

**Economics Legislation Committee**  
**ANSWERS TO QUESTIONS ON NOTICE**  
Industry, Innovation, Science, Research and Tertiary Education Portfolio  
Supplementary Budget Estimates Hearing 2012-13  
26 November 2012

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**AGENCY/DEPARTMENT:** DEPARTMENT OF INDUSTRY, INNOVATION, SCIENCE, RESEARCH AND TERTIARY EDUCATION

**TOPIC:** Atmospheric interaction

**REFERENCE:** Question on Notice (Hansard, Monday 26 November 2012, Page 9)

**QUESTION No.:** SI-201

**Senator BUSHBY:** This goes back to something that a retired NASA scientist told me a couple of years ago. I have no idea whether or not it is true, but you may be able to assist me. He suggested that—and it may well be depending on whether you are in the troposphere or which level of the atmosphere you are in—there is very little interaction between the atmosphere in the Southern Hemisphere and the atmosphere in the Northern Hemisphere. Is that something that you have any knowledge about?

**Prof. Chubb:** No, not really.

**Senator BUSHBY:** Is that something you could take on notice? I would be quite interested in the answer to that—if he was right or if he was wrong.

**Prof. Chubb:** Yes, we can do that.

**ANSWER**

There is interaction between the atmosphere in the Southern Hemisphere and the atmosphere in the Northern Hemisphere. Inter-hemispheric exchange in the atmosphere occurs with a characteristic time scale of about a year.