

Senate Standing Committee on Environment and Communications
Legislation Committee
Answers to questions on notice
Environment and Energy portfolio

Question No: 248
Hearing: Additional Estimates
Outcome: Agency
Program: Bureau of Meteorology (BoM)
Topic: Current temperature rises
Hansard Page:
Question Date: 2 March 2017
Question Type: Written

Senator Burston asked:

The BoM attributes current temperature rises to human industrial activity rather than the historical ebb and flow of global warming and cooling as part of the natural phenomenon of climate change. Is there a weather satellite that monitors climate change using infrared ray technology which suggests there has been no rise in the temperature of the Earth's atmosphere for the past 18 years?

Answer:

There is no weather satellite that monitors global temperatures using infrared ray technology with a record that extends for 18 years. The first new generation infrared satellite capable of precision temperature measurement was only launched in 2002.

While not using infrared technology, microwave satellites have been used since 1979 to measure temperatures through layers of the atmosphere (see www.remss.com/missions/amsu). There is an approximately 18.5 year period from early 1997 to late 2015 where this data shows no significant trend in globally averaged tropospheric temperatures. When considering the entire dataset from January 1979 to March 2017 the data show a warming trend of 0.135 °C per decade, which is consistent with both the surface observations, and radiosonde (weather balloon) records.

For further information comparing satellite and surface temperatures, please see www.bom.gov.au/climate/change/acorn-sat/#tabs=FAQs, particularly question 20.