digging up that QSO. Remember, you will probably not be in line to win a category, or even place in the top 10, but by passing good spots to your fellow FRC members, perhaps you will help our Club to win the contest!

The last item I will touch on in the area of accessories is the use of automatic antenna switching devices. At N3RS, we use the Top Ten Devices Band Decoder and many single pole, double throw (SPDT) and single pole, six throw (SP6T) relay boxes. These are used to detect the band in use by the transceiver, produce the necessary drive voltages to operate A/B relays and to energize antenna relays and 6 position switches used to insert band-pass filters in the transceiver lines. The details of how this is done is the subject of another paper, dealing with station setup.

Antennas

Needless to say, it is not likely that you will be doing a full-fledged M/2 operation if all you have is a single tri-band yagi and a trapped dipole for the LF bands. It is possible, however, to use two tri-band yagis and a set of individual dipoles or verticals for the LF bands. Even wire beams on each band can provide good results in a M/2 setup. The key is to avoid putting RF into the same antenna from two or more different stations. This type of activity will result in a fried receiver section of your transceiver on one or more rigs.

It is also wise to provide as much spacing as possible between antennas that will be in use simultaneously. At N3RS we have multiple stacked-arrays on the same tower, but have attempted to separate the antennas as much as possible. Minimum spacing is about 9 feet between adjacent 20M and 15M yagis. Since these are stacked vertically, a minimum of coupling occurs. Band-pass filters in the shack help to minimize RF from one band getting into the second (or third) sta-

coupling occurs. Band-pass filters in the shack help to minimize RF from one band getting into the second (or third) station. Even with 7 different antennas, all on the same 130 ft. tower, no inter-station interference is observed due to fundamental overload. By employing mono-band yagis, the natural rejection of the antenna to out-of-band energy aids in reducing interference. Tri-band yagis or multi-band wire arrays do not offer this additional rejection and thus more filtering or greater spacing is required to avoid front-end overload.

It is worthwhile to note that if separate antennas are available for the LF bands, and a tri-band yagi can be paired with a tri-band trapped vertical for the HF bands, M/2 operation can be employed. The vertical will not perform as well as the yagi, but by judicious selection of times when the yagi is used on each band, the total score can be significantly increased over a M/S or single op score. Remember, two stations on the air at all times is a powerful point generator.

OPERATORS AND TACTICS

When you select operators for this category of operation, remember that teamwork is essential for good results. Pick fellows that you will be able to get along with when interference from second harmonics or other problems arise.

Number of Operators

The number of operators is really up to you, but I have found that at least one and a half operators per station is the minimum you should employ. If everyone is to get sufficient time on the rigs, no more than 2 operators per station seems to be a reasonable maximum. That means that if you employ two operating positions, you should have between 3 and 4 operators. This assumes that all of the operators are there for the duration of the contest. Part time operators are useful, but numbers tend to increase if you employ part timers. That is, you will need more operators if some are only part time.

Experience and Objectives

It is always beneficial to have at least one operator experienced in multi-operator efforts. He will be a valuable resource when questions arise regarding short-term strategy or band selections for maximum results. If you do not have an experienced operator available, don't let that deter you from trying M/2. You and your group will learn how its done the old fashioned way – hard work and on the job training. There is nothing more satisfying than to set a goal as a group and then doing your best to reach the goal. The goal may be expressed in terms of contacts, total score, or simply beating last years results or perhaps beating one of the old-timers this year. Try to keep your team together from year to year and communicate with one another before the contest. You can really enhance the fun of M/2 operation when you work together setting goals, working on station upgrades, and then actually operating successfully as a team to meet or exceed your goals.

Scheduling

With three or more operators you will want to have some sort of plan regarding how to deploy your operators for best results. Perhaps you have a diverse set of skills on your team. In this case, be sure to schedule your best operators to operate when high rates are possible. That is usually when Europe or Japan first starts coming through. The fellows that are a bit slower can be the run operator when things tame down a bit. During these high-speed periods, it is sometimes beneficial to have a less experienced operator listen in as the more seasoned op runs the pileup. This type of lesson is valuable to the newcomer especially. Some operators are really good at search and pounce technique. Use of the “band-map” in CT and skillful tuning is an art that must be learned by practice during a contest. The use of a third station to insert calls needed on a band not currently in use into the band-map is most rewarding, especially near the end of the contest. Quick QSY's to the unused band for a short time then back to the previous band can result in the addition of numerous QSO's to the log, including some multipliers. We often use three stations in our M/2 efforts at N3RS. Only two stations on the air at a time, but the third station all set to go at full speed as soon as conditions dictate a band switch.

