

THE LORD MONCKTON FOUNDATION

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Global Warming Prediction Index 🌸 February 2014

Projected vs. measured temperature trends, Jan 2005 to Jan 2014 (109 months)

IPCC projection

Satellite trend

Over-prediction

+0.12 C°

-0.01 C°

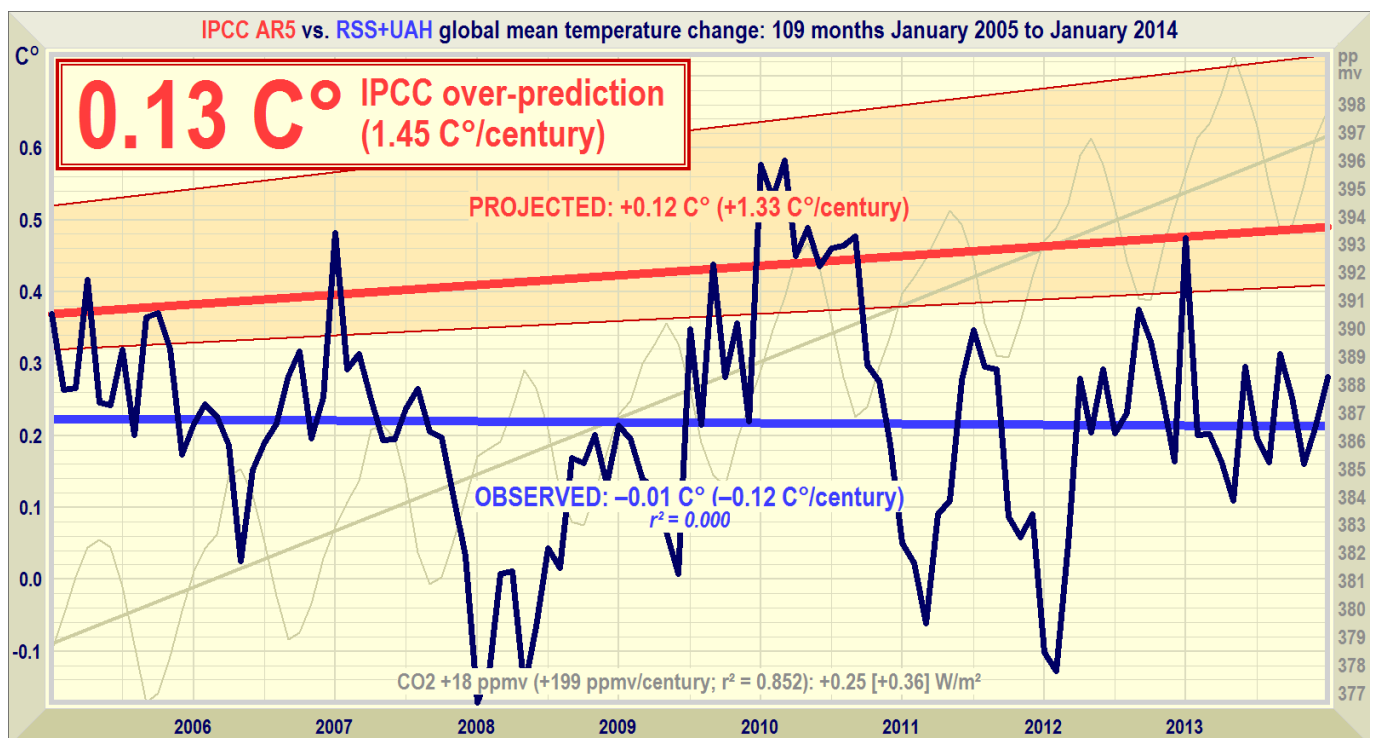
0.13 C°

(+1.33 C°/century)

(-0.12 C°/century)

(1.49 C°/century)

This month's Index shows IPCC models have over-predicted global warming by 0.13 C° over the 109 months since January 2005 compared with global temperature change measured by the RSS and UAH satellites. The monthly index number is the amount by which the IPCC's central projection has overshoot or undershot the observed temperature trend since January 2005.



