

FEEDBACK



FEBRUARY 2002

VOLUME 47 NUMBER 2



FEBRUARY MEETING

The meeting for the month of February will be held at the Massillon Senior on February 1, 2002 at 8:00 PM.

This is the first meeting for new President Gene Beckwith, N8KXR, and new Vice President, Richard Ross, KA8ZQH. This will be a great opportunity to meet the new officer's and give them a great welcome and wish them a great year! . Gene and Rich have some great ideas for the club in the coming year and let's show our support. Check out the picture below. They are the leaders for the year 2002!

Be sure to mark your calendar and plan on attending the February meeting of the Massillon Amateur Radio Club and start out the new year on the right foot!



New Officer's for 2002 (L-R) Outgoing President Don W8DEF, President Gene W8KXR, Vice Pres. Richard KA8ZQH, Trustee's Jim WA8GXM, Kip K8KIP, Gary KC8IHR, Treasurer Anne N8GAF, and Secretary Linda K8MOO.

- SHORT SKIP -

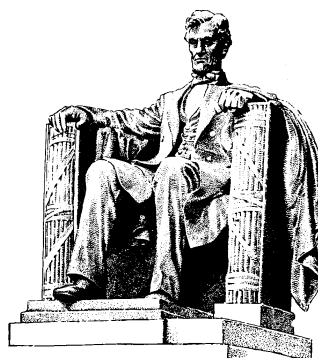
Live long enough and you'll read about your past in a history book. Cold War SWL's can do just that in a new book in the works by Gordon Adams, G3LE0. The book covers the short-wave radio wars from WWII, Tokyo Rose, Moscow Molly, underground radio and beyond. Why, I can recall tuning my mighty S-120 to 7.160 Mc. and hearing about the good life in the workers paradise and their latest 5 year plan (HI). So stay tuned Bunkey, this could be a most interesting book.

All the best to your family and you in 2002 !

DE WB8OWM

(Ed note: this article reprinted; less mistakes from last month's Feedback. I receive about 10 -20 articles a month for publication and when this was printed, I guess it slipped through without spell checked. Sorry Skip!)

PRESIDENT'S DAY FEBRUARY 18



MARC MINUTES
Saturday January 12, 2001
Awards Dinner Banquet

The Awards Dinner Banquet was held at the Perry Grange with 57 members and guests present.

A round of introductions was made. The blessing was given by Les Peine, K8CP, then everyone was served a delicious family style meal prepared by the good people at the Perry Grange.

Larry Rain WD8IHP gave a very informative and interesting speech about Sept. 11th disaster's in New York and Washington DC. He asked the BIG Question, Are We Prepared?? Larry also passed out some pictures of the Twin Towers Ground Zero in New York City.

Don W8DEF gave his last official speech of the year. He went over all the MARC accomplishments in 2001. He then presented the MARC Awards.

Congratulation goes to...	Special Merit Award	Jeff McKinney KC8KIX
	A-1 Operator	Bruce Putnam AB8FB
	Field Day	Gary Blagg KC8IHR

Absent were	Ham Of The Year
	Public Service Award
	Life Membership

These Awards will be given at the February MARC meeting.

Perry W8AU then gave certificates for some great accomplishments also some humorous ones for things that happened in 2001.

Mike Robinson, KI0DE, President of the Canton Club presented MARC with the Field Day Trophy. This marks the third year in a row that MARC has won the award!

Don W8DEF then presented Gene W8KXR with the Presidential Gavel and introduced the officers for 2002.

President;	Gene Beckwith,	W8KXR
Vice President;	Richard Ross,	KA8ZQH
Trustee	Jim Farriss	WA8GXM
Trustee	Bob Kiplinger	K8KIP
Trustee	Gary Blagg	KC8IHR
Treasurer	Anne Ballinger	N8GAF
Secretary	Linda Finley	K8MOO

Congratulations to All!!

Numerous Door prizes were given and congratulations goes to Don KC8RPE for winning the 50-50.