Getting enough sleep is an important aspect of scheduling. Make sure that everyone gets at least 4 contiguous hours of sleep each day. Being out of the chair, but not sleeping is OK, only if you get those 4 hours per day. Some people require more than 4 hours, so you will have to adjust the schedule to accommodate them. Of course, if you have 2 or 3 stations set up, they should all be manned 24 hours a day, unless the bands dry up and you can hear no DX on the band. Excuses like, “we have worked everyone on this band” are just that, excuses! It takes dedicated hard work to do well in contests, much less win them.

Passing Multipliers

All of the software logging programs that I am familiar with have the ability to determine if a station has been worked

on other bands or not. In the case of multipliers, it is extremely important to take advantage of this feature when you are called by a station in response to your CQ's. By having a window open that shows if you need the country entered into the active QSO field, you can determine if it is possible to move that station to another band where he is still needed. Of course, moving stations to another band must be done tactfully and thoughtfully. Asking a VR2 to move from 20M to 40M at 1600Z is not a wise decision. Perhaps you might be able to make a sked with him for 40M at a more appropriate time. Don't be reluctant to ask the multiplier to move if the timing is proper. The worst thing that will happen is that he will say no. Most of the time they take the bait and move for you. Of course, it goes without saying, if you are calling a multiplier that you found via a packet spot and half the world is calling him, don't be so impolite as to ask him to move. That is, unless he happens to be a close friend and you know he will not be on for very long.

Passing multipliers is a skill that is very difficult to master. At N3RS we are still learning how to do this as well as the masters at K1AR! Many times, it is possible to make a QSO on a second or third band when propagation is very marginal. Knowing the fellows call ahead of time really helps in pulling out a really weak station. Working that multiplier this way is sometimes the only way to get it in your log. It may even be the difference between achieving that goal you set before the contest, or not. Remember, multipliers usually carry many times the value of a simple contact. Their importance cannot be overstated.

Rate...Rate...Rate

It has often been said that rate isn't everything - - it's the only thing when it comes to score. Practice will improve your rate. Watching the rate meter in CT is very useful. It tells you when you are falling behind your goal. Setting the rate meter to all bands is not particularly valuable. After all, you really want to know how you are doing, not the guy in the chair next to you. Set the meter to the band you are on. That way you can monitor your effort real time. If your rate is high, you will have to do less multiplier hunting or packet chasing. Why? Well, if you think about it, the number of multipliers you work calling CQ always exceeds the number you get chasing packet spots (unless that is all you do!). With high rate comes a large volume of QSO's. That large volume will have a percentage of QSO's that are multipliers. This percentage is nearly fixed from one year to another. Thus, if you make more QSO's by keeping your rate up, you will also work more multipliers.

One way to keep your rate up near the end of the contest, when QSO's are harder to come by, is to set the packet window in CT to "needed QSO's on this band". That way, as stations are called out on the band you are on, you can judiciously add QSO's to your total by CQ'ing and also quickly jumping to a packet spot of a needed station, working the station, then returning to your CQ'ing on your run frequency. It takes some practice and a good signal that gets through quickly to do this, but it is certainly worth learning this technique.

Lastly, it goes without saying that your rate is severely impacted by the amount of time spent out of the seat. Contesting is hard work. That is why most of us collapse at the end of the contest. Staying in the seat, even when things get slow is important. Your results will always be better, if you persevere. Keep every station manned 24 hours a day!

Good luck and have fun in the M/2 category.

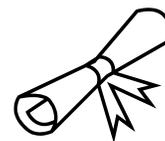
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KQ2M wins again!

Claimed scores to date show that Bob, KQ2M, has won the CQWW Single Op (Unassisted) All Band High Power category for the US. This is Bob's 3rd time in 4 years, and 2nd year in a row.

Graduation

Congratulations to Joe, **KQ3F** (*ye olde newsletter editor*) on his graduation August 2, 2003 with a B.S. in Geosciences (meteorology emphasis) from Mississippi State University. It's his third degree (at times the exams seemed like the third degree), but this was by far the most fun, fulfilling academically what's been a life-long hobby.



