The Big Smoothing Cheat

by Miles Mathis

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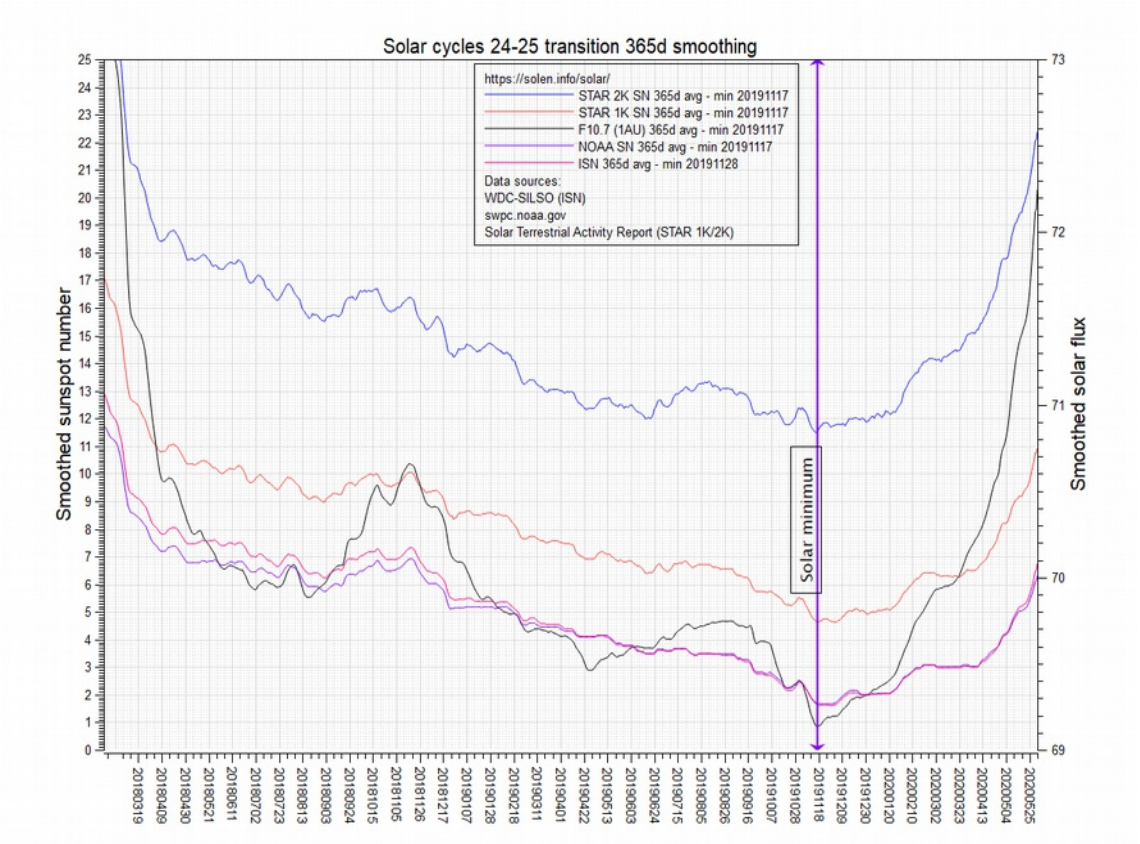
It looks like mainstream Solar scientists have been instructed to make it appear Solar Minimum occurred November 2019, by whatever means necessary. Though it didn't. Solen.info has been claiming this for many months, and they just published a graph supposedly showing it (below). Patrick Geryl and Jan Alvestad have published a paper at Researchgate claiming the same thing. Alvestad runs Solen. Why are they doing this? Only one reason: To answer my prediction from 2014 that minimum would occur in 2018, not 2019-2020. They have to bury that at all costs, even it means flagrantly pushing data.



[**Added August 9, 2024**: It just came to my attention five years later that Geryl of Solen.info published a paper at Researchgate in January of 2019 saying the opposite. That link goes to a gloss of his paper at SpaceWeather, which has apparently been up all this time. In it he argues minimum was not in late 2019, but in 2018. Which of course would confirm my prediction from 2014. So why are we just aware of his paper now? Has it really been up all this time or has it been hidden until now? I checked at the Wayback Machine and they have not spidered that page in the 5.5 years it has been up. Very suspicious. Given the timing, I would guess someone got to him, either ordering him or paying him to take down the first article and put up the now-notorious 13-month smooth on his website. It has been

on the front page of his site ever since, selling that fraud.]

But all scientists should know this is a big cheat, since it is a false minimum created by using a 365-day, or 13-month smooth. This should be really embarrassing for them, unless they believe that most people—even most scientists—won't know anything about statistical fudging like this. You normally don't want to smooth data on such a long timescale, *precisely* because it moves maxima and minima.

