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Solar Opposites: Forecasts for Sun's Activity Disagree Wildly

By Ben Iannotta, Space News Correspondent

The U.S.-led panel charged with predicting the intensity of the next cycle of sunspot activity will have to resolve highly divergent predictions issued this year by two leading solar forecasting modelers, according to solar experts at the American Geophysical Union meeting in San Francisco.

While some scientists are predicting a weak cycle, others are predicting a cycle that would be the most intense solar activity yet recorded.

Sunspots are cool, dark patches on the sun's surface that give rise to solar flares, streams of protons and X-rays that wear down the electricity-generating solar panels on satellites and increase the atmospheric drag on spy satellites, the Hubble Space Telescope and other low-Earth-orbiting spacecraft.

Solar flares also can disrupt communications with airliners traveling on polar routes, degrade the accuracy of GPS satellite signals (Continued on page 4)

Upcoming Contests

ARRL RTTY Roundup	6-7 Jan 07			
North American QSO Party CW	13-14 Jan 07			
North American QSO Party, SSB	20-21 Jan 07			
ARRL January VHF Sweepstakes	20-22 Jan 07			
CQ 160-Meter Contest, CW	27-28 Jan 07			
Minnesota QSO Party	3 Feb 07			
North American Sprint, SSB	4 Feb 07			
CQ WW RTTY WPX Contest	10-11 Feb 07			
North American Sprint, CW	11 Feb 07			
ARRL Inter. DX Contest, CW	17-18 Feb 07			
CQ 160-Meter Contest, SSB	24-25 Feb 07			
North American QSO Party, RTTY	24-25 Feb 07			
ARRL Inter. DX Contest, SSB	3-4 Mar 07			

The VHF Column -The Amazing Summer of 2006

By Kevin Kaufold, W9GKA

VHF activities in 2006 were at an all time high. Six Meter E skip openings commenced on May 19, with Zack, W9SZ, working large numbers of stations throughout the US. A few days later on May 25 through May 29, K9GY worked over 400 stations while at Nassau, Bahamas. Chuck, KI9A, was in this same opening up here in the black hole, and contacted several Caribbean and water grids. A few days after that on June 5, several SMC members, including Chuck, worked several JA's on 6 meters.

By the middle of June, the bands were sizzling. The June VHF QSO Party experienced some of the best 6 meter conditions in a decade. Many SMC members posted personal best scores in this event. Rare Canadian grids were easily worked on the first day

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The Black Hole



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Membership in **The Society of Midwest Contesters** is open to all persons with a bonafied interest in amateur radio contesting. The club doesn't collect annual dues, but instead funds everything through member donations. For more information contact one of the following officers:

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SMC Needs Your Financial Support

As one of the top contest clubs in the nation, we continue to sponsor plaques for a number of major contests including Sweepstakes, ARRL DX, CQWW, and CQWPX, as well as make monetary donations in the interest of promoting radio sporting.

A few years ago we decided to eliminate the formal dues of \$10 per year, and instead maintain funds through member donations. We encourage all members to consider making an annual donation to the club. Your generous donations allow us to continue to expand our support of radio sporting.

You can make your donation two ways:

N9OH

Steve

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2. Use Paypal and email your donation to dues@w9smc.com.

W9SMC

Official Callsign of The Society of Midwest Contesters

SMC Web Page: http://w9smc.com

SMC Stuff

To get your SMC stuff, see the last page of the newsletter or visit the SMC website, http://w9smc.com/merchandise.htm



SMC Website Redesign

By Brian Maves, K9QQ

Ten years ago I wanted to learn how to build web pages. Since we didn't have a presence on the web, I decided building an SMC website would be a great project to teach myself HTML and basic web design. And so, the SMC joined the other major contest clubs on the worldwide web.

When Pat took the lead for SMC, he said he really wanted to see a redesign of the website to update the look and make it more functional and informative. Content on the site has slowly grown and adapted to the whims of the club. I've redesigned it once, but unfortunately, web development and design is not my career, just a hobby, so technology has passed me by. I have a bunch of ideas for improving the site, but don't have the time to figure out how to make them work.

To get the expertise needed to build the site we want, I went looking for members who have current experience in design and coding. I've had a number of members offer to help, so over the next year a team of people will bring together a new and improved SMC website.