Minutes by Linda K8MOO Secretary MARC

THE 2001 PUBLIC SERVICE REPORT

2001 started off as just another year for public service here in Stark County with area amateurs participating in the normal community events that occur throughout the year.

That all changed on September 11th as life in this country changed forever and amateur radio operators from around the country rallied in what many are calling Amateur Radio's Finest Hour. Since then there has been a resurgence in volunteer spirit in the Amateur Radio Emergency Service throughout the country including here in Stark County. With limited space here in this column let me give you a quick and short recap of our public service events during last year.

In a higher than normal turnout 67 amateurs participated in 10 public service events last year that totaled 503.50 hours of community service. This represents an increase of about 2 percent over 2000. This is a good sign as it means more of you are getting involved in public service events. The list below shows the events covered during the year and the volunteer hours spent covering the event.

The MS Walk	-	55.00	hours
Mercy Health Run	-	7.50	
" Carnation City Triathlon	-	53.00	"
HOF Kickoff Run-		10.00	"
HOF Kickoff Parade-		54.00	"
HOF Grand Parade Medical-		60.00	"
HOF Grand Parade	-	140.00	"
CROP Walk	-	21.00	"
Massillon Holiday Parade-		82.00	"
The 911 WTC Events	-	21.00	"

This was a run down of the major public service events that amateurs from Stark County participated in during 2001. This does not include the countless hours spent in numerous other community related endeavors such as Field Day exercises, Safety Breaks, The annual Simulated Emergency Test, Severe Weather Spotter activities plus many others that could easily triple the volunteer hours mentioned above. That breaks down to a major public service event nearly every month during 2001. That's what I call getting involved. You all deserve a pat on the back and I appreciate all of you efforts during last year.

I would like to single out the following ARES members whose outstanding volunteer spirit continues to carry on a proud tradition of community service. Please join me in recognizing the following amateurs for exemplary service throughout the year.

Don Wade - W8DEA, Jason Stroll - KC8LIN, Paul Burke - KB8VAS, Ruby Burke - KC8AWU, Cathy Story - KC8EUC, Don Finley - W8DEF and David Beltz - WD8AYE.

A complete breakdown will be posted on both the club website and the Stark County ARES website as soon as time permits.

Public Service communications will forever change as a result of the events of September 11, 2001 and we must all be prepared to accept the new responsibilities that it will bring. We must renew our commitment to the ARES and im-

prove our operating skills and realize that one day YOU may be called upon to serve our local community and indeed our country. It will be a challenge for all of us, but with hard work and dedication I know we can achieve our goal.

.... W8NP.ORG or MARCRADIO.ORG

Which one do you like ? Each one has merit. W8NP.ORG is certainly unique to our radio club. It's also easy to remember, much easier than www.qsl.net/w8np. The trouble is that maybe its too unique. Only other ham operators will know exactly what it means. MARCRADIO.ORG is a little more general in nature. Perhaps it would have a little more universal appeal. Remember, the purpose of our website has always been to educate and inform everyone of both our hobby and our club, not just other amateurs. Do you have something that you like ? Why not think about it and at the club meeting we can through out a couple of ideas. It's the first step to taking our website to the next level. There are many other useful things our website can do for us but we are limited in its options right now. A new webhost will cost us a few dollars each year, about \$70.00. Do we want to make a change ? What do you think ?

Sorry I half to cut things a little short this month, for the next three months I'm in school on Tuesday & Thursday nights catching up on some new computer training. It isn't leaving much spare time for radio or anything else for that matter. I will however be at the club meeting (a man must have his priorities).

73's for now

Terry - N8ATZ



Guest Speaker Mr. Larry Rain, WD8IHP, at the MARC Awards Banquet

SATELLITE RADIO

XM radio is a satellite based Digital Audio Radio Service that will be available in our area early in February 2002. It will provide about 100 channels consisting of music, news, and other content that will be transmitted by two satellites in geostationary orbit. A special radio will be needed to receive these transmissions which are in the 2 GHz area. Listeners will need to pay \$10 per month for the service. The goal of XM is to provide CD-quality sound to listeners anywhere in the USA. The programming will originate from XM's central headquarters in Northeast Washington. The Associated Press, Bloomberg, Discovery, ESPN, ABC News, The Travel Channel, Learning Channel and BBC will all have channels on XM.