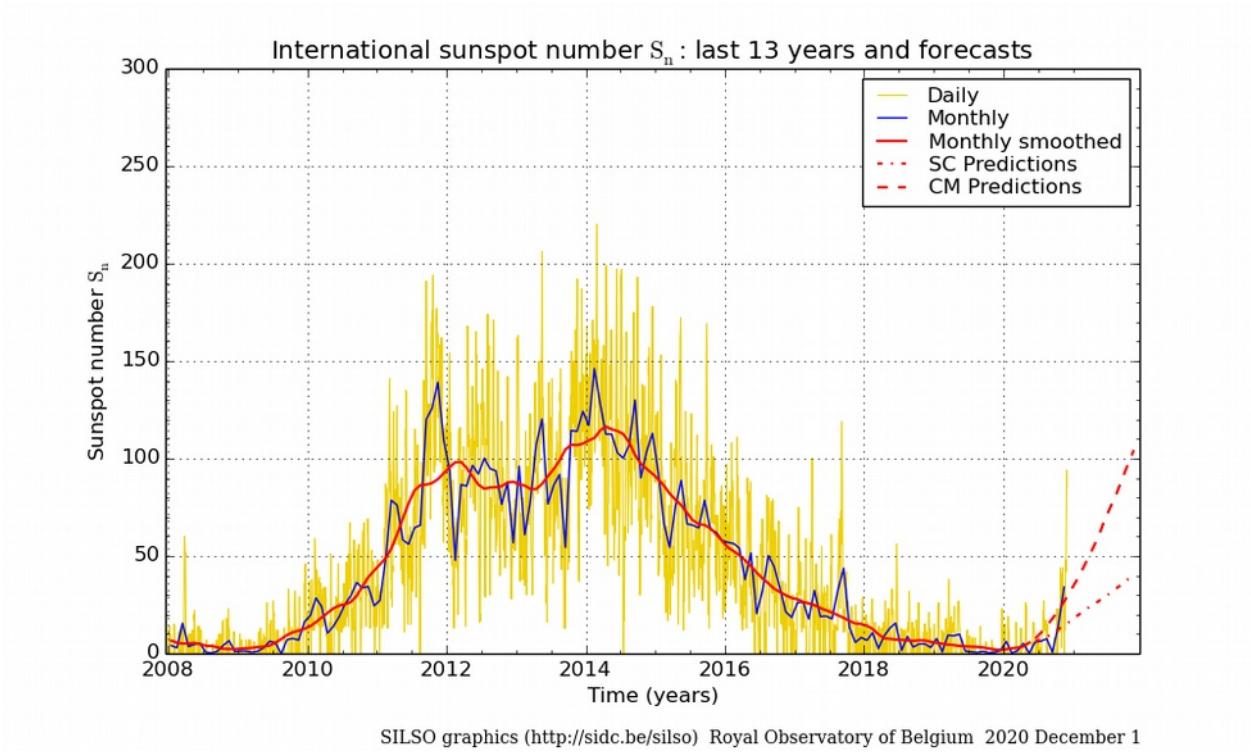
Well, just think about it. If you are graphing a falling curve on a 365-day smooth, then all the data in the past 182 days is higher and the data in the future is lower. Or, to say it another way, the data in the past is higher numbers, and the data in the future is lower numbers. So past data tends to numerically overwhelm future data, pushing any minimum of this sort toward the future, or forward. By the same token, if you are smoothing a rising line, you will push minima back.

What this means is that such a method is known to, and is *guaranteed* to, move a minimum forward by many months. How many months depends on how steep your fall is and how long your smooth is.

You will say, if there is more area under the graph backward than forward, shouldn't that shift the minimum back? No, because what a long smooth does to a falling line is raise the current number. Say you are calculating a number for May 1, 2018, and the daily number is 10. You take six months forward and six back, with bigger numbers back than forward. This will tend to raise your daily number, causing the line to run above it on the smoothed curve. That is what we will see here. So let us go ahead by six months, to November 1, 2018, when the daily number is 5. Smoothing will also raise that number, but less so, since the real fall in the line has decreased. Therefore, in the longrun, smoothing will tend to significantly *increase* the fall of the curve, since back numbers will be increased more than forward ones. This will over-indicate the curve and move the minimum. It can create a minimum where there isn't one. It can erase a real minimum. It can turn a peak into a trough. I will show you real examples of this below.

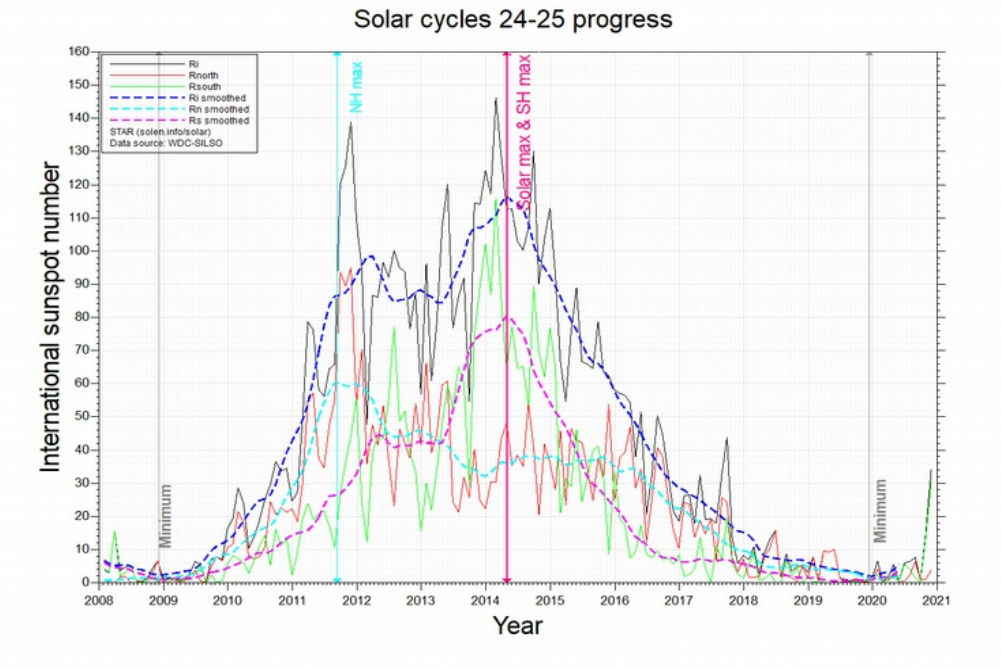
So when we see the purple NOAA line in the graph above falling from about 6 to about 3 in the 12 months before 11/2019, we may assume a large part of that fall is due to the long smoothing. In fact, since it is such a small decrease from 6 to 3, we may assume most or *all* of it is due to the smoothing, and the only way to find out is to go back to the real numbers. We will do that below.