U.S. SPACE WEATHER SERVICE IN DEEP TROUBLE

For Fiscal Year 2004, starting October 1, 2003, the House Appropriations Bill for Commerce, Justice, and State continues Space Environment Center's funding at \$5.2 M (a reduction of 40% below the FY02 level). Worse, the FY04 Senate Appropriations Bill zeroes Space Environment Center and all space weather in NOAA, so services, data and observations, and archiving would all disappear if the final appropriation is at the Senate level. At the House funding level, starting October 1 SEC will rapidly lose about half its staff, negatively affecting its ability to serve the Nation with operational products, data collection, and R&D. Unless the appropriation level for Space Environment Center is restored to the level of the President's FY04 Budget Request, \$8.3 million, the Nation's civilian space weather service is in trouble. At the President's requested funding level, Space Environment Center can almost return to FY02 level of services, data, and R&D.

BACKGROUND

NOAA's Space Environment Center in Boulder, Colorado, provides a range of services to the Nation related to space weather phenomena. Among other activities, the Center is the unique provider of real-time monitoring and forecasting of solar and geophysical events, it conducts research in solar-terrestrial physics, and it develops techniques for forecasting solar and geophysical disturbances. That is, Space Environment Center is the Nation's space weather service, monitoring and predicting conditions in space, much as the National Weather Service does for meteorological weather. SEC jointly operates the Space Weather Operations Center with the U.S. Air Force and serves as the national and world warning center for disturbances that can affect people and equipment working in the space environment. It is the government's official source for alerts and warnings of disturbances. Customers include DoD, NASA, FAA, airlines, operators of electric power grids, communicators, satellite operators, the National Space Weather Program, and commercial providers of value-added space weather services. Partnering with researchers funded by NSF, NASA, and the DoD, Space Environment Center is the place where much of the nation's \$100s of millions annual investment in the National Space Weather Program and in space physics research is applied for the benefit of commerce, defense, NASA spaceflight, and individual taxpayers.

SEC's appropriation lines can be found in the Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), Office of Oceanic and Atmospheric Research portion of the Budget. In the omnibus appropriations Bill for FY 2003, the SEC received a severe cut to its budget of about 40%, with no explanation for the reduction. One-time funding additions have kept SEC afloat in FY2003. The President's Budget request is \$8.3 million for SEC in FY2004 (an amount consistent with its past budgetary levels), but the House Commerce-Justice-State Appropriations Committee provides only \$5.2 million, or roughly 40% less than the amount necessary to maintain SEC at its current operational effectiveness. Again for FY04, no explanatory text was included in the Committee Report to explain this reduction, and it far exceeds the 18 % reduction below request meted out to NOAA Research overall and the 1% reduction to National Weather Service's request. The Bill has not yet been acted upon by the full House. The Senate Appropriations Committee explains its termination of space weather in NOAA in the Report accompanying its Commerce-Justice-State Bill as follows.

Solar observation. - The "Atmospheric" in NOAA does not extend to the astral. Absolutely no funds are provided for solar observation. Such activities are rightly the bailiwick of the National Aeronautics and Space Administration and the Air Force. Needless to say, there is no evidence to suggest that NASA and the Air Force agree that one or the other, or both, should operate the Nation's civilian space weather service.

CONCLUSION

Unless SEC's appropriation level is increased in Conference, the best outlook is that Space Environment Center shrinks to less than half its capability (House mark), and the worst is that space weather will disappear from NOAA (Senate mark). In this case, the Nation's space weather service will have to be reconstituted in some other agency, at greater cost and lesser capability, to meet the Nation's needs.



FCC INVITES COMMENTS ON ADDITIONAL MORSE CODE-RELATED PETITIONS

The FCC has sounded the bell to begin Round 2 of the Morse code debate by inviting public comment on another group of seven Morse-related petitions for rulemaking. The FCC put the petitions on public notice October 8, and comments are due by November 7. Members of the amateur community may make their opinions known on any or all of these filings using the FCC's Electronic Comment Filing System (ECFS) <<http://www.fcc.gov/cgb/ecfs/>>.