So far the team includes

Ralph, K9ZO Scott, KA9FOX John, N9MSG John, K9IJ Brian, K9QQ

I could certainly use a couple more people though. If you have current experience in web design and coding, or experience in managing web development projects, send me an email at k9qq@arrl.net.

I have a bunch of ideas for what I would like on the site, and I'm sure the team will have even more. Two sites that offer some ideas for what we want are the Florida Contest Group http://www.floridacontestgroup.org/ and Minnesota Wireless Association http://www.w0aa.org/. But we want to make this our own, so as we get the project going we'll be looking for ideas and suggestions from you. Take some time to look at what is currently on the SMC site, and what some of your favorite sites offer, so that when we come looking for your ideas you're ready to share them with us.



Contest University 07

By Brian Maves, K9QQ

It's time to start making plans for the annual trip to Dayton. This year, in addition to the traditional hospitality suites, contest forum, and contest dinner, K3LR is organizing a Contest University. It will be held at the Crowne Plaza on Thursday, May 17, the day before Hamvention starts. So plan on spending the day learning from some of the best contesters in the hobby and then join SMC for the annual Hooters gathering.

Tim has assembled a veteran team of contesters to share their extensive knowledge and expertise:

Jim, K8MR	Dave, W9ZRX
Dean, N6BV	Andy, N2NT
Randy, K5ZD	Jeff, N5TJ
Dick, N6AA	Mark, N5OT

The program will be pretty comprehensive and designed to appeal to both beginners and advanced contesters. They plan to cover everything from technical subjects like antennas and propagation, to practical operating techniques for everything from RTTY to mobile contesting.

On CQ-Contest K3LR provided the following details on the format. "There are two tracks. One for beginning contesters and one for more advanced guys. There are 8 solid hours of contest instruction. There are four one hour presentations (4 hours) where the group is combined and the information is on target for both audiences. There are 4 hours which will have 2 topics running at the same time (some are 30 min topics and some are 60 min topics). The double topics will have the beginner and advanced tracks. The instructors are very experienced and capable at both levels. I think beginners and advanced contesters will find the tracks and the presentations very helpful and worthwhile."

You must register in advance to attend. When Tim posted this to the reflector there were about 30 seats left. If you're interested visit the website:

http://www.contestuniversity.com



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and cause disruptions in electric power grids on Earth, said Bill Murtagh, a U.S. space weather forecaster.

Satellite manufacturers will review the new prediction, due to be completed in April, to make sure they are planning adequate radiation shielding on electronics and large enough solar arrays to cover the expected wear.

"There's an optimization that's done to try to size that appropriately. You don't want there to be too little, but on the other hand, you don't want to have too much," said Barry Noakes, the chief technology officer for Lockheed Martin Commercial Space Systems, in Newtown, Penn.

NASA is funding the work of the 12-person Solar Cycle 24 Prediction Panel, named for the upcoming sunspot cycle, the 24th since accurate records have been kept. Solar physicist Doug Biesecker of the U.S. National Oceanic and Atmospheric Administration's (NOAA) Space Environment Center in Boulder, Colo., chairs the panel, which met for the first time in October.

The panel's prediction will be the official solar-cycle forecast for NASA, NOAA and the International Space Environment Service, which operates 11 regional space weather warning centers around the world.

The task of forging a "single, clear voice for the user community" will be challenging because of the wide array of predictions that need to be reconciled this time around, Biesecker acknowledged, noting the contrast between those predicting a weak cycle and those predicting a cycle that would nearly rival the record setting Cycle 19 observed in the 1950s.

A similar prediction panel met 10 years ago, before the current solar cycle, and reached a unanimous consensus from predictions that spanned a narrower range. "In the previous cycle there was a tendency to believe it would be a big cycle. It was just a question of how big," Biesecker said.

At the meeting in San Francisco, Biesecker brought together two members of the panel who were scientists representing the two leading techniques for predicting sunspot activity.

Ten years ago, scientists using these techniques arrived at similar predictions. Now, their results are diametrically opposed, and it will be up to Biesecker's panel to reconcile them.

Solar physicist Dean Pesnell of Goddard Space Flight Center in Greenbelt, Md., believes that the best predictor of solar activity is the characteristics of the Sun's polar magnetic field. "If we look at the current value of the polar fields, they're way down here, about half of the field strength that was measured in the previous solar minimum. This leads us to produce a prediction that the next solar cycle will be relatively weak," he said.