The above graph proves that without further study, since as you can see we get a steep fall on all lines until at least April 2018. At that time the NOAA line hits about 8. But we know the *monthly* smoothed line had already hit those April levels six months earlier, in November of 2017. And in November 2017 the daily line was even lower, since even the monthly smoothing will raise the daily on a falling line.



As you see, the blue monthly line is at about 8 in late November 2017, but the 365-day line hits 8 about six months later (purple NOAA line, first graph). Proving that the longer your smooth is, the later your minimum is.

If you still don't see what I mean, compare this other graph also published at Solen.info.



We can practice on the south hemisphere green line, which has already bottomed out by January of

2017. The purple dotted line is the smoothing of that, and it doesn't hit the same level as the green already hit until almost *two years later*. That is because the smoothed line always goes through the tops of the peaks, never the bottoms. I just told you why that is: the line is falling, so back data is overwhelming forward data. On a falling line, the longer smooth will always run above a shorter smooth, and it will have more slope.

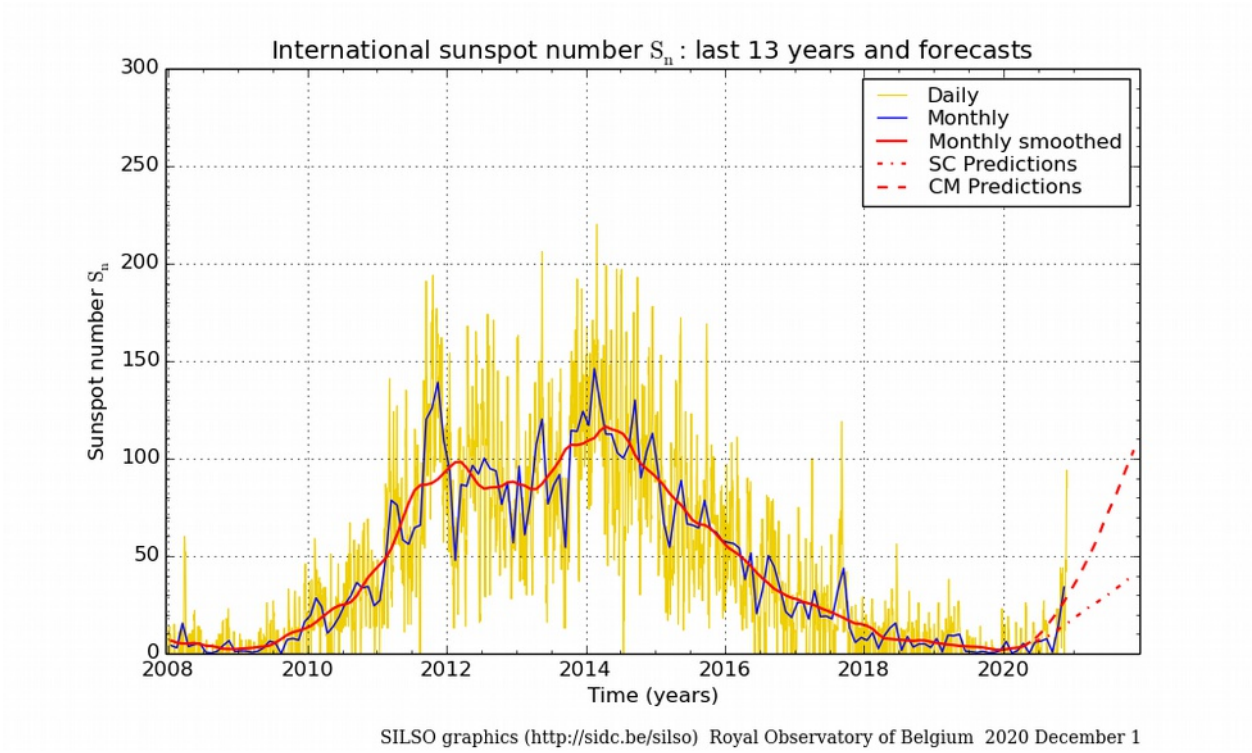
Here's another practice for you. Look at the peak of the purple dotted line above. Again, that is smoothing the green line, which begins falling sharply at February 1, 2014. So ask yourself why Solar Max is marked about three months later, in late April. The purple peak is well ahead of the green peak. That makes no sense on any sort of short-term and centered average, and you can tell that just by eyeballing the lines. The January peak is preceded by another huge peak a couple of months earlier, and forward it falls off sharply. You will say there is more of the mountain ahead of it than behind, pulling the average forward, but you can tell that isn't the case by eyeballing the space beneath the purple mountain. The purple mountain is averaging the green, and there is clearly far more mass in the mountain back than forward of the Max line. But even if there weren't, you can tell at a glance they have Max in the wrong place. Any sane person would match it to the highest peak. But my point in this context is that the smoothing has moved the peak forward, and it has done so because we are on a falling line.

And here's another one. Look at the dotted blue line, smoothing the black. It has again moved the first peak (of Dec. 2011) way ahead, making you face-palm again. Anyone can see the first peak was four months earlier, at that huge spike. You will say numbers are rising at that time, refuting me, but they aren't. They are falling for the entire next year, and especially in the six months after the spike, so that is what is causing the smoothed peak to shift forward.