This month's graph shows 42 models' projections of global warming since January 2005 in the IPCC's *Fifth Assessment Report* as an orange region. The IPCC's central projection, the thick red line, is that the world should have warmed by 0.12 C° over the period (equivalent to 1.33 C°/century). The 18 ppmv (199 ppmv/century) rise in the trend on the gray dogtooth CO₂ concentration curve, plus other ghg increases, should have caused 0.1 C° warming, with the remaining 0.1 C° from previous CO₂ increases. Yet the mean of the RSS and UAH satellite measurements, in dark blue over the bright blue trend-line, shows global cooling of 0.01 C° (-0.12 C°/century). The models have thus over-predicted warming by 0.13 C° (1.45 C°/century).

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Monthly results from January 2011 to date compared with January 2005

| Number of months | January 2005 to | CO ₂ conc. μatm | Equiv. per century μatm | Radiative forcing W m^{-2} | Predicted warming $^{\circ}\text{C}$ | Equiv. per century $^{\circ}\text{C}$ | Observed warming $^{\circ}\text{C}$ | Equiv. per century $^{\circ}\text{C}$ | Models' overshoot $^{\circ}\text{C}$ | Equiv. per century $^{\circ}\text{C}$ |
|------------------|-----------------|---------------------------------------|------------------------------------|-------------------------------------|--------------------------------------|---------------------------------------|-------------------------------------|---------------------------------------|--------------------------------------|---------------------------------------|
| 1 | Jan 2005 | 378 | | 0.00 | 0.00 | | 0.00 | | 0.00 | |
| 73 | Jan 2011 | +11 | +183 | 0.15 | +0.08 | +1.33 | +0.07 | +1.08 | +0.02 | +0.25 |
| 74 | Feb 2011 | +11 | +185 | 0.16 | +0.08 | +1.33 | +0.05 | +0.77 | +0.03 | +0.56 |
| 75 | Mar 2011 | +12 | +187 | 0.16 | +0.08 | +1.33 | +0.02 | +0.37 | +0.06 | +0.96 |
| 76 | Apr 2011 | +12 | +190 | 0.17 | +0.08 | +1.33 | +0.01 | +0.19 | +0.07 | +1.14 |
| 77 | May 2011 | +12 | +194 | 0.17 | +0.09 | +1.33 | +0.00 | +0.05 | +0.08 | +1.29 |
| 78 | Jun 2011 | +13 | +196 | 0.18 | +0.09 | +1.33 | +0.01 | +0.11 | +0.08 | +1.22 |
| 79 | Jul 2011 | +13 | +197 | 0.18 | +0.09 | +1.33 | +0.02 | +0.25 | +0.07 | +1.09 |
| 80 | Aug 2011 | +13 | +195 | 0.18 | +0.09 | +1.33 | +0.02 | +0.32 | +0.07 | +1.02 |
| 81 | Sep 2011 | +13 | +192 | 0.18 | +0.09 | +1.33 | +0.03 | +0.38 | +0.06 | +0.96 |
| 82 | Oct 2011 | +13 | +188 | 0.18 | +0.09 | +1.33 | +0.01 | +0.22 | +0.08 | +1.12 |
| 83 | Nov 2011 | +13 | +197 | 0.18 | +0.09 | +1.33 | +0.00 | +0.04 | +0.09 | +1.30 |
| 84 | Dec 2011 | +13 | +186 | 0.18 | +0.09 | +1.33 | -0.01 | -0.10 | +0.10 | +1.43 |