Solar physicist David Hathaway of NASA's Marshall Space Flight Center in Huntsville, Ala., believes a better approach is to study fluctuations or vibrations in the intensity of Earth's own magnetic field as it reacts to streams of particles from the Sun during the current solar cycle.

"It's like listening to a freight train in the distance and trying to estimate the size of the train, but what we're listening to is the Earth's magnetic field," he said. "Listening to what the Earth's magnetic field [was] doing back in 2003, as it turns out, we find that it was a strong peak that suggests that the next cycle ought to be a big cycle," Hathaway said.

Hathaway and Pesnell said the situation facing the panel is interesting because in the past their techniques have pointed to similar results. "The surprising thing is they disagree so fundamentally this time," Pesnell said.

"As scientists, we need to get to the bottom of this as far as understanding how the sunspot cycle works," Hathaway said.

Biesecker said the panel would issue a prediction in April and update it after that, similar to the way hurricane forecasters issue updates.

"A year from April, we will revise our prediction... We [may] have discovered we were wrong spectacularly or we are headed in the right direction," Biesecker said.



(Continued from page 1) of the contest, and the south and southwest came in on the second day. Scott, KA9FOX, worked 2 meter skip into the east coast on Sunday of the event.

The SMC placed 2nd in the June club competition. This is the 3rd year in the last four that we have been in 2nd place. With almost 3 Million club aggregate points and 36 club log entries, we overwhelmed all other clubs except for Potomac Valley, who had 4.8 Million points and 36 log entries. Individually, we also had some amazing scores. For the 4th year in a row, Bob, K2DRH, won the national title in the SOLP, shattering his own national record in the process. K9NS won the national top spot in the multi-limited, also with a division record-breaking performance of 805K. Jerry, WB9Z, was 3rd in the nation in the SOHP and set a

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division record of 391K. Barry, N2BJ, won the multiunlimited central division at 219K and placed 10th in the nation. Zack, W9SZ, took the division in the QRP class and placed 5th nationally.

As momentous as the above efforts were, the depth of the club comes from so many others. Plus 50K scores came from 9 SMC logs: W09S, K9ZO, W9GKA, KA9FOX, K9CT, KE9I, N9AKR, K9SG (who won the multi-U in Indiana), and KS9Z (who won the multi-L in Missouri). Very solid scores also came from NG9R, KI9A, W9VA, AJ9C (who set an Indiana state record in the SOLP!), N9TF, N9GH, and AA9MY. 15 additional SMC members posted scores of under 20K, and every one of them should also be thanked for their efforts.

The force of SMC members continued beyond the circle, as several members conducted operations in far-flung areas. Sean, KX9X and NM9H, ran a grid DXpedition in western Missouri, EN20. K9JS operated in northland in EN46 as W9LAS, posting 71K. Pete, K9PW, returned to K3EAR in Pa as a single op, and sizzled with an 849K entry in the high power class.

At the national level, the June contest the contest drew the greatest number of participants (1048 entries) of any June test ever, going all the way back to 1948. The 40 Million points scored among all log entries is the biggest showing in any VHF contest ever, be it January, June, or September. The 200,000 plus contacts made by participants also dwarfs any other VHF contest.

The bands continued in great shape for the July CQ VHF contest, with Dave, AA9D reporting the strongest E skip he ever has experienced. Dave even had some 2 meter skip. Bob, K2DRH also felt that the contest had the longest and most intense skip as long as he has been contesting. Two SMC members, Jerry KE9I and AJ9C worked Europe on 6 meters immediately prior to the test. While not a club event, at least 15 SMC members participated in the CQ VHF.

The bands stayed alive afterwards. On July 18, Jon, WO9S, worked Europe on 6 meters.

By August, things had settled down a bit. Participation in the August UHF was way up however. His was most likely due to Rovermania, sponsored by NLRS to our north. SMC members played a very large role in this event, with at least 10 logs of 191 total log entries coming from the SMC. Bob, K2DRH, won the national title in SOLP again for the fourth consecutive year. Barry, N2BJ, won the central division in the multi category, and placed 7th in the nation. Strong finishes also occurred by Jon, WO9S; Zack, W9SZ; Tim, K0PG; W9IIX; Gene, N9TF; John, K9IJ, John, K9JK (who also wrote the main contest article for QST); and George, AB0RX in Missouri. By September, things had returned to more typical conditions. By most accounts, the September VHF contest was slow, especially in rain-soaked areas. SMC fielded quite a lot of operators however, and results should be out shortly.