If you still aren't getting it, let me ask you to *average* that first black peak yourself, over six months, by just using your eyes and your brain. It is about six months wide, so this should be very easy. But blow it up if you need to. It obviously has more mass back than forward at that width, so if anything the peak would shift back a tiny bit. Same with the second and higher peak. If we do a six-month average, it has more mass behind, so it should shift back a tiny bit. So the mainstream really has to mess this up somehow to get both those maxima to move forward by many months, don't they? Why would they do that? Lord knows. Just to stir your mind, I guess.

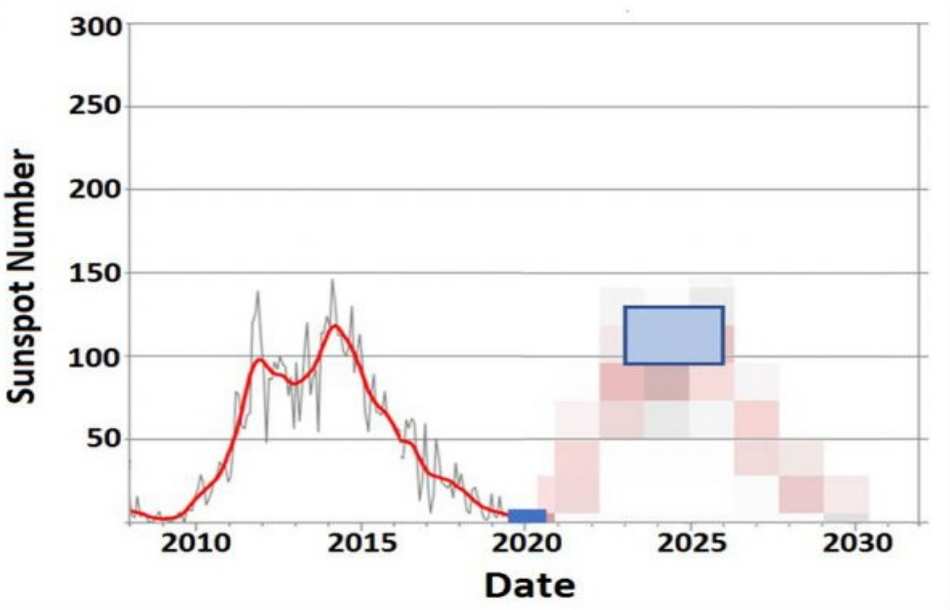
I have pointed this out many times before in previous papers. It is why I don't like even the 90-day smoothing or the monthly smoothing. It moves all peaks and troughs, and since those peaks and troughs define the graphs (they are what we are mainly seeking), all smoothing above a week is counter-productive. Any smoothed graph should be re-centered to match the peaks and troughs of weekly or monthly graphs.

[**Added Dec. 5**: I found another good example of how the 13-month smooth adds to the fake, using the graph above. Study this one again:



Go to September 2017-April 2018. See how the red line is running above the entire blue line for about six months? That really adds to the illusion that the graph is still on a downslide there, doesn't it? But a proper averaging of the blue line would be drawn far lower over those months, down below ten instead of up around 20. And if the red line were drawn properly, the illusion would disappear. We see the same thing in the second half of 2018, where the red line is again drawn too high, above most of the blue line. That shouldn't be happening. It should be down around 4 or 5, but is drawn at about 9. That also adds to the illusion of a falling line. Proving this graph has been massaged to indicate minimum at the end of 2019.

This graph is also massaged for the same purpose:



I finally thought to study that more closely, and I found the three last monthly peaks had been drawn way to high. Zoom in on the last peaks before the dark blue band, coming in June 2018, January 2019, and March 2019. Those are drawn higher than they should be, which obviously supports their claims of minimum starting later. Where would you say the June hump peaks? It looks to me like around 21. Except that the monthly average for June was 15.9, not 21. The next two peaks are even worse, since they look to be at about 18, but should be 8. That graph is a purposeful misrepresentation of data.]

Now let's look at some real numbers, instead of this fudged data. In that first graph, Solen has flux dipping down to 69.1 in November 2019, creating the lowest minimum on the graph. That is meant to draw your eye before and above everything else, seeming to prove the minimum. Unfortunately, if we go to the monthly numbers, the actual average for November was **70.2, with a real daily low of 69.2.** So how can the smooth be *below* both the monthly and daily numbers? Because the numbers were actually *rising* by that time. When the numbers are rising, the smooth is below the real data. All the numbers backward are lower and all the number forward are higher, so we are on a real rise. If we are on a real rise, then we can't be at a real minimum. That should go without saying. The average for December was 70.8. The average for October was 67.4. The average for September was 67.9, and the average for January was 71.8, giving us a five month average of 69.94. The number for February was 71 and for August it was 67. For March it was 70.2 and for July it was 67.1. Giving us a 9-month average of 69.3. So you see how they really need to pull in distant numbers to get that spike down and create a false minimum.

