The SKCC Centurion

The official newsletter of the Straight key Century Club

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Solar Update

"I am surprised that if it's going to be big solar cycle 24, it's taking this long for sunspots to get started."
- David Hathaway, Ph.D., Solar Physics Team Leader, NASA Marshall Space Flight Center, Huntsville, Alabama

David Hathaway, Ph.D. is a Solar Physicist, Solar Physics Team Leader, NASA Marshall Space Flight Center in Huntsville, Alabama. Sunspot cycles of our sun are his passion.

In July 2008, NASA released the article, *"What's Wrong With The Sun? (Nothing)"* http://science.nasa.gov/headlines/y2008/11jul_solarcycleupdate.htm in which Dr. Hathaway tells us this behavior of our sun is normal. He goes on to tell us "The average solar cycle is 11 years, but the range is plus or minus more than one year. 66% of solar cycles have a period that goes from less than 10 years to slightly more than twelve years." Dr. Hathaway continues, "For cycle 23, we had minimum back in 1996 for cycle 23. And here we are in 2008, coming up on twelve years along for this cycle. But that's still within the normal range. Twelve years between minimums is still in normal behavior."

Some Background

Dr. Hathaway made a bet two years ago with a team of scientists at the High Altitude Observatory in the National Center for Atmospheric Research, known as NCAR, also located in Boulder, Colorado. The scientist Dr. Hathaway was betting against is Peter Gilman, Ph.D., Senior Scientist at HAO, who is teamed with Mausumi Dikpati, Ph.D., the creator of a computer model known as the Predictive Flux-transport Dynamo Model. Their theory is that sunspots are caused by a current of electrified gaseous plasma that circulates between the Sun's equator and its poles over a period of 17 to 22 years. That current, the scientist theorize, acts like a conveyor belt for sunspots from the equator to the poles.

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According to Drs. Dikpati and Gilman in March 2006, that their computer model was proving to be so accurate in its reproduction of the last eight solar cycles with 98% accuracy, the science team was going on the record to forecast that the next solar cycle 24 "will be 30 - 50% stronger than the last one and will begin as much as a year late."

This forecast caused Dr. Hathaway to bet Dr. Gilman that solar cycle 24 was going to come on quickly in 2006 because it was going to be so strong - perhaps the strongest solar cycle on record.

Fast Forward

August 2008, there are sill no signs of increased sunspot activity on the solar disk. On December 11, 2007 a patch of magnetism on the sun was declared by NASA to be the first official sunspot of the new Solar Cycle 24, thus beginning the anticipated "come on quickly" increase.

Where are the sunspots? Has cycle 24 really begun? Dr. Hataway says, ""It's started, but it has not overtaken 23 yet. We've seen new spots from cycle 24 with new magnetic activity that is definitely Cycle 24. It has started, but it has not produced enough sunspots to take off and take us out of minimum yet. So, we're still in minimum by almost any count".

Nearly a year after NASA officially announced the beginning of cycle 24 and we just experienced an entire month without a single sunspot. There was one day in August when a region developed a pre sunspot, but was not developed enough for it to receive an official sunspot number, and it faded away as rapidly at it formed. According to Dr. Hathaway this suggests that the next cycle 24 might be a small cycle. But the fact that it's taking this long to get started and that it's starting out so slowly are hallmark signs of a small solar cycle.

HAO's Dynamo Model

HAO has a model that matched the sun even before they even tried predicting with about a 98% accuracy. Then they tried prediction and showed they could get the last eight solar cycles better than any other technique. Given that, we project into the future and the next cycle is going to be big and it's going to start late.

Drs. Dikpati and Gilman are quite comfortable with what's happening. In fact, they suggested that it would be some time in late 2008 that we will end up coming out of minimum, so

it's all going according to their plan. It's just that their plan was a little surprising since if you look at the past 20 some sunspot cycles, usually big ones start early and the minimum is high in sunspot numbers because they start early.

However this one, minimum leading to solar cycle 24, is low. The number of sunspots are few and far between and it's taking a long time for this cycle to get started. Those are usually the hallmarks of a small cycle, not a big one.

Based on their Dynamo model, Drs. Dikpati and Gilman believe cycle 24 will be 50% bigger than cycle 23. That is big!. While this will be good for radio amateurs, it is a warning to power companies, communication companies, and companies who rely on satellite communications. Big solar cycles bring with them the strong possibilities of dangerous solar flares. So what they are predicting for cycle 24 is as big as the two previous cycles. So in the last cycle, the number of sunspots was 120 for its maximum. HAO is suggesting solar cycle 24 ought to be 160 or more sunspots. And that's about the same size as cycles 21 and 22 that were second and third largest on record.

