

Xingren Wu, NOAA; Robert Grumbine, NOAA; Wanqiu Wang, NOAA  
Estimate: 4.8 million km<sup>2</sup> with standard error of 0.2 million km<sup>2</sup>

**Basis:**

We ran the CFS with 20 December 2010 initial conditions and 10 Initial conditions from January 2011. These were modified from the CFS v2.0 initial conditions by thinning the ice pack by 60 cm -- the thickness which we used as a cutoff in making our 2010 SIO estimates. If this thinning would have eliminated ice from areas observed to have sea ice, a minimum thickness of 20 cm was left in place.

In making our estimate for September 2011, directly using the model's extent again seemed excessive (see also Wang's estimate). But the initial condition change does appear to have improved the model's behavior, and a critical thickness of 30 cm was used this year against last year's 60 cm.