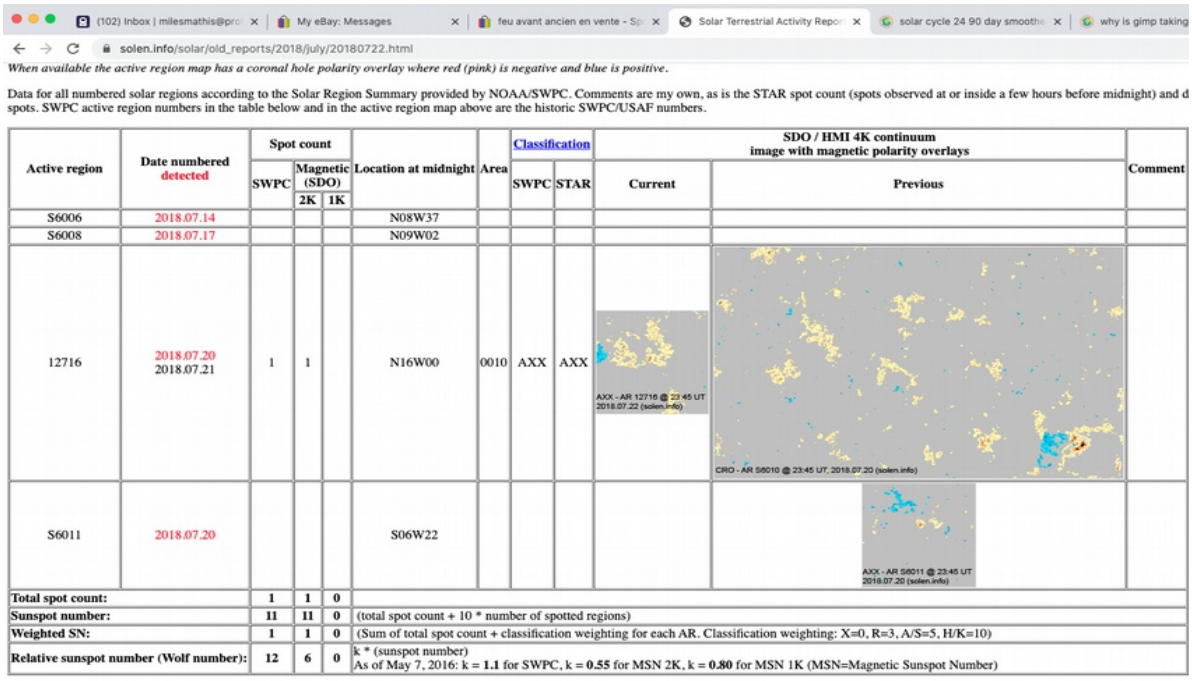
We see a similar reversal in May 2019, when there was a high in the real numbers. The number for May went up to 71.3. It was even higher in April, at 72.4. But check the Solen smooth above (first graph), where we see a dip in April/May instead of a small peak. When the real numbers are going up, the smooth is going *down*. This tells us madness is afoot, and confirms my previous analysis. They have made a trough into a peak, by purposefully fudging data.

From the actual charts, we find the 3-month average at the end of 2018 was the same as the 3-month average at the end of 2019: 69.5. Can you tell that from the first graph above? No, because in that graph, they have managed to graph those months in 2018 on a *rise* up to 70.64. The real numbers are creating a trough, but the smoothed numbers are again creating a peak. Amazing. But a 90-day graph

would show the same minimum at November 2018 and November 2019.

The real candidate for Solar Minimum based on flux is August 2019. Fortunately for me, Solar Minimum is not defined by flux at the Earth, since the Earth only captures a tiny sliver of Solar activity. We don't know what flux is everywhere else, either on the far side of the Sun or on most directions on this side. I have followed flux in some papers because it is very important as a matter of health here on Earth, but Solar Minimum is defined by sunspots. We only see about half the Sun at any one time, but because the Sun is spinning, no part of him is dark to us over time. Which is why spots are a better indicator of the local Solar Cycle than flux.

The best candidate for Solar Minimum is July 2018, in which only one sunspot was reported the entire month (July 21). That is .03/day. Solen claims that NOAA reported 11 on that day, but if we go to the daily charts, we find they reported only 1. And if we check the actual photos, we find even this one was faked.



Look at the current photo, not the previous. The previous one might have been counted for the previous day, *but it wasn't*. In the current photo, there is no black spot, only a tiny red magnetic spot. So the SWPC count for that day should be zero, which takes the entire month to zero.

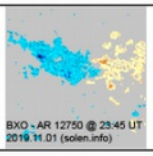
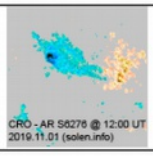
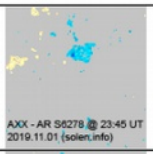
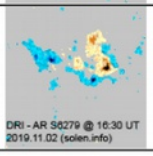
So let's compare that to the weakest months in 2019. In August 2019 there were three reported by NOAA/SWPC, giving us .97/day. September 2019 had four. October 2019 had two. November had four. Strangely, all the sunpots in September, October, and November came on the 1st and 2nd of those months. That's suspicious, and leads us to look more closely at those daily reports. If you check November 1, for instance, you find SWPC ignoring 4 obvious spots in S6279.

solen.info/solar/old_reports/2019/november/20191102.html

(Click on image for 2K resolution). 4K resolution. Compare to the previous day's image. 0.5K image

When available the active region map has a coronal hole polarity overlay where red (pink) is negative and blue is positive.

Data for all numbered solar regions according to the Solar Region Summary provided by NOAA/SWPC. Comments are my own, as is the STAR spot count (spots observed at or inside a few numbers in the table below and in the active region map above are the historic SWPC/USAF numbers.