The petitions are RM-10805 through RM-10811. To summarize:

- * Charles L. Young Jr, AG4YO, asks the FCC to delete the 5 WPM Morse code test (Element 1) for Technician-plus-Element 1 privileges (formerly "Tech Plus"). Designated RM-10805, his petition would retain Element 1 as an examination requirement for General and Amateur Extra applicants and give Technicians limited HF SSB privileges.
- * Describing CW as "the purest, most accurate, efficient, reliable and economical form of radio communications ever devised," Frank Napurano, K2OKA, requests that the FCC retain the 5 WPM Morse requirement "in the interest of public safety, the preservation of a radio art and as a tribute of support for a prized and respected avocation." The FCC designated his filing as RM-10806.
- * A petition by Robert G. Rightsell, AE4FA and Harry A.M. Kholer, N0PU, designated RM-10807, would continue Morse testing but give applicants up to 24 points of exam credit according to their success on Element 1. The final exam score would be the sum of earned Element 1 points and the written test score for a possible total of 100 points. Their petition also calls on the FCC to consolidate the Novice and Technician and the Advanced and Amateur Extra licenses, boost the number and range of written test questions and give new Technicians CW and data privileges.
- * Joseph Speroni, AH0A, seeks to have the FCC delete Element 1 for applicants who want to operate phone on HF but retain Element 1 at 5 WPM for applicants who want to operate CW. Designated RM-10808, his petition would restructure the Amateur Radio testing regime to require specific knowledge of "RTTY, data, image, spread spectrum, pulse/test, RACES/ARES and space communications only for those wishing to operate these modes." Under Speroni's plan, applicants would be under no obligation to pass mode-specific examination elements for mode privileges they don't wish to operate.
- * The Puerto Rico Amateur Radio League (PRARL) asks the FCC to delete Element 1 for Technician and General classes but to increase the rigor of the written elements for those two license classes. The PRARL would keep the 5 WPM Morse exam for Extra applicants. The PRARL also would eliminate same-session retesting and require 30 days between retakes. The petition is designated RM-10809.
- * James Roux, W4YA, proposes in his petition, designated RM-10810, that the FCC cut the number of license classes to two--General and Amateur Extra--and the number of written examination elements to one--at the General level. Roux's petition would eliminate the 5 WPM Morse code exam for General but require Extra applicants to pass a 15 WPM test. Roux also would give Generals all currently available amateur privileges except the Extra-class CW subbands.
- * A petition filed on behalf of FISTS CW Club <<http://www.fists.org>> would delete the requirement to pass Element 1 to obtain Technician plus Element 1 (ie, "Tech Plus") HF privileges. Designated RM-10811, it would merge Tech and Tech Plus into a single class, emphasize technical content, including digital modes, on written examinations and extend digital mode privileges within Novice/Tech Plus subbands. It would not provide additional HF phone privileges for Technicians, however. The FISTS petition would retain a 5 WPM Morse exam for General applicants and raise the Morse exam to 12 WPM for Amateur Extra applicants while increasing the technical level on written examinations for both classes.
- * The FISTS CW Club petition had attracted more than 230 comments by week's end. In all, the FCC had recorded a total of approximately 500 comments on the seven petitions as of October 10. Interested parties may file comments on any or all of these petitions using the FCC's Electronic Comment Filing System (ECFS) <<http://www.fcc.gov/cgb/ecfs/>>, which also permits users to view all comments on file. To file a comment, click on "Submit a Filing" under "ECFS Main Links." In the "Proceeding" field, type the full RM number and complete the required fields. "RM" must be in capital letters, and you must include the hyphen between "RM" and the five-digit number. You may type your remarks into a form or attach a file. ECFS also accepts comments in active proceedings via e-mail, per instructions on the ECFS page. To view filed comments, click on "Search for Filed Comments" under "ECFS Main Links" and type in the complete RM number, including the hyphen, in the "Proceeding" field. "RM" must be in capital letters.

N2SS
FRC DX NEWS
Editor

NOVEMBER

19TH YEAR

2003

**Notes From
Your Editor**

Update to my items for sale below, here's what's still available:

FOR SALE

- * **YAESU FT-817** 160 thru 440 5W QRP radio - used just twice
 - * **LDG Z-11** QRP automatic antenna tuner - new, never used
 - * **12V Int'l Power Supply** 100-240 VAC input, 13.5VDC output
 - * **Rigblaster Nomic** PSK31 interface (spoken for but not picked up yet)
 - * **Miracle Whip** collapsible HF antenna
 - * **ATX Walkabout** collapsible HF whip antenna
 - * **KENWOOD TM732A** 2M/440 transceiver – never used mobile
 - * **YAESU FT51R** 2M/440 handie-talkie w/several extra battery packs
 - * **MFJ 1278B** Multimode TNC and data terminal
 - * **QST Collection** 1930 to present
- If you are interested in any of the above, drop me an email at n2ss@n2ss.com or give me a call on my cell phone at 609-221-4899.