On March 23, 1998, XM Satellite Radio Inc. and Boeing Satellite Systems, Inc. signed a contract for two 702 model satellites. They are to be named "Rock" and "Roll". The contract, amended in June 1998, calls for Boeing to deliver two high-powered satellites for launch using the Sea Launch vehicle. Boeing also has parts for a third backup satellite.

XM and Sirius are the only two satellite companies licensed by the FCC to provide Digital Audio Radio Service in the USA. XM is a privately owned company by American Mobile Satellite Corporation. Its Partners include Clear Channel Communications, Inc.; General Motors corporation; Direct TV, Inc.; Telcom Ventures LLC; Columbia Capital; and Madison Dearborn Partners.

The XM service utilizes 2 high-power satellites that have already been launched. Each satellite has 25 kW of transmission power in a geostationary orbit over the Western Hemisphere. These satellites will reach most people in the continental US except those with obstructed views in larger cities, around mountains, or in buildings. To solve this problem some 1,700 terrestrial repeaters in cities and urban areas will ensure that reception remains interference-free. Both the repeaters and the satellites can be received in vehicles with special car antennas.

XM is a unique digital audio radio payload built by Alcatel Space Industries. The payload has two active transponders, each with 16 active 228 watt traveling wave tube amplifiers generating approximately 3,000 watts of RF power. This makes it the most powerful commercial satellite ever built. The XM-1 satellite also known as "Rock", was launched on March 18, 2001. The launch site was located on the Equator at 154 degrees west longitude, in the open waters of the Pacific Ocean. A 200 Ft Russian Zenit 3SL rocket lifted the 10,297 lb XM-1 into geosynchronous orbit. The satellite's final position is over the Equator at 115 degrees west longitude. This was the first of Sea Launch's two back to back missions for XM Satellite Radio Inc (XMSR). These Boeing 702 models will generate 18 kilowatts of total power at the beginning of their life in orbit. These were designed and built at their Los Angeles area factory.

"Rock" has two 16.4 ft folding deployable S-band transmitter reflectors and one X-band global receive antenna. The satellite spans 132.5 feet in length and 46.6 feet in width, with antennas fully deployed, and has a total spacecraft power of 18 Kilowatts. To generate power that high, each of the satellite's two solar wings employ five panels of high-efficiency, dual-junction gallium arsenide solar cells developed by Spectrolab, Inc. In order for the satellite to provide 15 years of service, the Boeing 702 carries the flight-proven xenon ion propulsion system (XIPS) for all on-orbit maneuvering.

After the 2:33pm PST launch, everything went as planned. The first signals from the satellite were heard by ground stations in Australia at 6:43pm EST. "Today's flawless launch puts one of the final pieces in place to kick off XM's revolutionary new radio service on schedule this summer," said XM President and CEO Hugh Panero.

"We now have a satellite in the sky, XM-ready radios on retail shelves, our chipsets in production, and our state-of-the-art broadcast studio humming. First there was AM, then FM, and now XM. Radio will never be the same." "We are extremely happy to launch the first of two XM Satellite Radio spacecraft," said Randy H. Brinkley, president of Boeing Satellite Systems. "I'd like to congratulate Hugh Panero and the entire XM team on this historic day."

On May 8, 2001 XM-2 or "Roll" was launched from the Sea Launch Company's Odyssey Launch Platform at the equator. Using the Russian Zenit 3SL rocket, the satellite was launched at 6:10pm EDT. Signals were heard from "Roll" about 70 minutes later in Perth, Australia indicating that all systems were operating normally. This satellite was also built by Boeing Satellite Systems (BSS). It has an orbital slot at 85 degrees west and is identical to "Rock". There are plans for a third spare satellite.