Active region	SWPC date numbered STAR detected	Spot count			Location at midnight	Area	Classification		SDO / HMI 4K continuum image with magnetic polarity overlays		Comment
		SWPC	Magnetic (SDO)				SWPC	STAR	Current	Previous	
			2K	1K							
12750	2019.10.31 2019.11.01	1	5	3	S28E25	0010	AXX	BXO			cycle 25
S6277	2019.10.31				S30W18						cycle 25
S6278	2019.11.01		1	1	S13W23	0002		AXX			
S6279	2019.11.02				N07W23 @ 16:30	0030		DRI			
Total spot count:		**1**	**6**	**4**							
Sunspot number:		**11**	**26**	**24**	(total spot count + 10 * number of spotted regions)						
Weighted SN:		**1**	**6**	**4**	(Sum of total spot count + classification weighting for each AR. Classification weighting: X=0, R=3, A/S=5, H/K=10)						
Relative sunspot number (Wolf number):		**12**	**14**	**19**	k * (sunspot number) As of May 7, 2016: k = **1.1** for SWPC, k = **0.55** for MSN 2K, k = **0.80** for MSN 1K (MSN=Magnetic Sunspot Number)						

Unbelievable! But predictable, since we now know they were instructed to find November 2019 as the Solar Minimum candidate. I guess their eyes just stopped working on November 1. I also see a spot on November 7 tagged as magnetic, but it looks like a black spot to me. Same for November 13. Which reminds us that if NOAA or SWPC wishes to ignore a spot, they can just paint it blue and tag it as magnetic. But these spots on the 7th and 13th are black, not blue. On the 27th we get some weird data, since five extra regions are listed, but they aren't drawn on the map, either the big one or the insets. No other data is given for them, so it looks like data is being hidden. A similar thing happens on the 28th, where four regions are missing, and both the large map and the insets are gone. I am writing this Dec. 4, 2020 just after midnight. We also find three missing regions on the 29th, listed on the chart but not drawn on the large map.

That takes our raw number for November up to 10, which is ten more than July 2018. Which led me to check surrounding months. SWPC missed another spot on Oct. 31, 2019, in S6276. They seem to have a blind spot in that area and may need to look into it. That takes October up to three, three more than July 2018. Their chart on September 8 lists a spot as "Cycle 25", so I guess they need to jettison that evidence. They missed a definite spot on September 16. It is clearly black, not blue, and is larger than the normal blue magnetic spot.

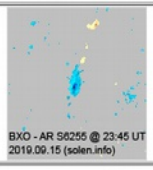
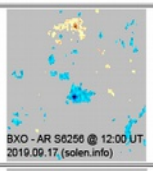
solen.info/solar/old_reports/2019/september/20190917.html

Image sources: SDO (HMIIF, HMIB, AIA 211) at 23:45 UT on September 16, 2019

(Click on image for 2K resolution). 4K resolution. Compare to the previous day's image. 0.5K image

When available the active region map has a coronal hole polarity overlay where red (pink) is negative and blue is positive.

Data for all numbered solar regions according to the Solar Region Summary provided by NOAA/SWPC. Comments are my own, as is the STAR spot count (spots observed at or inside a spots. SWPC active region numbers in the table below and in the active region map above are the historic SWPC/USAF numbers.

Active region	SWPC date numbered STAR detected	Spot count			Location at midnight	Area	Classification		SDO / HMI 4K continuum image with magnetic polarity overlays		Comment
		SWPC	Magnetic (SDO)				SWPC	STAR	Current	Previous	
			2K	1K							
S6253	2019.09.13				N34W28						cycle 25
S6254	2019.09.13				N09W32						
S6255	2019.09.15				N17E36						
S6256	2019.09.17				S04E05 @ 12:00 UT	0006		BXO			
nnnn	(2019.09.17)				S48W02 @ 12:00 UT	0000		AXX			
Total spot count:		**0**	**0**	**0**							
Sunspot number:		**0**	**0**	**0**	(total spot count + 10 * number of spotted regions)						
Weighted SN:		**0**	**0**	**0**	(Sum of total spot count + classification weighting for each AR. Classification weighting: X=0, R=3, A/S=5, H/K=10)						
Relative sunspot number (Wolf number):		**0**	**0**	**0**	k * (sunspot number) As of May 7, 2016: k = **1.1** for SWPC, k = **0.55** for MSN 2K, k = **0.80** for MSN 1K (MSN=Magnetic Sunspot Number)						