Editors' Note: *Thank you to Linda Moulton Howe whose article "Still No Sunspot Action on the Sun" provided some of the information presented here.*

Did You Know

Every VHF or UHF FM transmitter can be fingerprinted? Yep each transmitter has it's own unique frequency and amplitude signature. With today's computer sound cards, real time spectral analysis is not only do-able, but also commonplace.

A Polished Navy Flameproof

DIY with NT9K

I started by taking the key apart. This is no easy chore either. You can take off all the parts you can remove first, then come the 3 pins to punch out. Two of the pins are visible on the ends of the axle, but the center pin is hidden under a small access screw between the gap and spring adjustment knobs on top of the main body of the key. That center pin needs to be punched from the top down. I broke 2 new punches doing it and felt lucky that I didn't damage the key. The center pin is the hardest part.

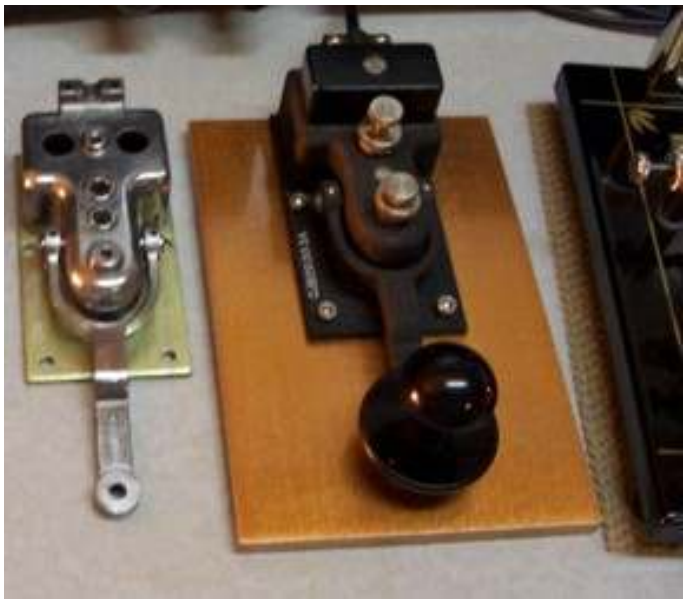
Once your key is apart, the lever, the main body housing and the bottom plate all got stripped. I used a spray type paint stripper called Klean Strip from Walmart. It was messy, but came off easy and cleaned up with soap and water. Zero harm to the metal with this stuff.

Now you should have something that looks like this:

The parts were cast and discolored from the heat. I was real unsure at this point how deep that discoloring was.

I went over it with a Dremel tool using a wire wheel first. Then I hand sanded with 400 grit paper and a green Scotch Brite pad. Then I polished it for about 30 hours using my Dremel tool, felt pads, cones and discs. I used Blue Magic metal polish, again from Walmart. That is good stuff and even works on plastic and corian. My key was old and the knob, skirt, and binding post covers were in bad shape, all scratched up and dirty. Now they look better than the newest FP I own.

So now I had this much done:



If you notice the base looks brass, but it isn't. It fooled me until I tried to polish it and it came off. The base had the black paint then this coat of yellow, I'm guessing a primer? This picture was about half way through the polishing process.

After I sanded off the yellow stuff, I polished the base plate. It went much quicker being flat, maybe 4 hours on that part? By

now I figured that I had enough time in it and decided to put it back together. It went back together pretty easy except for the spring. I finally got the little devil in the hole and put the rest of the parts back on it.

You have to be real careful putting the axle back in. The 3 holes for the pins are not drilled on center and it only goes in one way. I had sanded down the pins a tiny bit and didn't have any trouble putting them back in. The hardest part of assembly was the spring and orienting the axle.

The finished key is mounted on a 1/4 inch thick piece of copper with a clear coat. I'm very pleased with the way it turned out.

If anyone needs help or has questions, just ask. You can also use these photos and text anyway you like. Public domain!

73, Bill NT9K..