XM's main competitor is New York based Sirius Satellite Radio that will also broadcast 100 channels of commercial free radio. Sirius received their license from the FCC back in 1997. Their priorities are very similar to XM's. Sirius' media partners include National Public Radio, Fox News and The Weather Channel. Both satellite firms will broadcast content from CNBC, Bloomberg News and Discovery Radio. On November 19, 1999 the SCI FI Channel signed an agreement to create a SCI FI radio channel on Sirius.

Sirius's [SIRI] services uses 3 satellites to cover the United States with their radio programming instead of XM's two satellites. All three and one backup were built by Loral Space and Communications manufacturing facility in California. The satellites will fly in an elliptical orbit so at least two of them are over the US at all times.

Sirius One was launched on June 30, 2000 at 6:08p.m EDT from the Kazakstan desert on board a Russian Proton rocket. Sirius Two was launched on September 5, 2000 at 5:44 am EDT to begin a two-and-a-half hour flight. This launch was from a Russian Proton rocket and was working by the end of the day. Sirius Three was launched on November 30, 2000 at 2:59 p.m. EDT from the Baikonur Cosmodrome desert. This last successful launch completed the service. Sirius ordered a fourth satellite for a ground spare but was significantly damaged by Loral Space and Communications.

In December 2000, Sirius completed testing on their system and started their first programming in mid January 2001. They were planning to start programming a few months sooner, but were not able to due to problems with the receiver's digital radio chip set.

Due to poor economical times both Sirius and XM lost money last quarter. Both companies have reportedly spent more than 1 billion dollars and need to raise even more money this year to stay afloat. One thing that will help both companies is that major automakers have a big interest in seeing satellite radio succeed. For the moment, GM is bringing out the service early this year only on two Cadillac models, the DeVille and Seville sedans

Usually, features like radios are decided years before cars hit the market to allow plenty of time for testing. But since the satellite-radio services weren't available even for demonstration until quite recently, there has been nothing for the engineers to test. "It's been a bit of a culture shock," Mr. Lee says.

Ford Motor Co., which has a deal with Sirius, isn't saying on which models it's offering the service. A spokesman will only say that Sirius is likely to show up as an option on one or two higher-priced vehicles sometime this year. Squeezing the extra antenna and receiver box into cars has also proven a challenge Ford says. Visteon Corp., which makes the radios for Ford, says it will begin delivering them in late 2003.

Sirius's other big partner, Daimler Chrysler, isn't planning to build in radios at the factory initially, according to Karenann Terrell, the executive responsible for satellite radio. Instead, it will prewire some cars so dealers can install radios for customers who want them. XM is hoping to have 100,000 subscribers by the end of 2001, reaching to over a million by late 2002.

Several manufactures have XM radios on the market such as Sony, Alpine, Pioneer, Clarion, Blaupunkt, Delphi-Delco, Visteon, Panasonic, and Sanyo. These radios will start at around \$250, not including subscription fees.

Wall Street has expectations that Sirius will have fewer than 50,000 subscribers by the end of this year (2001), reaching the million milestone sometime in 2003 and break even sometime in 2005. Subscription fees account for about 85% of revenue. Due to the loss in profit, Sirius plans to increase the monthly subscription from \$9.95 to \$12.95. Sirius radio will target the drive audience and XM will target both the portable and home markets, say analysts. This is how two very similar companies can support themselves in the marketplace. "Since its national debut in mid-November, XM Satellite Radio has sold 25,000 to 30,000 subscriptions to its new national radio service XM Radio's arrival in time for the holiday season enabled it to take a substantial lead over its single competitor, Sirius Satellite Radio, the only other satellite radio license holder. Sirius plans to begin its service in February in Phoenix, Denver and Houston, but is now saying it will not have nationwide service until the third quarter." Laurie J. Flynn writing in The New York Times January 7, 2002

Here are some specifications for XM's satellites
Dimensions: Solar Arrays are 132.5ft fully extended. Height: 23ft. Weight at launch: 10,297lb In space: 6,505lb

Power: 18Kw at beginning of life and 15.5 Kw at end.
2 wings each with 5 panels of dual-junction gallium arsenide solar cells. 56 cell NiH batteries

Propulsion: Liquid Apogee motor at 110lbf

Payload: S-Band: 13.3 kW Digital Audio Radio with 2 active transponders each with 16 active (6 spare) 228w TWTAs

Antennas: 16.4ft folding deployable S-band transmit reflectors. 1 X band global receiver.