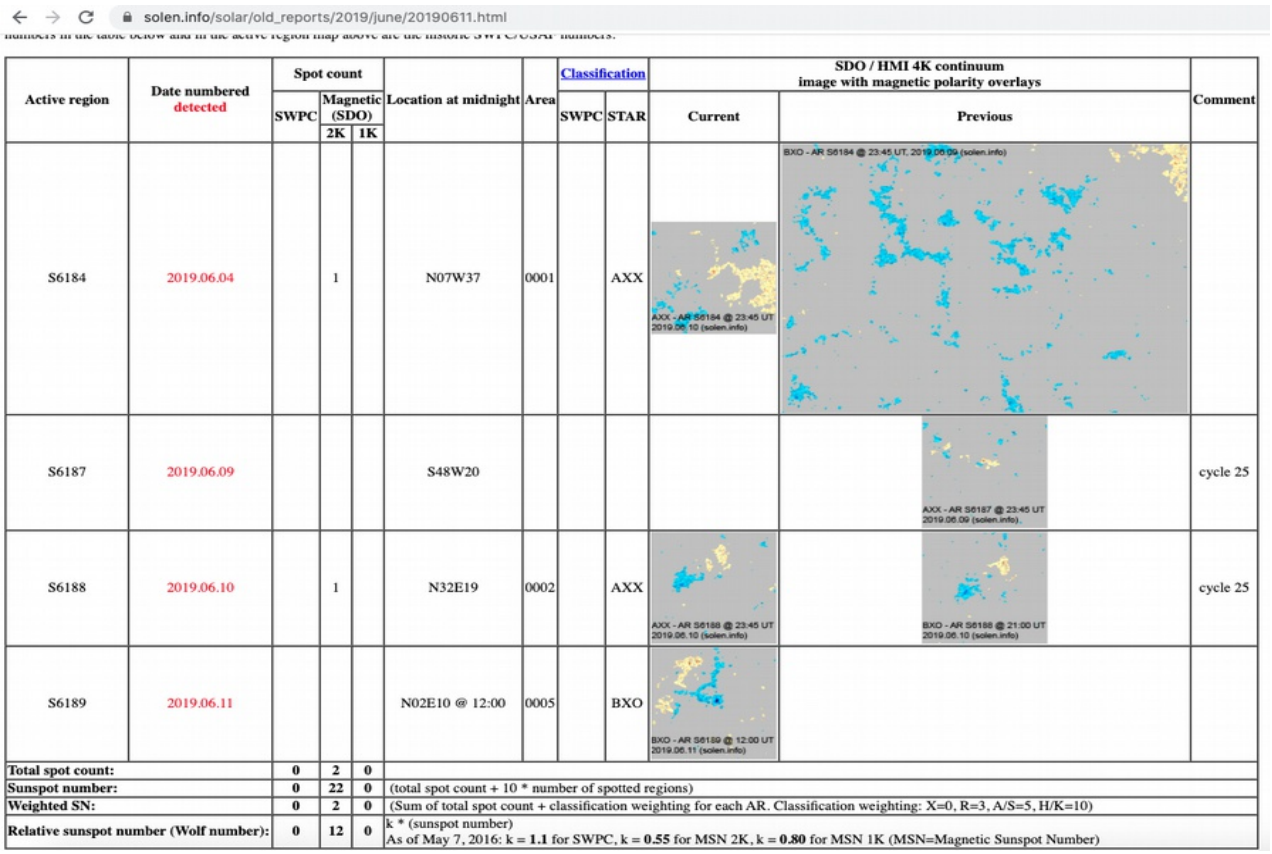
They miss a similar one on the 24th. That takes September up to six, six more than July 2018. These misses in months near November 2019 are very important, since they are smoothed into the November number, making sure it stays low.

But let's return to July 2018, and see how long the spot drought then lasted. The end of June gives us four more zeroes, making 35. However, let's check the daily report on 6/26. Sure enough, we find they faked the spots on that day. The previous day shows two definite spots, but the current inset shows only the two red magnetic (2K) spots. They are trying to list the same spots as magnetic and SWPC. They shouldn't do that. And SWPC should be consistent. If they are counting those two tiny spots, they should be counting the larger ones I have pointed out above. So, that gives us one more, taking us to 36. Then we check forward in August. They have done the same thing on Aug 1 and 2, choosing to count one of the three magnetic spots as SWPC, though if there is black at the center of those, it looks negligible. Without those, we have thirteen more to add to our streak, taking us to 48. Which takes us to Aug. 14. This is straight up misreported, since the larger chart lists 12, meaning 1 for SWPC, but when we look at the daily chart, SWPC is reporting zero. That gives us one more, taking us up to 49 straight days without a definite sunspot.

Needless to say, we find nothing like that in 2019. The closest is 33 in February and surrounding days, and 36 in May/June. However, let's check those daily reports as well. Again, they miss a spot on

February 13, and possibly three. We also seem to have some hanky-panky going on March 3-4, since on March 4 they list a previous inset that appears to show a possible spot, but if we go to the previous day, March 3, the inset isn't there. That's suspicious. Also notice that they are giving spots in March 2019 to cycle 25, which they are now claiming won't start until November 2019. So, more housecleaning for them.

Anyway, that blows the streak in February 2019, taking it down to 16. So let's check May/June 2019. Sure enough, they miss another spot on the 28/29, blowing that streak as well. That strips 13 spotless days from the streak, taking us down to 23. And they miss a very obvious on the 10th:



Active region	Date numbered detected	Spot count SWPC	Spot count Magnetic (SDO) 2K	Spot count Magnetic (SDO) 1K	Location at midnight	Area	Classification SWPC	Classification STAR	SDO / HMI 4K continuum image with magnetic polarity overlays Current	SDO / HMI 4K continuum image with magnetic polarity overlays Previous	Comment
S6184	2019.06.04		1		N07W37	0001		AXX	AXX - AR S6184 @ 23:45 UT 2019.06.10 (solen.info)	BXO - AR S6184 @ 23:45 UT, 2019.06.09 (solen.info)	
S6187	2019.06.09				S48W20					AXX - AR S6187 @ 23:45 UT 2019.06.09 (solen.info)	cycle 25
S6188	2019.06.10		1		N32E19	0002		AXX	AXX - AR S6188 @ 23:45 UT 2019.06.10 (solen.info)	BXO - AR S6188 @ 21:00 UT 2019.06.10 (solen.info)	cycle 25
S6189	2019.06.11				N02E10 @ 12:00	0005		BXO	BXO - AR S6189 @ 12:00 UT 2019.06.11 (solen.info)		
Total spot count:		0	2	0							
Sunspot number:		0	22	0	(total spot count + 10 * number of spotted regions)						
Weighted SN:		0	2	0	(Sum of total spot count + classification weighting for each AR. Classification weighting: X=0, R=3, A/S=5, H/K=10)						
Relative sunspot number (Wolf number):		0	12	0	k * (sunspot number) As of May 7, 2016: k = **1.1** for SWPC, k = **0.55** for MSN 2K, k = **0.80** for MSN 1K (MSN=Magnetic Sunspot Number)						

Which unfortunately takes their streak down to 13.