This month I've included the latest Solar Flux chart. With the major flares that have occurred during the latter part of October, the flux numbers have gone through the roof thus producing a real spike in the October monthly average figure. As I am writing this column, the A index is at an incredible 180 and the K is 7. A K index of 7 is extremely rare and essentially means turnoff the radio and get out your stamp collection.

**CURRENT OFFICIAL ARRL
DXCC STATISTICS**

Active Count.....	335
Deleted Count.....	58
Last Addition.....	VP6/D
Last Deletion.....	STØ

**3B9 –
RODRIGUEZ IS**

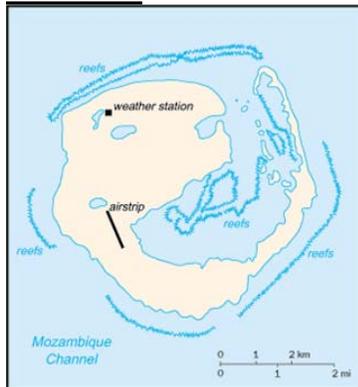
Look for **3B9/PAØVHA** on RTTY and **3B9/PA3BAG** SSB from November 10th to 14th. QSLs will be handled by PAØVHA. More details are available at: www.pi4cc.nl

3W – VIETNAM

XV9DT will be operating as **3W22S** until December 31st. This is the special event call for the 22nd South East Asian Games hosted by Vietnam. Logs are available on line at www.qsl.net/3w22s/logs

N5PO will be on from Ho Chi Minh City from November 25th to December 3rd as **XV2PO**. Operation will be limited to 40, 20, 15 and 10 Meters. QSL to home call.

**FR/E –
EUROPA**



F5CW, F5JKK, F5PHW, TR8SA, F5KIN, F5IRO, FØCRS and F1IWH will be operating as **TO4E** and **TO4WW** from Europa Island from November 24th to December 15th. They plan to operate all bands from 160 through 6 Meters on SSB, CW and RTTY. They will be operating with three stations: one dedicated for CW, one for SSB and one for digital modes and 6 Meters. On line logs will be available at: http://europa2003.free.fr/europa_2003-e.htm

Operating frequencies will be:

CW	SSB
160 1821	1851
80 3503-3530	3775-3795
40 7002-7022	7047-7057
30 10105-10115	
20 14014-14040	14274-14192
17 18073-18078	18138-18148
15 21021-21040	21271-21191
12 24894-24900	24954-24974
10 28040-28028	28460-28428
6 50101	50123

QSL via F5OGL at:

Didier Senmartin
P.O. Box 7
53320 Loiron FRANCE

SV/A – MT ATHOS

Some of you who have been part of my Dayton HRO multiple purchase negotiations may recall me mentioning George, K6SV at HRO who I have always done these deals with. George is of Greek heritage over the last several months he has been communicating with Monk Apollo to help him get back on the air. George left for Greece in mid-October on vacation, taking to Monk Apollo a new Icom IC-756 ProII and power supply donated by Icom. In addition to bringing the radio George was also going to help install all the previously donated antennas. So, with a big thank you to K6SV, we should soon be hearing a big signal from Monk Apollo.

**T32 –
EASTERN KIRIBATI**

NØKV as **T32KV** and KØMP as **T32MP** plan to be operating from November 23rd to December 7th on CW, SSB, RTTY and PSK31. They will be on all bands 160 through 10 Meters. QSL to their home calls.

V6 – MICRONESIA

WF5W and W5PF will be active as **V63WC** and **V63PF**, respectively, from Yap Island (OC-

012) on the 22nd to 29th of November. They will run 100 watts into wire dipoles for 30 and 40 Meters and a have a 2 element beam for 20 through 6 Meters. The operation will be CW and SSB. QSL via W5PF.