| 85 | Jan 2012 | +13 | +187 | 0.18 | +0.09 | +1.33 | -0.03 | -0.41 | +0.12 | +1.74 |
| 86 | Feb 2012 | +13 | +188 | 0.19 | +0.10 | +1.33 | -0.05 | -0.73 | +0.15 | +2.06 |
| 87 | Mar 2012 | +14 | +190 | 0.19 | +0.10 | +1.33 | -0.06 | -0.86 | +0.16 | +2.19 |
| 88 | Apr 2012 | +14 | +193 | 0.20 | +0.10 | +1.33 | -0.06 | -0.77 | +0.15 | +2.10 |
| 89 | May 2012 | +15 | +196 | 0.20 | +0.10 | +1.33 | -0.06 | -0.75 | +0.15 | +2.08 |
| 90 | Jun 2012 | +15 | +198 | 0.21 | +0.10 | +1.33 | -0.05 | -0.65 | +0.15 | +1.99 |
| 91 | Jul 2012 | +15 | +198 | 0.21 | +0.10 | +1.33 | -0.05 | -0.64 | +0.15 | +1.97 |
| 92 | Aug 2012 | +15 | +197 | 0.21 | +0.10 | +1.33 | -0.05 | -0.60 | +0.15 | +1.94 |
| 93 | Sep 2012 | +15 | +194 | 0.21 | +0.10 | +1.33 | -0.03 | -0.45 | +0.15 | +1.78 |
| 94 | Oct 2012 | +15 | +192 | 0.21 | +0.10 | +1.33 | -0.03 | -0.34 | +0.13 | +1.68 |
| 95 | Nov 2012 | +15 | +191 | 0.21 | +0.11 | +1.33 | -0.02 | -0.30 | +0.13 | +1.64 |
| 96 | Dec 2012 | +15 | +191 | 0.21 | +0.11 | +1.33 | -0.03 | -0.33 | +0.13 | +1.66 |
| 97 | Jan 2013 | +15 | +192 | 0.21 | +0.11 | +1.33 | -0.01 | -0.13 | +0.12 | +1.46 |
| 98 | Feb 2013 | +16 | +193 | 0.22 | +0.11 | +1.33 | -0.01 | -0.14 | +0.12 | +1.47 |
| 99 | Mar 2013 | +16 | +195 | 0.22 | +0.11 | +1.33 | -0.01 | -0.14 | +0.12 | +1.48 |
| 100 | Apr 2013 | +16 | +197 | 0.23 | +0.11 | +1.33 | -0.01 | -0.18 | +0.13 | +1.51 |
| 101 | May 2013 | +17 | +200 | 0.23 | +0.11 | +1.33 | -0.02 | -0.25 | +0.13 | +1.58 |
| 102 | Jun 2013 | +17 | +202 | 0.24 | +0.11 | +1.33 | -0.02 | -0.19 | +0.13 | +1.52 |
| 103 | Jul 2013 | +17 | +203 | 0.24 | +0.12 | +1.33 | -0.02 | -0.20 | +0.13 | +1.53 |
| 104 | Aug 2013 | +18 | +202 | 0.24 | +0.12 | +1.33 | -0.02 | -0.23 | +0.14 | +1.56 |
| 105 | Sep 2013 | +18 | +201 | 0.24 | +0.12 | +1.33 | -0.01 | -0.16 | +0.13 | +1.49 |
| 106 | Oct 2013 | +18 | +199 | 0.24 | +0.12 | +1.33 | -0.01 | -0.13 | +0.13 | +1.46 |
| 107 | Nov 2013 | +18 | +198 | 0.24 | +0.12 | +1.33 | -0.01 | -0.16 | +0.13 | +1.50 |
| 108 | Dec 2013 | +18 | +198 | 0.25 | +0.12 | +1.33 | -0.01 | -0.16 | +0.13 | +1.49 |
| 109 | Jan 2014 | +18 | +199 | 0.25 | +0.12 | +1.33 | -0.01 | -0.12 | +0.13 | +1.45 |

- For more details of how the Global Warming Prediction Index is calculated, and for links to all the source datasets, please visit www.lordmoncktonfoundation.com.
- The graph takes account of the IPCC's sharp reduction in its near-term global warming prediction from 0.7[0.4, 1.0] to 0.4[0.3, 0.07] Celsius degrees over 30 years, a cut of almost half in the mid-range best estimate between the pre-final (2012) and final (2013) drafts of the *Fifth Assessment Report*.

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