CW Operating Procedures Reprinted

Thanks to Frank Haas, KB4T SKCC # 981, for securing permission to reprint the CW Operating Procedures section from the ARRL Operating Manual, Copyrighted 1972. Frank has available the CW Operating Procedures in Full-Color PDF (11MB), Black & White PDF (3MB), and Microsoft Word (80Kb) formats.

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Get this while you can. It now has a prominent place in my shack, right next to my copy of my manual of the same name Copyrighted 1995.

Editor's Soapbox

Mark Saunders, KJ7BS SKCC 2240T

It is that time of year again, for me at least. The Southwestern ARRL convention is this weekend. This year it is being held in Mesa, AZ, only a few miles from where I live. I can hardly wait. I went to Pacificon last year and really had a blast. My work schedule kept me from Dayton this year and I will try to make Dayton for the first time next May.

So what's all the excitement about an ARRL convention? I understand it is much like Dayton, but smaller. I look forward to the presentations on topics like DX, Digital, Satellites, Emergency Communication, Traffic Nets, DXpeditions, and such. One of the sessions that caught my eye is "The Fun of CW by Scotty Cowling, WA2DFI. I can hardly wait to introduce myself to Scotty. I wonder if he has hears of SKCC?

These are some of the sessions I plan to attend High Altitude Ballooning, Choosing the right coax, Getting started in traffic handling, Amateur radio instructor training, and Vintage Radios. Here's one of special interest, Energizing amateur radio clubs.

I will have to make room in the schedule for the swap meet. I have lots of things I'm looking for this year; straight keys, bugs, key and bug parts, collectable tubes, antenna tuners, cores, ferrite beads, RF chokes, and QRP rigs.

I can't go to the convention and not go see my favorite vendor, Elecraft. I can hardly wait to chat with Eric and Wayne. This is my chance to see one of those nifty K3 radios. I won't be purchasing one anytime soon as a new HF transceiver is not XYL friendly, at least not at that price.

SKCC Contest Results

SKS Sprint

August 27, 2008—Congratulations to Russ, K0LUW who placed first with Jack, K4CNW placing second and Frank, KB4T place third. Well done gentlemen. A special note for Gary, K9MMS operating the club call K9SKC, his score was fourth highest in points, but the club call is not eligible to place. Nice showing by 60 participants.

WES Sprintathon

August 10, 2008—Congratulations to Russ, L0LUW who placed first with Jack, K4CNW placing second and TOM, K4ZGB placing third. Well done gentlemen. A special note for Bob, KC9GMN operating the club call K9SKC, his score was sixteenth highest in points, but the club call is not eligible to place. Nice showing by **92** participants.

New Members

4662, IZ0CUL, Mario, Orvieto, Italy
4663, WB7SSN, Wayne, Salt Lake City, UT
4664, W8BNZ, Benzie Amateur Radio Friends, Frankfort, MI
4665, KE7RGJ, Jay, Beavercreek, OR
4666, KC4GIA, Mark, Winchester, VA
4667, KI4CYV, Stacy, Missoula, MT
4668, K6IFF, Bill, Claremont, CA
4669, KC2LSD, Cody, Clifton, NJ
4670, WB6YEC, George, Lemmon Grove, CA
4671, N2SRQ, Charlie, Elmer, NJ
4672, K3RC, Bob, Stony Ridge, OH
4673, WD8EMA, Columbiana County EMA/ECOMM Group, Lisbon, OH
4674, KY0E, Milt, Denver, CO
4675, WW2NJ, Friends in Amateur Radio, Nutley, NJ
4676, W4MJT, Furman, Kernersville, NC
4677, M0GVQ, Andy, Tetbury Gloucestershire, England
4678, W8YBO, Oren, East Palestine, OH
4679, KE5KVE, Dave, Cordova, TN
4680, K7BIY, Doug, Portland, OR
4681, WB6RDO, Bud, Dana Point, CA
4682, WF7T, Brad, Nashville, TN
4683, N4ESS, Rich, Tampa, FL
4684, KE9DR, Bert, Benton, AR
4685, KB9MLE, David, Goshen, IN
4686, N2AKG, John, Erin, NY
4687, AA4SD, Kraig, Charleston, SC
4688, WA6P, Dean, Santa Monica, CA
4689, KC4YTF, Terry, Hampton, VA
4690, WW4DX, Alan, Cookeville, TN
4691, W4KDK, Ken, Jackson, TN
4692, KB8NBE, Art, Molena, GA
4693, KF4UOD, David, Marietta, GA
4694, K7IFG, Ken, Beaverceeek, OR
4695, K5PRT, Pete, Kempner, TX
4696, N2BR, Bobby, Cookeville, TN
4697, N9STL, Joyce, Belleville, IL
4698, K8ETR, Lynn, Pinckney, MI
4699, W1JLK, Bill, Sebring, FL
4700, AA6EZ, Richard, Simi Valley, CA
4701, N9RLO, John, Upland, IN
4702, KI4NGL, Roger, Raleigh, NC
4703, N3JUO, Dale, Mechanicsburg, PA
4704, N0BGT, Doug, Blaine, MN
4705, VK6ICT, Pieu, Perth, Australia
4706, KN8B, John, Plymouth, MI
4707, F5MPN, Stephane, Givet, France
4708, N8ZQ, Paul, Westerville, OH
4709, KS4RT, Barry, Ooltewah, TN
4710, W6AW, Bob, Sacramento, CA
4711, K9JHQ, Prime Amateur Radio Association, Belleville, IL
4712, AJ4GL, Gary, Roanoke, VA
4713, KC9NKG, Paul, Lynn, IN
4714, N3KCM, Jason, Wellsboro, PA
4715, AI4UN, Charles, Macon, GA
4716, KE5CKR, Matt, Leander, TX
4717, KB8OVK, Fred, Amherst, OH
4718, K8CEB, Greg, Brazoria, TX
4719, N0FKA, Kathi, Shoreview, MN
4720, KC9OGJ, Jim, Medford, WI
4721, KD8GMS, Garry, Detroit, MI
4722, VA3QF, Keith, Cambridge, Ontario, Canada
4723, KD4PFD, Ed, Summerville, SC

