

# The Monitor

May 2007



## Upcoming Events

TSRC Meeting	May 12, 2007, 9:00 am EBA's, Hanover, NH
TSRC Meeting	June 9, 2007, 9:00 am EBA's, Hanover, NH
Field Day	June 23-24, 2007 Details TBA

## Message from the President

Last month's Nor'easter was quite a doozey. After all the trees were cleared from around my house I was left with exactly one ham antenna still in the air. My R5 was in more pieces than when it was new and my 80m dipole was not able to hold up several thousand pounds of white pine that landed on it. My 6m J-Pole and my 2m/440 Diamond are now fond memories. I'm sure I am just one of many hams in the area with big antenna headaches. The good news is that now I can rebuild with better gear and smarter placements to avoid this sort of loss in the future.

If you've had trouble like this recently, don't be afraid to ask for help. Twin State members are famous for their assistance to other hams.

What you missed: speaking of antennas and rebuilding, last month's club meeting saw a great presentation from Dave Colter, WA1ZCN, on tower safety. We are very lucky to have such an experienced tower person in the club.

After the repeater committee meeting Dave Colter and I traveled up Moose Mtn. to take another look at the repeater. We moved the receiver off the duplexer and onto the main antenna. Testing indicates that this has really improved the receive side of the repeater. The limiting factor now is how well (or poorly) one can hear the output of the transmitter. I am now able to hear stations that can't hear the repeater returning. Our hope is to line up some weekends for a work party to get the two remaining new antennas up on the tower and to troubleshoot the main 2m antenna. We will be discussing possible dates at the next meeting.

At this month's meeting we will get our slate of nominees for the upcoming election from the committee and we will be forming a field day committee so please plan on attending.

See you at the club meeting!

73 de KX1Y  
William Daugherty, TSRC President

## Listen Listen Listen CQ Contest Listen Listen Listen

Every month the Contest Corral in QST spreads the word about dozens of contesting opportunities. Some are regional events like the New England QSO Party -- a favorite among TSRC members -- while others are global events like the CQ Worldwide humdinger. Some are truly competitive whereas others might best be called operating events intended primarily to promote activity and the ham spirit. Whatever qualifies as your favorite flavor of ham radio operation there is probably a contest designed to bring you together with like minded folks.

Participating in contests is fun whether you have enough time to operate for the entire duration or whether you merely dabble for a few hours amid weekend chores. But suppose, heaven forbid, that you entertain thoughts of being a top finisher in an upcoming contest. Is that a realistic goal or just a pipedream? Well, many contests do have multiple entry classifications so you needn't compete against kilowatt stations if you are running only flea power. That helps put the odds in your favor. But surely all contest stations have stacked beam antennas, right? No, not so my friend. In a recent ARRL Sweepstakes contest one of the top-10 finishers used only an inverted-V antenna.

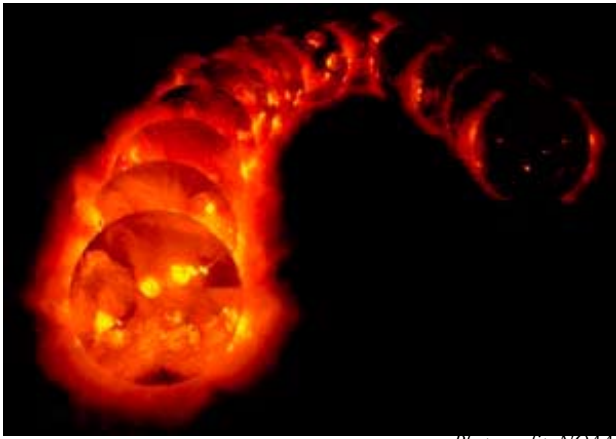
So, is it really possible to achieve respectable contest scores using a "modest" ham station? One of our members, Mill Moore, K1IB, says it is indeed possible and he is prepared to share his wisdom with us. Come to the next TSRC meeting and learn ways to pump up your contest scores.

Ken Tentarelli AC1H

## NOAA ANNOUNCES NEXT SOLAR STORM CYCLE WILL LIKELY START NEXT MARCH

April 26, 2007 — The next 11-year cycle of solar storms will most likely start next March and peak in late 2011 or mid-2012—up to a year later than expected—according to a forecast issued by the NOAA Space Environment Center in coordination with an international panel of solar experts. The NOAA Space Environment Center led the prediction panel and issued the forecast at its annual Space Weather Workshop in Boulder, Colo. NASA sponsored the panel.

Expected to start last fall, the delayed onset of Solar Cycle 24 stymied the panel and left them evenly split on whether a weak or strong period of solar storms lies ahead, but neither group predicts a record-breaker.



*Photo credit: NOAA*

During an active solar period, violent eruptions occur more often on the sun. Solar flares and vast explosions, known as coronal mass ejections, shoot energetic photons and highly charged matter toward Earth, jolting the planet's ionosphere and geomagnetic field, potentially affecting power grids, critical military and airline communications, satellites, Global Positioning System (GPS) signals, and even threatening astronauts with harmful radiation. These same storms illuminate night skies with brilliant sheets of red and green known as auroras, or the northern or southern lights.

Solar cycle intensity is measured in maximum number of sunspots—dark blotches on the sun that mark areas of heightened magnetic activity. The more sunspots there are, the more likely it is that major solar storms will occur.

