

**Senate Standing Committee on Environment, Communications and The Arts
Legislation Committee**

Answers to questions on notice

Environment, Water, Heritage and the Arts portfolio

Budget Estimates, May 2009

Outcome:	1	Question No:	17
Program:	1.1		
Division/Agency:	Bureau of Meteorology		
Topic:	Cross-subsidising specialist services		
Hansard Page ECA:	79 (27/5/09)		

Senator Birmingham asked:

Senator BIRMINGHAM—Broadly, that clarifies the issue; thank you. However, to have some clarity around where that will be spent on those other agencies or bodies or on services on behalf those other agencies or bodies, is it possible to break down those figures or to highlight just in a little more detail exactly what the nature of the spend is?

Dr Smith—Could I ask for clarification? Are you asking for a description of the services that we provide to aviation and defence or specifically against the additional funding that is identified in the budget?

Senator BIRMINGHAM—Ideally, specifically against the additional funding. If that is not possible for some reason then at least an indication of the services and their overall value would help.

Dr Smith—I certainly cannot provide it in detail. That measure was approved by government and we are sitting down to try to make sure that those funds are appropriated against high-priority tasks. The sorts of areas where that cross-subsidisation was taking place were very broad, so we want to look at and decide our priorities in the light that funding measure. In detail I cannot tell you, but we are also keeping in mind that we want to maintain and, where possible, improve the level of our services and our efficiency. So it gives us an opportunity to look at things in those areas.

Senator BIRMINGHAM—Perhaps you could take the detail component on notice and provide what information is possible thereafter; that would be much appreciated.

Answer:

The funds will be utilised for service delivery across the Bureau over the following time frame:

- \$2.2m in the second half of the 2009/10 financial year;
- \$4.8m during the 2010/11 financial year;
- \$4.6m during the 2011/12 financial year; and
- \$4.5m during the 2012/13 financial year.

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Budget Estimates, May 2009

Outcome:	1	Question No:	18
Program:	1.1		
Division/Agency:	Bureau of Meteorology		
Topic:	Strategic Radar enhancement project		
Hansard Page ECA:	80 (27/5/09)		

Senator BIRMINGHAM asked:

Senator BIRMINGHAM—What are the other sites left in the top band?

Dr Smith—I think I mentioned them. From memory, there is one in New South Wales. There was the Eyre Peninsula. There were two in Western Australia. That is at least four of them.

Senator BIRMINGHAM—Perhaps you could take that on notice and give us the locations or regions involved. That would be helpful.

Answer:

The other locations are:

- the Dubbo/Parkes area of New South Wales;
- the Lower Eyre Peninsula of South Australia;
- the Mallee region near the border of Victoria and South Australia; and
- the southwest of Western Australia near Cape Leeuwin.

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Budget Estimates, May 2009

Outcome:	1	Question No:	19
Program:	1.1		
Division/Agency:	Bureau of Meteorology		
Topic:	Adelaide Advertiser report – Mr Andrew Watson		
Hansard Page ECA:	80 (27/5/09)		

Senator BIRMINGHAM asked:

Senator BIRMINGHAM—It is reported in today's *Adelaide Advertiser*, that esteemed journal of record, that at the South Australian climate forum yesterday the SA Regional Director, Mr Andrew Watson, of—I am taking it to be the bureau?

Dr Smith—He is the regional director of the South Australian office.

Senator BIRMINGHAM—He was reported as saying that weather forecasters are finding it more difficult than ever to make accurate predictions because climate change is 'contaminating and corrupting weather patterns'. Is that a valid statement in the eyes of the bureau overall?

Dr Smith—Unfortunately I have not been able to clarify what Mr Watson said...

Ms Kruk—It might be better that Dr Smith finds out what his regional manager said.

...

Senator BIRMINGHAM—I only have a few extracts here. There are the obvious statements: If the climate was static like it was in the first 50 years of this century then we would be in an easier game.

If the climate was static it would be an easier game forecasting, I am sure. I do not know whether to say that the climate was static in the first 50 years is accurate. I am not going to go through each quote.

Answer:

The comment "weather forecasters are finding it more difficult than ever to make accurate predictions because climate change is 'contaminating and corrupting weather patterns' was made in the context of seasonal and longer term forecasts where an on-going movement in "mean" climate conditions (for example, a steadily warming atmosphere, changes in the movement of pressure systems, decreasing annual rainfall) could affect the usefulness of some of the tools that the Bureau currently uses to predict future seasonal conditions. The comment was mindful of the Bureau's Seasonal Outlook service, which is based on historical statistical analogues.

The quote referring to the climate being "static in the first 50 years..." related to the time series of temperatures in South Australia over the past century which shows a lack of significant trend during the 50 year period leading up to around 1960. Since then, there has been an obvious upward trend.