Funny, they never missed spots like that last one in 2018, so I wonder why they lost their eyesight in 2019?

March 2018 is another candidate for Solar Minimum, and we find faking there as well. SWPC claims to have seen sunspots on the 1st and 2nd, but checking the insets, we find no sunspot on the 2nd and probably no spot on the 1st either. The spots are tiny on the 1st, and I either see zero or five. On the 15th, they claim another one, but it looks like a blue magnetic spot to me, not what they normally tag as a real NOAA spot. There is no consistency in these claims. I confirm 3 of the 5 spots on the 17th, but the ones on the 18th are iffy. So by my reckoning, March 2018 has only three small spots the entire month, and an average flux of 67.6, putting it way below November or December 2019. A flux that low that early should have signaled something to the mainstream, but they failed to get the message. On 3/8 the flux fell to 66.6, very near a cycle low. Flux doesn't determine minimum, since as we have seen it lags behind sunspot minimum. But a bottoming-out flux does indicate we are already *past* spot

minimum. I have shown sunspot minimum was probably in July 2018, while flux minimum was in August 2019. Flux lags behind by a year for a reason: flux is generated by Solar output, not just by galactic and system positions. So for flux to change, the Sun first has to respond to new input, and that takes time. Charge returning from the planets causes huge changes in the Sun, and those changes are actual shifts of matter and plasma and charge. Of course spots are also an effect of these physical changes, but they occur much faster since they don't require the entire Sun's response. The spots, being on the surface, are more immediate reactions to the returning charge from the planets, like an incoming battery circuit. But after that initial response, the Sun still has to shift to the new voltage, to create a new output. Flux is part of that output.

So, we came in just suspecting they were pushing and faking data, but now we have proof. When I started writing, I could see they were pushing peaks and troughs with these ridiculous 13-month smooths, but I had no idea I would catch them misreporting, changing, and hiding data in such flagrant ways. It proves one again that these mainstream people are shameless. And not too bright. Did they really think I wouldn't catch them at it? They must have just skimmed my previous papers, if they thought they could slip something like this by me. I keep thinking they will realize they can't win, but I guess they are about as good at reading the signs as they are at reading data.

And now for the punchline. I found Alvestad's name at Solen, but I didn't know who Patrick Geryl is, so I looked him up. He wrote *The Orion Prophecy*, the thesis of which was that a gigantic solar flare would destroy the Earth in 2012. According to my best research, that didn't happen. So we have him pegged. Why is Alvestad working with this guy? You will say that means these guys aren't mainstream, negating my entire analysis above, except that NASA and the mainstream **agree** with them. In September 2020 NASA announced that cycle 25 started in December of 2019, just a few weeks *after* Geryl and Alvestad claimed it did. Since the flux for that month is listed at almost 71, that doesn't make much sense. Both spots and flux were on a slow curve *up* by then, so, as I already proved above, that month can't be a minimum. The only thing to recommend such late dates is the 13-month smooth I have destroyed above, which is exactly what NASA and NOAA's "international group of experts" used to come to their conclusion. So it appears that NASA is quite satisfied to have Geryl do their talking for them. I suppose they assume you won't look him up. Or maybe they figure you won't be surprised to find NASA on the same page as a guy who wrote *The Orion Prophecy*, selling the same putrid kool-aid.

In fact, we find more fudged data in early 2020, to help sell that December 2019 tag. See February 20/21, 2020, where we find a previous inset indicating a possible spot, but when we go back to the previous day for the current inset, we find it missing. We find SWPC missing another spot on March 17. I guess they were drinking too much of the green brew. They also may have missed one or more on 3/30. They may have missed one on 4/11 and on 4/24. And so on. Those later fudges play into the December number, since remember they are on a long smooth here.

Anyway, at this page, we are informed that NASA is working with FEMA on the National Space Weather and Strategy and Action Plan, to protect us from space weather hazards. Which reminds us that Geryl is not the only one using doom and fear to sell things. We remember that Michio Kaku, one of the mainstream's top hired spokesmen, was also selling fear and caca in 2012, so that NASA and other government agencies could drink from the treasury in the usual ways. Like Geryl, he was also selling flares as a huge danger, one that required spending billions of dollars in mitigation and preparation. He was only a little less outlandish than Geryl, but neither of their predictions played out at all. Also as usual. But billions *were* stolen from the treasury, and that money went to the usual people. This leads me to suspect that Geryl is actually a front for NASA, spreading fear in ways they

can't openly spread it. NASA can't really predict the Earth will be destroyed in a given year—since that wouldn't look good on their pristine record, gaffaw—but they are quite happy when someone like Geryl does it for them.

And here's a bonus on the way out, from that NASA page:

> How quickly solar activity rises is an indicator on how strong the solar cycle will be," said Doug Biesecker, Ph.D., panel co-chair and a solar physicist at NOAA's Space Weather Prediction Center. "Although we've seen a steady increase in sunspot activity this year, it is slow."

That was from September, remember. However, in the past three weeks we have seen a spectacular rise in sunspots and flux. Which Biesecker just told you is an indicator of the current cycle. So Biesecker and his buddies like Geryl and Alvestad must be sweating bullets right now. Their prediction that this cycle would be weak is already being exploded before their eyes. Also like a knife to the heart for them is the fact that this quick rise coincides with the Jupiter-Saturn conjunction. Which will send you back to our previous paper.