The next VHF contest event is the January VHF Sweeps. Most of the time, band conditions are horrible, and it is the club competition that makes this contest special. Activity levels are driven almost exclusively by club interest, so please shake some things up in your area, and get some local VHF activity going.

NA Sprint CW (Feb) Records (as of Feb 06)

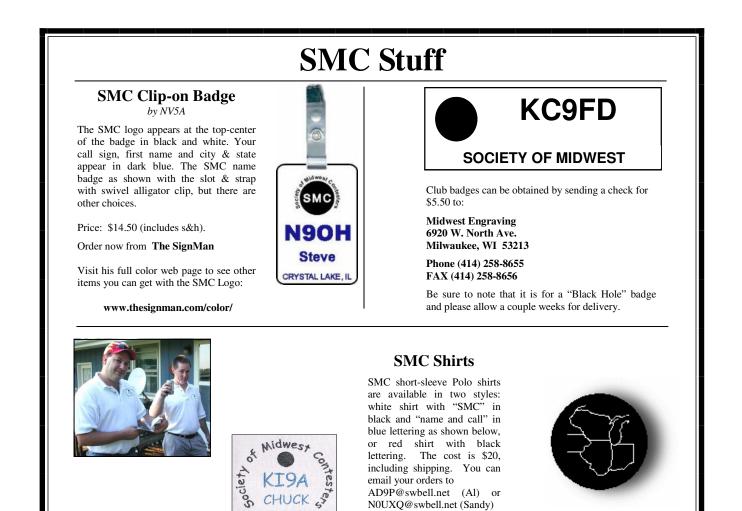
Call	Name	20	40	80	QSOs	Mult	Score	Team	Area	Yr	Тор 10
N9RV	Pat	137	144	89	370	52	19,240	DL	IN	02	2nd
N9RV	PAT	120	156	85	361	52	18,772	SMCCAT	IN	04	4th
N9RV	Pat	119	135	96	350	53	18,550	NCC	IN	00	6th
AG9A	CAT	110	164	78	352	52	18,304	SMCCAT1	IL	03	
N9RV	Pat	127	149	90	366	49	17,934	SMCCAT1	IN	03	
K9PG	Paul	99	166	76	341	52	17,732	SMCCAT1	IL	03	
K9NW	Mike	102	139	98	339	52	17,628	SMCCAT1	IN	03	
K9NW	Mike	126	130	93	349	50	17,450	MRRC	IN	02	
K9AA	Paul	112	147	73	332	52	17,450	DL	IL	02	
N9RV	Pat	117	147	90	354	48	16,992	IN	01	8th	
K9XD	Dave	105	135	85	325	52	16,900	DLCSCW	IL	00	
(AG9A))										
K9AA	Paul	94	139	69	302	55	16,610	DLCSCW	WI	00	
(K9PG	@ WE9V)										
AG9A	Mark	123	140	70	333	49	16,317	DL	IL	02	
AG9A	CAT	111	136	72	319	51	16,269	SMCCAT	IL	04	
K9NW	CAT	137	107	81	325	50	16,250	SMCCAT	IN	04	
W9RE	Mike	112	116	97	325	50	16,250	DL	IN	02	
K9XD	Dave	103	140	79	322	50	16,100		IL	01	
K9XD	Dave	99	126	94	319	50	15,950	DLCSCW	IL	99	10th
(W9QA	.)										
N9RV	PAT	106	146	105	357	44	15,708	SMC #1	IN	05	9th
K9NW	Mike	97	117	102	310	50	15,500	MRRC	IN	00	

Тор	o 10 Finish	ers		Top 10 SMC Teams					
Call	Place	Yr	Team	Yr	Score				
K4VX/0	8th	90	SMC CAT#1	03	160,864	2nd Plac			
(WO0G)			DLCSCW	00	151,852	2nd Plac			
K4VX/0	7th	96	DL	02	150,332	2nd Place			
K9XD	10th	99	SMC-CAT	04	124,758	4th Place			
(W9QA)			SMC #1	05	105,805	5th Place			
N9RV	6th	00	SMC	94	96,590	2nd Place			
N9RV	8th	01	DLCSCW	97	95,832	2nd Place			
N9RV	2nd	02	SMC #1	91	95,640	3rd Place			
N9RV	4th	04	DLCSCW	99	92,054	3rd Place			
N9RV	9th	05	DLCS	06	91,978	5th Place			
N9RV	6th	06							