SKCC Awards

Centurion

233, W0CI, 2096C, Jerry, Urbandale, IA, 18 August, 2008
234, W7JI, 3064C, Lou, Arkansas City, KS, 18 August, 2008
235, WB2SPP, 1830C, John, Toms River, NJ, 18 August, 2008

Tribune

118, N0JL, 2079C, Jim, Chillicothe, IA, 9 August, 2008
119, N6EV, 3358C, Paul, El Camino Village, CA, 10 August, 2008
120, NG7Z, 802C, Paul, Bothell, WA, 14 August, 2008

Key Of The Month

G3SDW, Ken's key

Here is my favorite key the HI-MOUND HK-803 the best key that i have ever used. Just like a old pair of shoes that you just do not want to take off.

If you would like your key featured in Key of The Month, send your picture and a short description to kj7bs@cox.net.

Shack Of The Month


K9JP, Jeff's mobile shack.

Email pictures of your shack with a description to kj7bs@cox.net.

QSL Of The Month

Send images of your QSL card and see them posted for all members to see. Email images to kj7bs@cox.net

Member Products

Wooden Key Bases

George Osier, N2JNZ, makes beautiful key bases for your keys. I have made bases in Redheart, Chechen and Santo Mahogany in 5/8 and 1 inch thickness. I finish the bases in Minwax Wipe On Poly Gloss which gives a great shine but doesn't make the wood look like its covered in plastic." Samples of the bases are on the SKCC YAHOO group under "photos" and then to the N2JNZ Keys Folder. These are made from exotic woods and some are almost too pretty to drill holes into for mounting your key. Contact George gosier@twcny.rr.com for a list of exotic woods currently available. Key base pricing is $10 each plus $5 USPS Priority Mail shipping.

Her are two samples of his work. On the left is Redheart and on the right is Chechen.


These key bases are 8 1/2 inches long, 5 1/2 inches wide and 1/2 inch thick. These will make any key look good and will be a nice addition to your shack.

Gold SKCC Stickers

Mark Saunders, KJ7BS, is making Gold SKCC stickers available to all SKCC members. These stickers are 1 inch in diameter peel-and-stick gold foil stickers. The gold stickers come 63 to a sheet on an 8 1/2 x 11 inch page. The sticker has the SKCC key logo centered on the sticker and member numbers can be printed below the logo, including Centurion and Tribune designators. Pricing for the Gold SKCC stickers is very reasonable $0.60 per sheet of 63 plus shipping.