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Environment, Water, Heritage and the Arts portfolio

Budget Estimates, May 2009

Outcome:	1	Question No:	20
Program:	1.1		
Division/Agency:	Bureau of Meteorology		
Topic:	Autosondes		
Hansard Page ECA:	83 (27/5/09)		

Senator IAN MACDONALD asked:

Senator IAN MACDONALD—It was reported in late April that the Australian Federation of Air Pilots had expressed their concern at inaccurate weather data coming from those Autosondes, as I understand it. They quoted in the paper that a bureau whistleblower revealed that weather watching authorities' automated systems which had been used in Mount Isa, Charleville and Weipa for 11 years was prone to chronic breakdowns experiencing a 40 to 50 per cent failure rate. I am reading from a newspaper. Is that accurate? Would you like your right of reply to that, or did you have a right of reply somewhere?

Mr Foley—I do not believe it is accurate but I cannot give you a precise figure on it, so if you would like I could take that on notice.

Answer:

Excluding planned maintenance outages, the success rate of automatic balloon soundings across the entire Bureau Autosonde network has been more than 97 per cent up to 17 June 2009. One station in the network, Meekatharra, did exhibit a 40 per cent failure rate for the month of March 2009, but that was due to the failure of a computer at that site, not the Autosonde balloon release system. A "failure" is defined in this context to be the inability to launch a successful balloon flight within one hour of the scheduled time.

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Budget Estimates, May 2009

Outcome:	1	Question No:	21
Program:	1.1		
Division/Agency:	Bureau of Meteorology		
Topic:	Autosondes – accuracy and cost		
Hansard Page ECA:	84 (27/5/09)		

Senator MACDONALD asked:

Senator IAN MACDONALD—Those Autosondes are made in Finland, aren't they, at a cost of \$750,000, I am told?

Mr Foley—They are made in Finland. I do not know the cost.

...

Senator IAN MACDONALD—Would you say that the suggestion that there is a 40 to 50 per cent failure rate is not correct?

Mr Foley—I do not believe so, but I will take it on notice to get you an accurate figure.

...

Senator IAN MACDONALD—There was a suggestion that there was a domestically produced alternative available that would cost only about \$150,000 as opposed to \$750,000, which is the suggested cost of the Autosondes.

...

I am going to ask on notice perhaps could you just perhaps give me a paragraph or two—I appreciate it is 2007—because I would just like to know whether there was an alternative produced and, if so, why it was not suitable.

Answer:

Excluding planned maintenance outages, the success rate of automatic balloon soundings across the entire Bureau Autosonde network has been more than 97 per cent from 1 January to 17 June 2009. One station in the network, Meekatharra, did exhibit a 40 per cent failure rate for the month of March 2009, but that was due to the failure of a computer at that site, not the Autosonde balloon release system. A “failure” is defined in this context to be the inability to launch a successful balloon flight within one hour of the scheduled time.

In 2007, the Bureau was aware of a locally sourced balloon launcher. However, the locally sourced balloon launcher was a manually loaded and operated, single balloon release, system whereas the Bureau's requirement was for an automated (unattended) system. The 'Autosonde' meets the Bureau's requirement for automatic operation and provides substantial additional capability allowing quality controlled observational data to be collected automatically from the balloon flight and transferred to a central data reception and processing facility.

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Budget Estimates, May 2009

Outcome:	1	Question No:	22
Program:	1.1		
Division/Agency:	Bureau of Meteorology		
Topic:	Adelaide's weather forecast temperature		
Hansard Page ECA:	87 (27/5/09)		

Senator BIRMINGHAM asked:

Senator BIRMINGHAM—That is right. Ignore the remarks. Is either Adelaide or Australia two degrees warmer now than 50 years ago?

Dr Smith—It is an ill-posed question, with respect, and I cannot answer something like that. You will have to ask: is a particular location warmer? If you can provide some specifics then I might be to either answer it or go away and get you an answer.

Senator BIRMINGHAM—Is Adelaide specific enough or would you like me to say the Kent Town weather bureau in Adelaide?

Dr Smith—Are you asking whether Adelaide, today, is two degrees warmer than it was 50 years ago, or whether there has been a two degrees temperature rise in Adelaide over that period? I do not know off hand just what the temperature record over 50 years is for Adelaide. I can check if you are interested in Adelaide.

Senator BIRMINGHAM—I would appreciate if you could check the detail of these things, but on average with the weather pattern—and by 'average' take the year or take even monthly forecasts—is there any likelihood at all that Adelaide's average forecasts are two degrees warmer than they were 50 years ago?