NA Sprint SSB (Feb) Records (as of Feb 06)

Call	Name	20	40	80	QSOs	Mult	Score	Team	Area	Yr	Тор 10
K9XD	Dave	120	153	83	356	58	20,648	DLCT	IL	00	2nd
(K9PG)											
K9PG	Paul	124	158	86	368	56	20,608	DLCT	IL	02	1st
K9PG	Paul	98	162	151	411	46	18,906	DL	IL	04	1st
(@WB9Z)											
K9PG	Paul	117	154	86	357	51	18,207	DLCT	IL	03	1st
WE9V	Chad	109	142	81	332	53	17,596	DLCT	WI	00	9th
K9XD	Dave	104	152	106	362	48	17,376	DLCT	IL	01	3rd
W9RE	Mike	115	126	102	343	50	17,150	DLCT	IN	00	10th
W9RE	Mike	123	124	108	355	48	17,040	DLCT	IN	01	5th
KA9FOX	Scott	119	122	84	325	51	16,575	DLCT	WI	02	3rd
AG9A	Mark	103	141	71	315	52	16,380	DLCT	IL	00	
K9NW	Mike	107	124	81	312	52	16,224	DLCT	IN	00	
K9NW	Mike	111	129	91	331	48	15,888	DLCT	IN	01	9th
K4VX	Dave	130	130	74	334	47	15,698	UMRFFC	MO	92	8th
(AA9AK)											
N9RV	Pat	98	124	98	310	51	15,810	DLCT	IN	00	
W9RE	MIKE	100	118	131	349	44	15,356	DL	IN	04	5th
WO0G	Dave	120	133	64	317	49	15,533	SMC #2	MO	91	3rd
K9PG	Paul	63	147	125	335	46	15,410	SMC #1	IL	05	4th
(at WB9Z)											
KA9FOX	Scott	99	104	95	298	51	15,198	DLCT	WI	00	
KA9FOX	Scott	101	118	106	325	46	14,950	DLCT	WI	01	
AG9A	Mark	134	101	81	316	46	14,852	BK4Z	IL	92	

Top 1 () Finishei	S	Top 10	0 Finishe	rs		Тор 10	Top 10 SMC Teams
Call	Place	Yr	Call	Place	Yr	Team	-	•
WO0G	3rd	91	WE9V	9th	00	DLCT	DLCT 00	DLCT 00 166,372
AC9C	6th	91	W9RE	10th	00	DLCT	DLCT 01	DLCT 01 154,109
K4VX	8th	92	K9XD	3rd	01	DLCT	DLCT 02	DLCT 02 150,714
(AA9AK)			W9RE	5th	01	DL	DL 04	DL 04 136,860
AG9A	8th	94	K9NW	9th	01	DLCT	DLCT 03	DLCT 03 110,135
K9ZO	10th	94	K9PG	1st	02	SMC#1	SMC#1 05	SMC#1 05 100,204
AG9A	4th	95	KA9FOX	3rd	02	DLCT	DLCT 94	DLCT 94 96,998
KA9FOX	10th	95	K9PG	1st	04	SMC #1	SMC #1 91	SMC #1 91 92,675
K4VX	3rd	96	(@WB9Z)			SMC #1	SMC #1 01	SMC #1 01 76,499
AG9A	2nd	97	W9RE	5th	04	DLCT	DLCT 96	DLCT 96 71,992
K9XD	2nd	00	K9PG	4th	05			
(K9PG)			(@WB9Z)					



State QSO Parties

Illinois

October 22-23, 2006 http://www.w9awe.org/ILQP.html

Indiana

May 5-6, 2007 http://www.hdxcc.org/inqp/index.html

Wisconsin

March 11, 2007

http://www.warac.org/wqp/wqp.htm

Missouri

April 7-8, 2007

http://www.qsl.net/w0ma/mo_qso_party.htm

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Member/New Member Information/ Update Form Name: Call: Address:	 We need your input for the next 'Hole!! ⇒ Operating stories ⇒ Station construction ⇒ Operating accessories ⇒ Packet and computer hints ⇒ Product reviews ⇒ Plug your upcoming DXpedition ⇒ Your idea here
Phone: E-mail: Please send updates to: JON OGDEN, NA9D 905 SURREY LN ALGONQUIN IL 60102-2058	Please consider putting an article together today!



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