

## 2010 Sea Ice Outlook June Report based on May Data

Charles Wilson

1. September 2010 Ice Extent Projection = 1 million Square km

(essentially: an Open Arctic, save the 30 foot thick land-fast Ice of, & near, Greenland)

2. This comes from a simple Statistical comparison - - Ice VOLUME CHANGE times the relative strength of the years' El Nino (warm spot in the Pacific).

2007 was a Vast change & so I IGNORE the small Progressive Changes for simplicity, & look at the really this year's strong El Nino (4<sup>th</sup> strongest in 60 years).

6000 cubic km (ICESAT figure for September 2007)

- 4000 cubic Km (ICESAT's number for 2007's reduction from Previous year Volume)

x (times) El Nino rating = 1.8 (2009-2010 El Nino) / (divided by) 1.1 (2006-2007's peak ONI rating)

= - 545 cubic km (a negative number)

= ZERO ... further, it will melt off EARLY. If I used the 2009 PIOMAS estimate of 5800 km<sup>3</sup>, it would be negative 745.

3. Discussion:

2007's El Nino did 3 things to melt off 40% of Ice Volume relative to 2006:

a. 2007 was Hot ... 2010 was MORE so: December was the highest monthly anomaly ever, Feb was #4, March #10, April #7 (& the warmest April ever)

(these are figures from the Satellite (uah) Lower Troposphere breakout for N. Polar OCEAN)

b. Winds pushed Ice ... though this will be critical mainly in July, the 2 years: 2007 & 2010, are unique in breaking the Nares Ice Dam – and 2010 broke it MUCH worse.

c. Cloudiness was 16% Less than Norm – If I am wrong, it will be here.

- - -

Beyond the Projection:

4. Effects of a 1-year Melt-off are Dire: Possible Ocean Current Shutdown.

> IF ... 2007's cloudlessness (3c above) was from it's El Nino AND is Proportional &

> IF ... our currents today are close enough to those 11,000 years ago for Ocean Current Shutdown, & 300 mph winds (as occurred then) BUT:

These "IF" s cut the probability to 1-in-4

or perhaps 1-in-8, as:

> SHUTDOWN was feared when salinity flipped around 2000. But currents move for Both salinity & temperature reasons (an Open Arctic, EARLY, means the 24-hour-a-day sun at the Pole will run temps well above the area South of it, thus an EARLY melt = the “warmth - conveying” reason for the current “conveyor” reverses)

- - - I suspect it needs BOTH salinity & temperature to be reversed, for the current to reverse:

= Destruction of nearly ALL aboveground structures North of 10 Degrees Latitude = 99% Deaths in USA, Europe, etc. within 2 years.

... In the Worst Case:

Immediate Action can create Clouds with: Airplane contrails, seawater mists, or high-altitude sulfur (e.g. heightening Smokestacks at Norilsk).

But it needs to be done in the next few Weeks - - - months before we can be sure an Early Melt WILL happen.

5. Is it Happening ?:

The Piomas model at the Polar Science Center is now 1200 km<sup>3</sup> BELOW 2007's anomaly, and FALLING FAST. It actually ran off the bottom of the Chart, leading to a 20-day gap in Updates (people noticed, too).

Yet it often jumps up & down -- a month ago it was well above the worst 2007 anomaly.

PIOMAS did match ICESAT's numbers almost perfectly except once -- in late 2007. So, IF the Central Arctic Ocean melts, PIOMAS will understate the loss (as in 2007) as PIOMAS sums up airplane, ship & shore data for thickness - - and while satellites are overhead, who risks flying so far from shore ? E.g. Icebridge has stopped except over Greenland. Alas, since Cryosat 2 launched, instead of providing more complete coverage than PIOMAS, its' Science team has embargoed the “Quick Look” feature, wishing to preserve “Scientific Priority of Publication” until they publish

- - in about 18 months. So what good is a “Quick Look” if it is SECRET for over a year?

ONI ratings are at:

[http://www.cpc.noaa.gov/products/analysis\\_monitoring/ensostuff/ensoyears.shtml](http://www.cpc.noaa.gov/products/analysis_monitoring/ensostuff/ensoyears.shtml) Also see: uah Arctic Ocean air temp (last 5 months' anomaly: + 3.2 December, 1.6, 2.92, 2.53, 2.68 degrees C.) <http://vortex.nsstc.uah.edu/data/msu/t2lt/uahncdc.lt>