**VK9C –
COCOS KEELING**

Now through November 10th look for **VK9XYL** in an all XYL DXpedition by VK3DYL, VK4SJ and VE7YL. Operation will be on 80 through 10 Meters on SSB and CW. QSL via VK3DYL.

November 27th to December 7th will find JA1KJW and JA8VE signing as **VK9CJ** and **VK9CV** on 160 through 10 Meters operating CW, SSB, RTTY.



For tracking purposes the top IOTA numbers currently are as follows (Note the addition this month of 1 for Oceania):

Africa.....	AF-094
Antarctica.....	AN-018
Asia.....	AS-168
Europe.....	EU-188
North America.....	NA-225
Oceania.....	OC-264
<u>South America.....</u>	<u>SA-093</u>
Total IOTA's	1050

Information

AS-085 DS2GOO, DS5BSX and DS4NYE were scheduled to be active from Soan Island as /4 from November 1st to 4th. QSL via their home calls.

***OC-264** IT9EJW was on as FO/IT9EJW to activate Maria Island in the Australs for the first time.

Upcoming

AF-073 By 21 ops (incl 3 YLs) from Kerkennah Is on 160 through 6 Meters with 5 stations on all modes. **NA-037** AD5OZ will be active as KL7FBI from Shemya Island on October 8th-14th. Operation will be mostly CW on 80 thru 20 Meters. **SA-086** A group led by CE6TBN will sign as 3G2D from Damas Is November 25-28th.

"S"pecial "S"alute

Have you made your contribution yet? Contribute to your Newsletter and get the "S" "S".

©

73, Tony N2SS

You can reach me as follows:
H:856-227-4896 C:609-221-4899
n2ss@n2ss.com
argargano@comcast.net

**DX ALERT
LEGEND**

160 METER ALERT

IOTA ALERT

RITY ALERT

WARC BAND ALERT

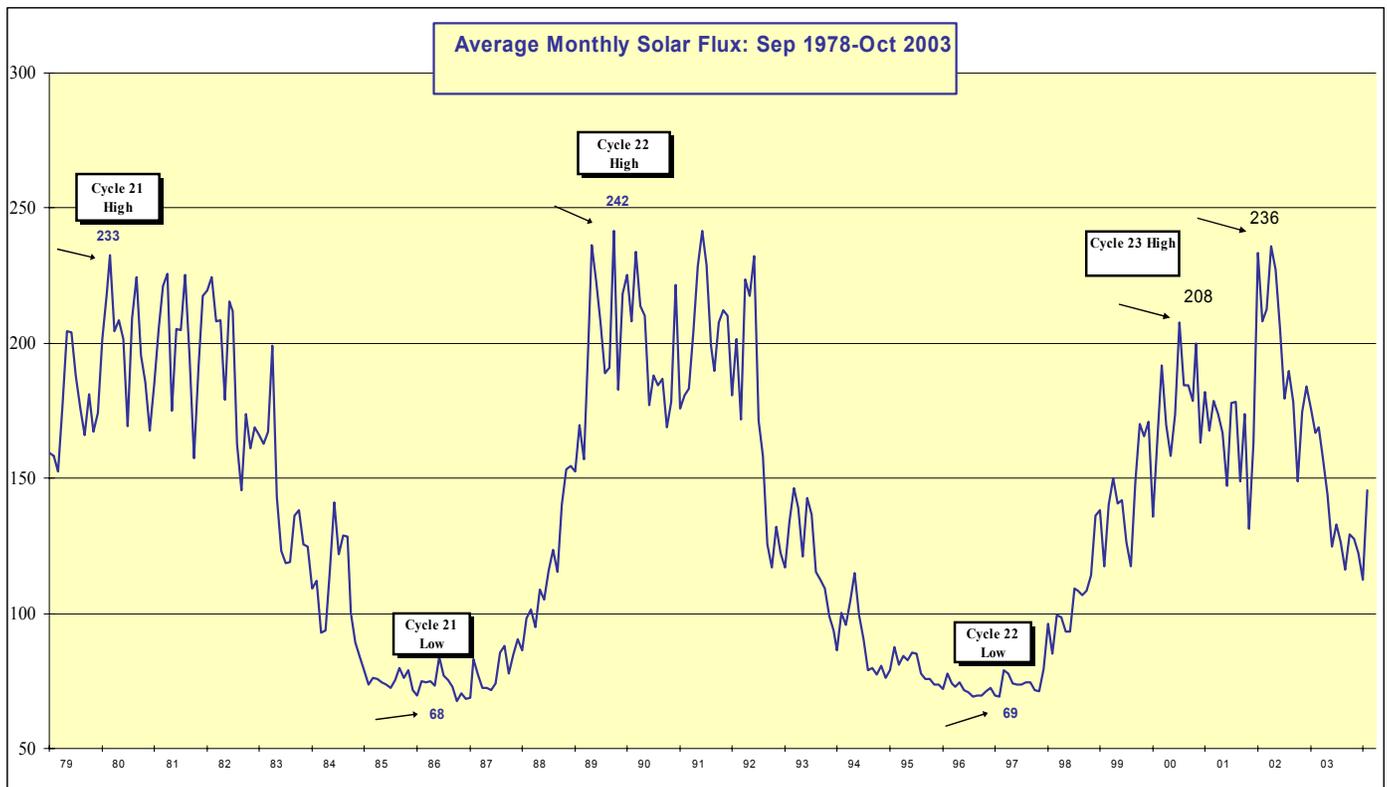
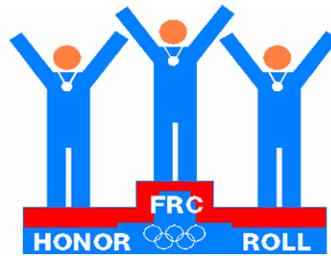