1 sheet (63) $1.19
2 sheets (126) $2.18
3 sheets (189) $2.78)
4 sheets (252) $3.38
5 sheets (315) $4.15
6 sheets (378) $4.75
7 sheets (441) $5.35
8 sheets (504) $6.12
9 sheets (567) $6.72
10 sheets (630) $7.32

(Prices include shipping)

Quantities over 10 sheets, please contact Mark for postage quote. Processing is 5-7 days excluding weekends. Orders and payments via PayPal to kj7bs@cox.net ,USPS money order or check to:

Mark Saunders
13226 N. 62nd Dr.
Glendale, AZ 85304

Please include the above pricing when ordering,

The SKCC Centurion

13226 N. 62nd Dr.
Glendale, AZ 85304
Phone: 623-606-1976
kj7bs@arrl.net

With SKCC every day is Straight Key Night!

The Straight Key Century Club is the fastest growing CW club focusing on manual generation of Morse code. Founded in January 2006, SKCC has grown to over 3700 members in calendar 2007. Members enjoy a very active email list server, SKCC forums, monthly sprints, and a monthly 24 hour operating event. Information about the Straight Key Century Club can be found at http://www.skccgroup.com .

Operating Frequencies

These are the suggested frequencies (+or - Khz) for SKCC members to congregate and look for other SKCC members. These are suggestions only, nobody owns any frequency. Be courteous and find a clear spot.

1.820 MHz	3.550 MHz	3.530 MHz
7.120 MHz	7.055 MHz	10.120 MHz
14.050 MHz	18.080 MHz	21.050 MHz
24.910 MHz	28.050 MHz	50.090 MHz
	144.070 MHz	

Operating Events

Monthly 24 Hour SKCC Operating Event: The first day of each month from 0000Z to 2359Z is designated as a monthly SKCC operating event. For SKCC members and non-SKCC members to work each other for credit. Contact with 100 SKCC members will qualify that person for a certificate of accomplishment. Visit http://www.skccgroup.com for more info or contact n6wk@n6wk.com.

SKCC Sprint: SKCC Sprints take place each month on the fourth Wednesday of the month from 0100z to 0300z. Rules for participation can be found at http://www.skccgroup.com/sprint/sks/.

SKCC Weekend Sprintathon: Every Second Sunday of each month beginning at 0000z UTC and ending 2359z UTC. This operating event is open to all licensed amateurs. Periodically themes will be announced for upcoming weekend sprints. See http://www.skccgroup.com/sprint/wes/ for more information and rules.

SKCC Member Resources

SKCC website—Everything you need to know about the Straight Key Century Club. Check back frequently as this site changes, http://www.skccgroup.com.

SKCC Yahoo Groups Email List—http://groups.yahoo.com/groups/skcc/. A moderated email list for the exchange of ideas about SKCC.

SKCC QSL Bureau—Dan Rhodes, KA3CTQ manages this free service for SKCC members. Send and receive QSL cards for QSOs between SKCC members via this service. To receive your QSL cards, you need to have SASE (self addresses stamped envelopes) on file with the SKCC QSL Bureau. Dan also says non-members can send you QSL cards through the SKCC Bureau. For more information see http://www.skccgroup.com/qsl.htm.

Award Tracker—Don Kemp, NN8B (SKCC 0036) maintains an SKCC Award Tracker spreadsheet to assist members in keeping track of their current standings with SKCC awards. Don posts updates to this valuable tool in the files section of the SKCC Yahoo Groups http://groups.yahoo.com/group/skcc/files/.

The SKCC Centurion—The official newsletter of the Straight Key Century Club published monthly. The SKCC Centurion is posted on the SKCC site, in the files section of the SKCC Yahoo Groups site, and distributed via email to your email inbox. To join The SKCC Centurion email list, send an email to The_SKCC_Centurion-subscribe@yahoogroups.com with Subscribe in the subject. (485 members subscribed to electronic delivery)

Spotting Cluster—Phil, AI4OF (SKCC # 600) has launched a spotting cluster and is making it available to SKCC members. Use this spotting cluster to announce your operations or to find other SKCC members to work. Point your Telnet client to skcc.matrixlist.com:7300. Login using your callsign.

SKCC Sked Page—Andy, K3UK (SKCC # 1325) maintains an interactive web page where SKCC members can arrange a meeting with other members to work towards SKCC awards or just to rag chew. Check it out at http://www.obriensweb.com/skccsked/skccsked.php.

SKCC Elmers—Jeff, K9JP (SKCC # 3008) manages the group of SKCC members serving as Elmers for the club. Anyone wishing assistance can visit the SKCC Elmers page for more information, http://www.skccgroup.com/elmers.htm .