In the cycle forecast issued Wednesday, half of the panel predicts a moderately strong cycle of 140 sunspots, plus or minus 20, expected to peak in October 2011. The other half predicts a moderately weak cycle of 90 sunspots, plus or minus 10, peaking in August 2012. An average solar cycle ranges from 75 to 155 sunspots. The late decline of Cycle 23 has helped shift the panel away from its earlier leaning toward a strong Cycle 24. Now the group is evenly split between strong and weak.

The first year after solar minimum, marking the end of Cycle 23, will provide the information scientists need to arrive at a consensus. NOAA and the panel decided to issue their best estimate now and update the forecast as the cycle progresses, since NOAA Space Environment Center customers have been requesting a forecast for more than a year.

“By giving a long-term outlook, we’re advancing a new field—space climate—that’s still in its infancy,” said retired Air Force Brig. Gen. David L. Johnson, director of the NOAA National Weather Service. “Issuing a cycle prediction of the onset this far in advance lies on the very edge of what we know about the sun.”

Scientists have issued cycle predictions only twice before. In 1989, a panel met to predict Cycle 22, which peaked that same year. Scientists met again in September of 1996 to predict Cycle 23—six months after the cycle had begun. Both groups did better at predicting timing than intensity, according to NOAA Space Environment Center scientist Douglas Biesecker, who chairs the current panel. He describes the group's confidence level as “high” for its estimate of a March 2008 onset and “moderate” overall for the two estimates of peak sunspot number and when those peaks would occur.

One disagreement among the current panel members centers on the importance of magnetic fields around the sun's poles as the previous cycle decays. End-cycle polar fields are the bedrock of the approach predicting a weak Cycle 24. The strong-cycle forecasters place more importance on other precursors extending over a several-cycle history. Another clue will be whether Cycle 24 sunspots appear by mid 2008. If not, the strong-cycle group might change its forecast.

“The panelists in each camp have clear views on why they believe in their prediction, why they might be wrong, and what it would take to change their minds,” said Biesecker. “We’re on the verge of understanding and agreeing on which precursors are most important in predicting future solar activity.”

The NOAA Space Environment Center is the nation's first alert of solar activity and its affects on Earth. Just as NOAA's hurricane experts predict the upcoming season of Atlantic storms and forecast individual hurricanes, the agency's space weather experts issue outlooks for the next 11-year solar cycle and warn of storms occurring on the sun that could impact Earth. Both the NOAA National Hurricane Center and NOAA Space Environment Center are among nine NOAA National Centers for Environmental Prediction, part of the NOAA National Weather Service. The NOAA Space Environment Center also is the world warning agency of the International Space Environment Service, a consortium of 11 member nations.

NOAA, an agency of the U.S. Commerce Department, is celebrating 200 years of science and service to the nation. From the establishment of the Survey of the Coast in 1807 by Thomas Jefferson to the formation of the Weather Bureau and the Commission of Fish and Fisheries in the 1870s, much of America's scientific heritage is rooted in NOAA. NOAA is dedicated to enhancing economic security and national safety through the prediction and research of weather and climate-related events and information service delivery for transportation, and by providing environmental stewardship of the nation's coastal and marine resources. Through the emerging Global Earth Observation System of Systems (GEOSS), NOAA is working with its federal partners, more than 60 countries and the European Commission to develop a global monitoring network that is as integrated as the planet it observes, predicts and protects.

*Original Story from NOAA.*

<http://www.noaaneews.noaa.gov/stories2007/s2847.htm>

## **Armed Forces Day Crossband Radio Communications Test Set**

The US Army, Air Force, Navy, Marine Corps and Coast Guard will co-sponsor the annual military/Amateur Radio Communications Tests to celebrate the 57th Armed Forces Day. Although Armed Forces Day falls on Saturday, May 19, the 2007 Armed Forces Day Military/Amateur Crossband Communications Test will take place a week earlier, on Saturday, May 12, to avoid conflicting with the Dayton Hamvention May 18-20. The annual celebration features military station-to-amateur station crossband tests on SSB and copying the Secretary of Defense message via digital modes. Full details on participating stations, times and frequencies are available on the Army MARS Headquarters Web site <<http://www.netcom.army.mil/mars/docs/ARMEDFORCESDAYFinal.doc>>.

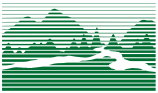
## CLUB OFFICERS

President: William Daugherty, KX1Y (603) 359-3745  
william@will-do.com  
VP: Ken Tentarelli, AC1H (603) 763-9296  
Secretary: Nancy Maynard N1QW (802) 295-6080  
Lensmaam@mindpictures.com  
Treasurer: Chuck Sherman N3WTO (802) 765-9630  
chuck.sherman@dartmouth.org  
Trustee: Dave Landry KA1CRP (603) 448-5788  
daveka1crp@verizon.net  
Editor: Mike Maynard, K1IH (802) 295-2650  
Lensman@mindpictures.com

## ELECTRONIC ADDRESSES

\*ARRL Website <http://www.arrl.org/>  
\*NH ARRL Home Page: <http://www.arrlnh.org/>  
\*Tom Frenaye K1KI-NE Div. Dir. [k1ki@arrl.org](mailto:k1ki@arrl.org)  
\*R. Sterling Eanes, AK1K, NH SM [ak1k@arrl.org](mailto:ak1k@arrl.org)  
\*Dale Drake, AA1QD, NH ACC [aa1qd@arrl.net](mailto:aa1qd@arrl.net)  
Part 97 <http://www.arrl.org/field/regulations/news/part97/>

Don't forget to check the TSRC Home Page!  
Make it your default start page!  
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Twin State Radio Club, Inc.  
PO Box 5078  
Hanover, NH 03755