Thanks to www.space.com, www.xmradio.com, and www.siriusradio.com

**73 until next month,
Jason Stroll (KC8LIN)
2002 Jason Productions**

ARRL NEWS

ARLB001 W1AW 2002 Winter Operating Schedule

ZCZC AG01
QST de W1AW
ARRL Bulletin 1 ARLB001
From ARRL Headquarters
Newington CT January 2, 2002
To all radio amateurs

Morning Schedule:

Time	Mode	Days
1400 UTC (9 AM EST)	CWs	Wed, Fri
1400 UTC (9 AM EST)	CWf	Tue, Thu

Daily Visitor Operating Hours:

1500 UTC to 1700 UTC - (10 AM to 12 PM EST)
1800 UTC to 2045 UTC - (1 PM to 3:45 PM EST)

(Station closed 1700 to 1800 UTC (12 PM to 1 PM EST))

Afternoon/Evening Schedule:

2100 UTC (4 PM EST)	CWf	Mon, Wed, Fri
2100 " "	CWs	Tue, Thu
2200 " (5 PM EST)	CWb	Daily
2300 " (6 PM EST)	RTTY	Daily
0000 " (7 PM EST)	CWs	Mon, Wed, Fri
0000 " "	CWf	Tue, Thu
0100 " (8 PM EST)	CWb	Daily

0200 " (9 PM EST) RTTY Daily
 0245 " (9:45 PM EST) VOICE Daily
 0300 " (10 PM EST) CWf Mon, Wed, Fri
 0300 " " CWs Tue, Thu
 0400 " (11 PM EST) CWb Daily

Frequencies (MHz)

CW: 1.818 3.5815 7.0475 14.0475 18.0975 21.0675 28.0675
 147.555

RTTY: - 3.625 7.095 14.095 18.1025 21.095 28.095
 147.555

VOICE: 1.855 3.990 7.290 14.290 18.160 21.390 28.590
 147.555

Notes:

CWs = Code practice (slow) = 5 - 7.5 - 10 - 13 - 15 WPM

CWf = Code practice (fast) = 35 - 30 - 25 - 20 - 15 - 13 - 10 WPM

CWb = Code Bulletins = 18 WPM

CW frequencies include code practices, Qualifying Runs and CW bulletins.

RTTY = Teleprinter Bulletins = BAUDOT (45.45 baud) and AMTOR-FEC

(100 Baud). ASCII (110 Baud) is sent only as time allows.

Code practice texts are from QST, and the source of each practice is given at the beginning of each practice and at the beginning of alternate speeds.

On Tuesdays and Fridays at 2330 UTC (6:30 PM EST), Keplerian Elements for active amateur satellites are sent on the regular teleprinter frequencies.

A DX bulletin replaces or is added to the regular bulletins between 0100 UTC (8 PM EST) Thursdays and 0100 UTC (8 PM EST) Fridays.

In a communications emergency, monitor W1AW for special bulletins as follows: Voice on the hour, Teleprinter at 15 minutes past the hour, and CW on the half hour.

FCC licensed amateurs may operate the station from 1500 UTC to 1700 UTC (10 AM to 12 PM EST), and then from 1800 UTC to 2045 UTC (1 PM to 3:45 PM EST) Monday through Friday. Be sure to bring your current FCC amateur license or a photocopy.

The W1AW Operating Schedule may also be found on page 104 in the January 2002 issue of QST or on the web at <http://www.arrrl.org/w1aw.html>.

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ARLB007 ARRL Board Adopts Modified Novice Band Refarming Plan

ZCZC AG07

QST de W1AW

ARRL Bulletin 7 ARLB007

From ARRL Headquarters

Newington CT January 22, 2002

To all radio amateurs

SB QST ARL ARLB007

ARLB007 ARRL Board Adopts Modified Novice Band Refarming Plan

The ARRL Board of Directors has adopted a modified proposal to reform the Novice bands, now that the FCC no longer issues Novice licenses. The Board met January 18-19 in Fort Worth, Texas.