Answers:

Temperature data for South Australia show that the increase in annual average maximum temperatures from 1950 to 2008, based on a 5 year average, has been in excess of 1.5°C. The increase in maximum temperature at the Bureau's office at Adelaide Airport for the same period is close to 1.5°C. Trends in northern South Australia have been stronger than the state-wide mean. One area of the state near Yunta, to the northeast of Adelaide, has experienced a 50 year rise in maximum temperature of close to 2.5°C. Records of minimum temperatures show an increase of more than 1°C over the period since 1950, for South Australia overall and at Adelaide Airport.

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Budget Estimates, May 2009

Outcome:	1	Question No:	23
Program:	1.1		
Division/Agency:	Bureau of Meteorology		
Topic:	Media policy - speeches		
Hansard Page ECA:	88 (27/5/09)		

Senator BIRMINGHAM asked:

Senator BIRMINGHAM—With comments relating to climate change or a speech to a gathering related to climate change, you would expect the speech or comments to be discussed in advance with the bureau's experts on climate change and its impact on forecasting and weather patterns?

Dr Smith—I would expect that.

Senator BIRMINGHAM—That would be a most reasonable expectation. We do not know whether it did or did not occur in this instance, but certainly if you could check to see if it did occur, that would be appreciated.

Answer:

The interview with "The Advertiser" newspaper was undertaken by the Bureau's Regional Director, South Australia. The Regional Director is the regional manager of weather and climate services, and as part of his function, is in regular contact with Bureau experts on weather and climate to ensure that he is up to date with the latest information. These close relationships ensure the Regional Director has an intimate understanding of the connections between day to day weather forecasts and climate change, particularly within his area of jurisdiction.

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Budget Estimates, May 2009

Outcome:	1	Question No:	24
Program:	1.1		
Division/Agency:	Bureau of Meteorology		
Topic:	Bureau of Meteorology – Specialist services		
Hansard Page ECA:	Written Question on Notice		

Senator BIRMINGHAM asked:

1. How exactly does the Government propose to spend \$16.1 million additional funding intended to “enable the Bureau to cease the current practice of cross-subsidising specialist services from other services”?
2. When, where and on what will this be spent?

Answers:

1. The funds will be utilised for service delivery across the Bureau.
2. The funds will be spent in accordance with the above, over the following time frame:
\$2.2m in the second half of the 2009/10 financial year;
\$4.8m during the 2010/11 financial year;
\$4.6m during the 2011/12 financial year; and
\$4.5m during the 2012/13 financial year.

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Budget Estimates, May 2009

Outcome:	1	Question No:	25
Program:	1.1		
Division/Agency:	Bureau of Meteorology		
Topic:	Weather radar locations		
Hansard Page ECA:	Written Question on Notice		

Senator BIRMINGHAM asked:

The Government will spend \$48 million over seven years for the Bureau to install and maintain four new weather radars at Wollongong, Hobart, Mount Isa and Croker Island/Maningrida.

1. How were the locations for these radars chosen?
2. Will any other weather radars be installed at other locations?

Answers:

1. These four locations were chosen because of their very high priority impacts:
 - *The Croker Island/Maningrida radar* will fill a critical gap along the cyclone prone north coast of the Northern Territory, enhancing weather and warning information to the community and the important tourist industry;
 - *The Hobart radar* will be re-sighted and offer continuous weather watch and enhanced coverage to a high population centre and the surrounding environs;
 - *The Mount Isa radar* will cover a key populated centre and economically important mining community, support flood warnings and contribute to monitoring rainfall produced by cyclones tracking in from the Gulf of Carpentaria and other weather systems in northwest Queensland; and
 - *The Wollongong radar* will ensure ongoing coverage of the densely populated Wollongong area and, in conjunction with the Sydney based radars, contribute to identifying and tracking the passage of storms and flood rains.
2. No other radars will be installed under the new Strategic Radar Enhancement Project.

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Outcome:	1	Question No:	26
Program:	1.1		
Division/Agency:	Bureau of Meteorology		
Topic:	Weather stations		
Hansard Page ECA:	Written Question on Notice		

Senator BROWN asked:

1. Does the Bureau of Meteorology have a weather station at Legges Tor (1572m) on Ben Lomond? If not, why not?
2. Does the Bureau of Meteorology have a weather station at Pine Lake (1210m) on the Central Plateau (the highest point of any highway in Tasmania)? If not, why not?

Answers:

1. No. The Bureau of Meteorology collects observations representative of the prevailing weather over the region from observing sites at Fingal (27km from Legges Tor) and Launceston Airport (37km from Legges Tor).
2. No. The Bureau of Meteorology collects observations representative of the prevailing weather over the region from an observing site at Liawenee which is located 17km from Pine Lake.