Figure 1. Complete Average Monthly Solar Flux from September 1978 Through October 2003



NOVEMBER

conducted by N2SS

2003

WARC BANDS

<u>30 Meters</u>	<u>17 Meters</u>	<u>12 Meters</u>
K2FL.. 327	K2FL...333	K2FL...325
N2TK324	N2TK 331	N2TK ..325
N2LT309	N2LT 329	N2LT 316
W3BGN301	W3CF 329	W3BGN ... 307
K2RW290	K2RW 320	K2RW 296
W8FJ284	W3BGN ... 321	N2SS 296
W2YC281	N2SS 317	W3CF 282
K2PS275	K2PS 294	K2PS 265
N2SS274	WA2VYA .. 292	W3SOH ... 265
WA2VYA ..267	W2YC 289	W2YC 264
W3SOH223	W8FJ 286	WA2VYA. 261
K3II222	W3SOH 266	WT3W 258
W2LE205	WT3W 264	KS3F 232
W2UP204	N1RK 249	W8FJ 222
KS3F178	K3II 234	N1RK 221
K2BU175	W3OV 234	W2UP 206
AA2WN164	W2UP 233	K3II200 N3RD
N3RD164	KQ3F 232	KQ3F 199
WT3W162	KS3F 215	W2YR 181
W3OV150	W2LE 196	N3KN 176
KQ3F141	W2YR 194	K2NJ 162
NZ3O125	NZ3O 190	W2LE 161
W2YR124	K2JF 168	W3OV 160
K2JF112	N3KN 147	NZ3O 151
AB2E111	K2NJ 145	K2JF 135
K2NJ97	K3ND 110	AB2E 82
N3KN85	AA2WN ... 102	K3PP 53
N2VW71	N2VW 65	K3GYS 30
N1RK69	K3GYS 83	N2VW 27
K3PP68	AB2E 82	AA2WN 19
W3CF55	K3PP 60	K2WJ 17
K2WJ28	K2WJ 40	KB3FEE 3
K3GYS8		
KB3FEE1		

Still looking for that undisputed
KING OF WARC

Rules for FRC Honor Roll Listings.

Provide me with your total IOTAs worked, or countries (including deleted) worked for: WARC Bands, 160 Meters, Digital modes, Mobile, 6 Meters or your total for 80,40,20, 15 and 10 for 1.5K Club. Countries do not count until HQ Awards Committee takes action and announces a start date for a new country.

160 Meters

W3BGN289	KS3F 129
AA1K282	WT3W 127
K2BU260	K2PS 102
WT3Q250	K2RW 92
N2LT239	W2YR 80
N2TK239	N2VW 77
K3NW228	W3CF 77
K3SX223	N2SS 75
W8FJ192	K3NL 70
W2UP180	K2NJ 59
NO2R176	K3PP 59
K3JIG176	N1RK 41
K3NZ171	KQ3F 41
W3OV163	KB3FEE 38
W2YC156	K2JF 34
N3RS156	W2LE 27
K3II148	AA2WN 25
K3NM146	NZ3O 13
WA2VYA144	K3GYS 12
K2FL140	W3SOH 12
K3ND133	K2WJ 3

W3BGN continues as the undisputed
Top of Top Band.