The ARRL Novice Spectrum Study Committee had proposed allowing Novice and Tech Plus (or Technician with Element 1 credit) licensees to operate CW on General-class 80, 40, 15 and 10-meter CW segments at up to 200 W output. The panel recommended refarming the current Novice/Tech Plus CW subbands, in part to allow expansion of phone allocations on 80, 40 and 15 meters.

The Board approved a modified plan that would leave in place or slightly trim the amount of additional phone spectrum the committee had recommended for 75 and 15 meters. The amended plan would drop the US phone band to 3725 kHz on 75 meters but leave it at 21,200 kHz on 15 meters. The original plan called for dropping both by 25 kHz.

The 75-meter proposal would expand the phone band by 50 kHz for Generals over the present allocation and by 25 kHz for Advanced and Extra licensees. On 15 meters, Generals would get another 25 kHz of phone spectrum, but phone privileges for Advanced and Extra class operators would stay the same.

The Novice Spectrum Study Committee's original recommendations for 40 and 10 meters were accepted. The ARRL plans to propose the modified refarming plan to the FCC later this year along with other regulatory requests.

The Board also deferred until its July meeting a decision on whether to cut "Section News" and contest "line scores" from QST and move them to the ARRL Web site as part of an effort to stem ARRL operating losses. Before deciding to relocate the QST content, the Board said, it wants members to be "aware of the reasons for the proposed relocation and the enhanced capabilities available on the Web site." The Board said it also wants to evaluate "variations and alternatives" to the proposal.

The Board did decide to eliminate the minutes of its own meetings—published as "Moved and Seconded"—from QST. Minutes already are posted on the ARRL Web site and will be made available via alternative means to members lacking Internet access.

The Board also voted to accept several changes to the field organization rules, as the Volunteer Resources Committee recommended. According to the new rules, "The Section Manager is accountable for carrying out the duties of the office in accordance with ARRL policies established by the Board of Directors and shall act in the best interests of Amateur Radio." Section managers will be proscribed from "committing, obligating, or binding the League" without review by the Field and Educational Services Manager and approval of the ARRL president.

Among other changes, the revised rules will prohibit a section manager removed from office for running in the next SM election following removal. Anyone removed by action of the Executive Committee would have to get that committee's consent to be eligible to run again. The Executive Committee also will have the power to cancel any field organization appointment "whenever it appears to be in the best interest of the ARRL to do so."

The Board also modified the ARRL by-laws to say that anyone removed from office by recall "shall not be eligible to be a candidate for director or vice director for three years following removal from office."

The Board further resolved to petition the FCC for reconsideration in ET Docket 98-156, by comments in ET Docket 01-278, and "by other necessary means" in order to elicit "a clear statement from FCC acknowledging the limit of its statutory jurisdiction to authorize the manufacture and sale of unlicensed Part 15 devices."

The Board resolved to extend the ARRL's "most sincere condolences to the families and friends of the radio amateurs who lost their lives on September 11, 2001." The Board also commended and honored amateurs "who generously volunteered their time and expertise during the rescue and recovery efforts on September 11 and thereafter."

The Board holds its next meeting in July in Windsor, Connecticut.

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/EX**

Everyone enjoying dinner at the Awards Banquet!!



ARLD004 DX news

ZCZC AE04
QST de W1AW
DX Bulletin 4 ARLD004
From ARRL Headquarters
Newington CT January 24, 2002
To all radio amateurs

This week's bulletin was made possible with information provided by Tedd, KB8NW, the OPDX Bulletin, VU2SBJ, The Daily DX, 425DXnews, QRZ DX, DXNL and Contest Corral from QST. Thanks to all.

VIETNAM, 3W. Sam, JA1EUI is QRV as 3W3ZZ until January 31. Activity is on 80 to 6 meters using SSB. QSL to home call. Meanwhile, Coly, 3W2FM, has been QRV on 80 meters around 1130z, and then on 40 meters around 1230z. QSL via UA0FM.

MALDIVES, 8Q. Steve, G4JVG is QRV as 8Q7SL from Lhohifushi, North Male' Atoll, IOTA AS-013, until February 3. He is active on 80 to 10 meters using SSB. QSL to home call.

EAST MALAYSIA, 9M6. 7M2VPR is QRV as 9M9/7M2VPR until January 27. His activity is on 160 to 6 meters. QSL to home call.

BHUTAN, A5. Ray, A52OM has been QRV on 80 meters around 1230z. QSL via G3NOM.

SOUTH SHETLAND ISLANDS. Ricardo, CE9R is active from Julio Escudero Base on King George Island, IOTA AN-010. QSL via CE3HDI.

MADEIRA ISLANDS, CT3. Hermann, HB9CRV is active as CT3FN from Porto Santo, IOTA AF-014, until February 14. He will participate in the CQ WW 160-Meter CW Contest. QSL to home call.

LIBERIA, EL. Ashley, EL2AR has been QRV on 20 meters around 0100z. QSL via EL2BA.

IRAN, EP. Stig, LA7JO is working for the United Nations here for two or three more months. He is allowed to operate from the club station of the PTT using the callsign EP3PTT. QSL via operator's instructions.

TURKMENISTAN, EZ. Jenny, EZ8AQ has been QRV using RTTY on 15 meters between 0900 and 1200z.

MAYOTTE, FH. Yvon, FH5CY has been QRV on 10 meters between 1200 and 1400z.

SOUTH SHETLAND ISLANDS. LZ0A has been QRV on 15 meters around 2300z, and then on 80 meters around 0140z and then 0500z. QSL via LZ1KDP.

ARUBA, P4. Bob, W6FRH is on vacation here and operating as P40RH in his spare time until January 29. He is active on the HF bands, using mostly SSB with some CW. QSL to home call.

BRAZIL, PY. Carl, PU1NEZ/PP1, Pete, PY1NEW/PP1 and Lima, PY1NEZ/PP1 are QRV from Frances Island, IOTA SA-067, until January 27. They are active using CW and SSB on 40 to 6 meters, including 17 and 12 meters. QSL PU1NEZ/PP1 via PY1NEZ, all others via home calls.

BANGLADESH, S2. Rashid, S21AR has been QRV on 15 meters around 1500z. QSL via JA1UT.

INDIA, VU. Members of the VUIOTA group will activate Sacrifice Rock, a new IOTA, in the Kerala State Group, from January 26 to 27. Activity will be on all HF bands, including 6 meters, using CW and SSB. QSL via operators' home call.

LAOS, XW. Mauro, IN3QBR is active as XW3QBR until July 31 from Vientiane. QSL via operator's instructions.

ANTARCTICA. Chris, KC4/N3SIG is currently active as ZL5CP from the New Zealand Scott Base on Ross Island, IOTA AN-011. QSL via AI3D.

THIS WEEKEND ON THE RADIO. The CQ WW 160-Meter CW Contest, Kansas QSO Party, REF French CW Contest, UBA Contest and the BARTG RTTY Sprint will certainly keep contesters busy this weekend. Please see January QST, page 107 for details.

NNNN
/EX

ARLP004 Propagation de K7VVV

ZCZC AP04

QST de W1AW

Propagation Forecast Bulletin 4 ARLP004

From Tad Cook, K7VVV

Seattle, WA January 25, 2002

To all radio amateurs

Average sunspot numbers rose over 9 points this week, and average solar flux dropped nearly 8 points, so solar activity was about the same as last week. There weren't any days with big geomagnetic upsets. Saturday was slightly unsettled, with the planetary K index at 4 over two of the 3-hour reporting periods. Because of lower indices earlier, the planetary A index for the day was only 11. As mentioned last week, for information on the relationship between the daily A index and the eight-times daily K index, check http://www.ngdc.noaa.gov/stp/GEOMAG/kp_ap.html.