Digital

W2UP335	W2YR 122
N2LT 326	K2JF 113
K2PS 275	W2LE 81
W3SB 268	N2SS 51
K2RW 231	WA2VYA 50
K2NJ 221	N1RK 42
W2YC 212	N2MR 28
N3KN 165	KQ3F 23
AA2WN 162	K3GYS 15
WT3W 155	K2WJ 12
K3PP 123	W8FJ 12



MOBILE DX

W2YC274	AA2WN 131
AA1K 262	WT3Q 107
N2SS 234	KB3FEE 48
N2MR 196	K3PP 46
K2JF 150	W2YR 21
K3GYS 143	



1.5K Club

K2FL..... 1705	W3CF 1403
W3BGN 1691	WT3W 1395
N2TK 1685	K2NJ 1383
N2LT 1658	W3SOH 1378
W2UP 1649	K2JF 1350
K2RW 1591	AA2WN 1295
W8FJ 1577	N1RK 1278
N3RS 1569	N2VW 1258
K2BU 1550	WT3Q 1162
W2YC 1511	K2WJ 1161
K2PS 1509	W3SB 1132
N2SS 1507	W2YR 1125
NO2R 1489	W2LE 1115
K3ND 1488	K3PP 1110
N3RD 1472	K3NM 1107
WA2VYA .. 1435	N3KN 1065
KQ3F 1412	NZ3O 945
KS3F 1407	KB3FEE 231



Islands On The Air

K2FL.....970	W3CF 253
N2SS 773	NZ3O 244
W3SOH 762	W2YR 226
W2YC 533	K2WJ 223
W8FJ 530	WT3W 218
N1RK 527	K3GYS 191
KS3F 319	KB3FEE 23
N2VW 259	



6 METER DXCC

N2LT..... 102	K300 60
K2NJ 95	N1RK 57
AA1K 94	N2SS 55
K2JF 94	W2YR 41
K2PS 81	K3PP 30
WA2VYA 75	K2RW 36
WT3W 65	W2YC 14
N3KN 61	



THE FRANKFORD RADIO CLUB NEWSLETTER

P. O. Box 431 Albury, PA 18011-0431



Affiliated Club

In This Issue

CQWW CW DXPEDITIONS

SOLAR STORMS

MULTI/2 OPERATION

SPACE WEATHER SERVICE TROUBLES

AND MORE!

**Deadline for December issue:
Sunday, November 23**

The Frankford Radio Club

Club Officers

President, K3NM , Joe Brue	570-992-6890
Vice Pres, W8FJ , John Schrader	610-279-6097
Secretary, K3ZV , John Lindmeier	215-632-2919
Treasurer, K2QM , Dan Marlow	609-683-5633

Committee Chairman

Repeater, K3NL , Nick Leipold	610-449-8910
Packet, N3RD , Dave Hawes	610-935-2684
Activities, N3AD , Alan Donziger	610-519-7032
Awards, K2QM , Dan Marlow	609-683-5633
Membership	

Newsletter & Roster

Editor, KQ3F , Joe Stepansky	717-657-9792
	Email: kq3f@comcast.net
Printing, K3ZV , John Lindmeier	215-632-2919

Repeater

2 meters, 147.27/147.87
Output PL tone, 114.8

Home Page

www.gofrc.org

Meetings

Meetings are held on the 2nd Tuesday of each month (Sep through May) at 8 PM at the University of the Sciences, Philadelphia. Summer meetings are held at member homes (one Saturday/ Sunday per month).

Packet Cluster Contest/DX System

144.910 N2MT
144.930 W3FRC
145.010 N3ED
145.650 K2TD
145.530 K3WW
145.530 AA1K
145.570 WT3Q
145.570 K2TW
145.590 N2NT
144.950 K3GYS
145.730 N2BIM
147.495 W3MM
145.670 W3PP
445.525 W3EA
445.850 N3BNA
TBA W2JT

Telnet DX Cluster

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