Latest projections show stable geomagnetic conditions well into next month, with planetary A indices in the low and mid single digits. This is generally good for HF operators because of lower absorption. Predicted solar flux for Friday through Sunday is 225.

NASA reported this week that the previous two solar cycles were double-peaked, and the current one is also. At one time we believed that Cycle 23 peaked in mid-2000, but then a larger peak emerged in late 2001. No doubt this explains all that fabulous F2 layer propagation on 6 meters last fall. You can read NASA's story on the web at http://science.nasa.gov/headlines/y2002/18jan_solarback.htm.

Here are some general observations about HF conditions from the continental U.S. over the next few weeks.

Toward Europe, 80 and 40 meters open right after local sunset and stay good until the wee hours after midnight. 30 meters works all day and night, but is weakest during local mid-morning in the east and Midwest, and before sunrise on much of the west coast. 20 meters opens around sunrise. In the Midwest and east, conditions are best an hour or two before local sunset. This decreases as you move west, where 20 meters closes down before local sunset. 17 and 15 meters open around sunrise, and close earlier than 20 meters. 12 and 10 meters open for most of the U.S. about two hours after sunrise and close a few hours before sunset, but this shortens considerably as you move west.

Toward South America, 80 meters is best three hours after sunset until after midnight, and 40 meters one hour after sunset and closing an hour after 80 meters. 30 meters should be open from sunset until a few hours before sunrise, and 20 meters from before sunset until about four hours before sunrise. 17 and 15 meters should open around sunrise until two hours after sunset, and 12 and 10 meters from after sunrise until sunset.

Toward East Asia (Japan) 80 and 40 meters are best after midnight until an hour before sunrise. But on the West Coast, both bands should stay open until about an hour after sunrise. 30 meters is good from early evening until sunrise in the central states, but should be dead from the east coast during the early evening. On the West Coast 30 meters should be good from the late evening until an hour after sunrise. 20 meters should be best around sunset until the mid to late evening, but on the West Coast 20 meters is best from the mid until late evening, then again from local sunrise until about two hours later. 17 and 15 meters should be best for about four hours centered around local sunset, except on the West Coast where it lasts around six hours. 10 and 12 meters should be open for 1-2 hours around sunset, except on the West Coast where it should last around four hours.

Remember that the sunrise, sunset and times of day are for your location. As an example, local sunset in New York City is around 2200z, and in Central California it is after 0100z.

The above predictions are very general. To get a more accurate reading specific to your location, use W6ELprop to predict paths using the average solar flux for the previous few days. As mentioned in previous bulletins, you can download this free propagation

February 2002

Monthly Planner

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday																																										
<div>January</div> <table> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr> <tr><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td></tr> <tr><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td></tr> <tr><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td></tr> <tr><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td><td></td><td></td></tr> </table>					S	M	T	W	T	F	S			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			1 Massillon ARC Meeting	2
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3 Hamfest Elyria call John @216-696-5709 Stark County Mutual Aid Net 146.520 11:30 AM	4 Sloppy Fist Net every Monday thru Friday at 9PM on 28.138	5 EXAMS Akron call Ron @330-724-5981	6	7 7:30 PM QCWA (Chapter 21) Net, 147.180 KA8MMN BD	8 West Stark Info Net 147.180 at 8:00 PM	9																																										
10 Hamfest Mansfield call Scott@419-522-9893 Stark County Mutual Aid Net 146.520 11:30 AM	11	12	13	14 7:30 PM QCWA (Chapter 21) Net, 147.180	15 West Stark Info Net 147.180 at 8:00 PM	16																																										
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24 BD KC8ILZ BD WD8MIU Hamfest Cuyahoga Falls call Ted@330-688-2013 Stark County Mutual Aid Net 146.520 11:30 AM	25 Sloppy Fist Net every Monday thru Friday at 9PM on 28.138	26 BD N8VXT	27	28 7:30 PM QCWA (Chapter 21) Net, 147.180 BD WD8BGW																																												

If a mistake is found contact KA8ZQH