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Ref: B14/3074
Routine/Low Complexity

DEPARTMENT OF THE PRIME MINISTER AND CABINET

M&C
ecretary
As Cross
As Gruen
As Hazlehurst
As Taylor
As Wilson
As Wood
As Taitbas

To: Prime Minister (for decision)

UNITED NATIONS CONVENTION ON CLIMATE CHANGE (UNFCCC)
TASKFORCE - TERMS OF REFERENCEMO
As Credlin
s22

File

Recommendations - that you:

1. Agree to the amended terms of reference for the UNFCCC taskforce (Attachment A) and sign the letters to Ministers outlining the amended terms (Attachment B); and

Agreed/Not Agreed

s22

TONY ABBOTT

Date:

Comments:

Key Points:

Taskforce terms of reference

s22

2. Minister Hunt suggests removing the reference to the Bureau of Meteorology's (BOM) Australian temperature dataset. Your office has been working with Senator Birmingham to appoint a suitably qualified individual, supported by one or two independent technical experts to undertake a quality assurance review of the dataset by February 2015. This work need not be duplicated by the Taskforce. The review will look into the specific claims published in *The Australian* in August 2014 that the BOM was adjusting its data to fit a predetermined view of global warming.
 - a. The draft reply to Minister Hunt asks him to ensure Senator Birmingham writes to you with the outcome of the review.
3. Senator Birmingham is also strengthening long-term oversight of the BOM's work in this area. This will involve external experts periodically reviewing the BOM's processes and methodologies in relation to the temperature dataset.

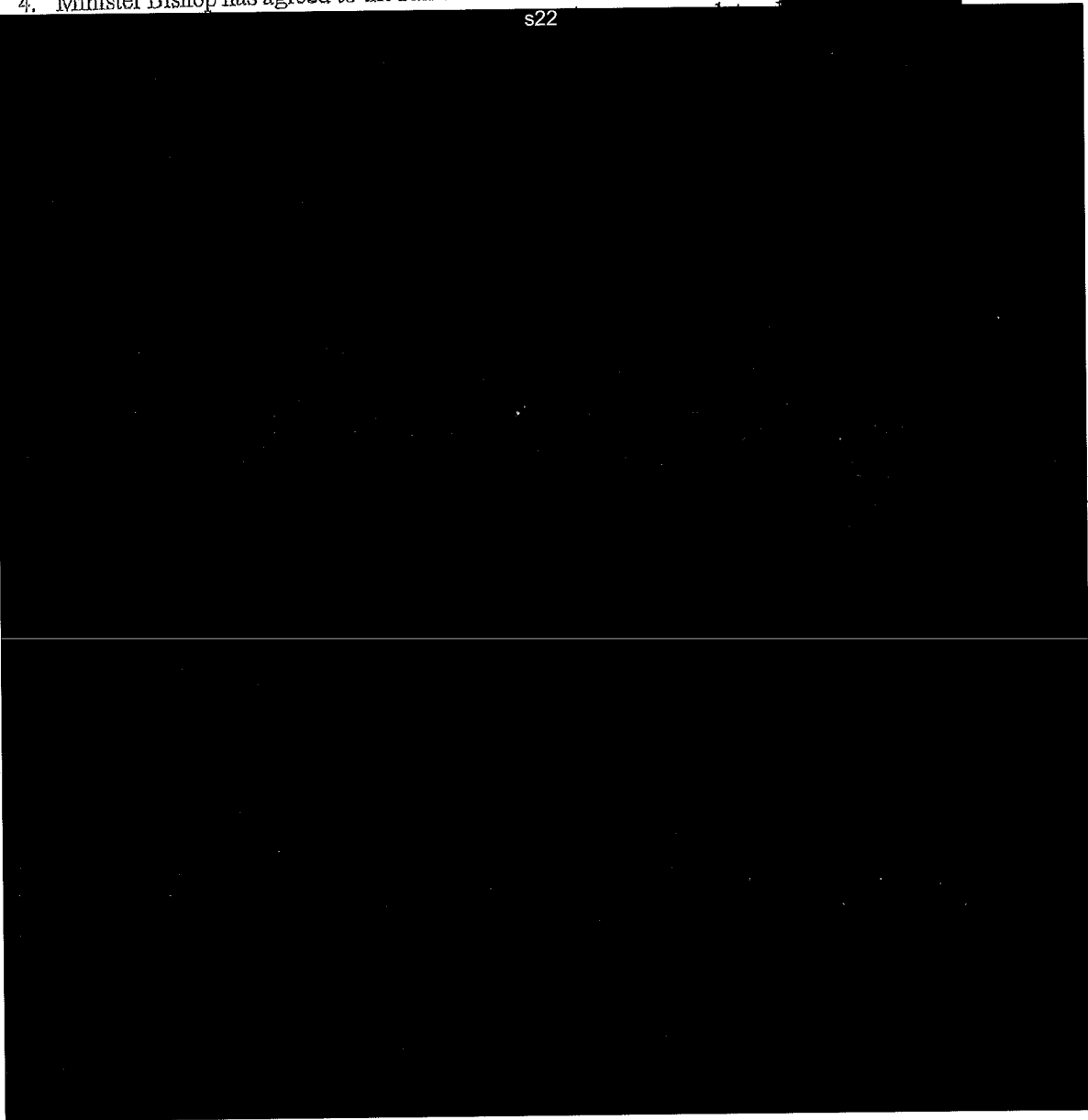
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4. Minister Bishop has agreed to the removal of reference to the BOM, and

s22

s22



s22

David Hazlehurst
Executive Coordinator
19 November 2014

Policy Officer: Helen Wilson
Phone no: s22
Consultation: International Division,
Department of Environment, DFAT

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ATTACHMENTS

ATTACHMENT A AMENDED TERMS OF REFERENCE: VERSION WITH
AMENDMENTS HIGHLIGHTED AND CLEAN VERSION

ATTACHMENT B DRAFT LETTERS TO MINISTERS

ATTACHMENT C INCOMING LETTER FROM MR HUNT

s22



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Terms of Reference for 2015 UNFCCC Taskforce

s22



Taskforce responsibilities will include coordination and advice on:

s22



- quality assured to ensure Australia's climate and emissions data for Australia; are the best possible, including the Bureau of Meteorology's Australian temperature dataset and other related data; and ((

s22



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Terms of Reference for 2015 UNFCCC Taskforce

s22



Taskforce responsibilities will include coordination and advice on:

s22



- quality assured climate and emissions data for Australia;

s22



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Reference: B14/3074

The Hon Greg Hunt MP
Minister for the Environment
Parliament House
CANBERRA ACT 2600

Dear Minister

I am writing to you in relation to the terms of reference for the taskforce coordinating an approach to preparations for the 2015 UNFCCC Paris Climate Change Conference.

Please find attached the final terms of reference, revised following consideration of your, Minister Bishop's and Minister Macfarlane's responses.

Thank you for working with Senator Birmingham to strengthen oversight of the Bureau of Meteorology's temperature dataset. The credibility of government agencies is important and must be ensured. I ask that Senator Birmingham write to me reporting on the outcome of the review of the temperature dataset.

s22



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I have copied this letter to the Minister for Foreign Affairs, the Treasurer,
the Minister for Industry and the Parliamentary Secretary to the Minister for the
Environment.

Yours sincerely

TONY ABBOTT

((

((



The Hon Greg Hunt MP
Minister for the Environment

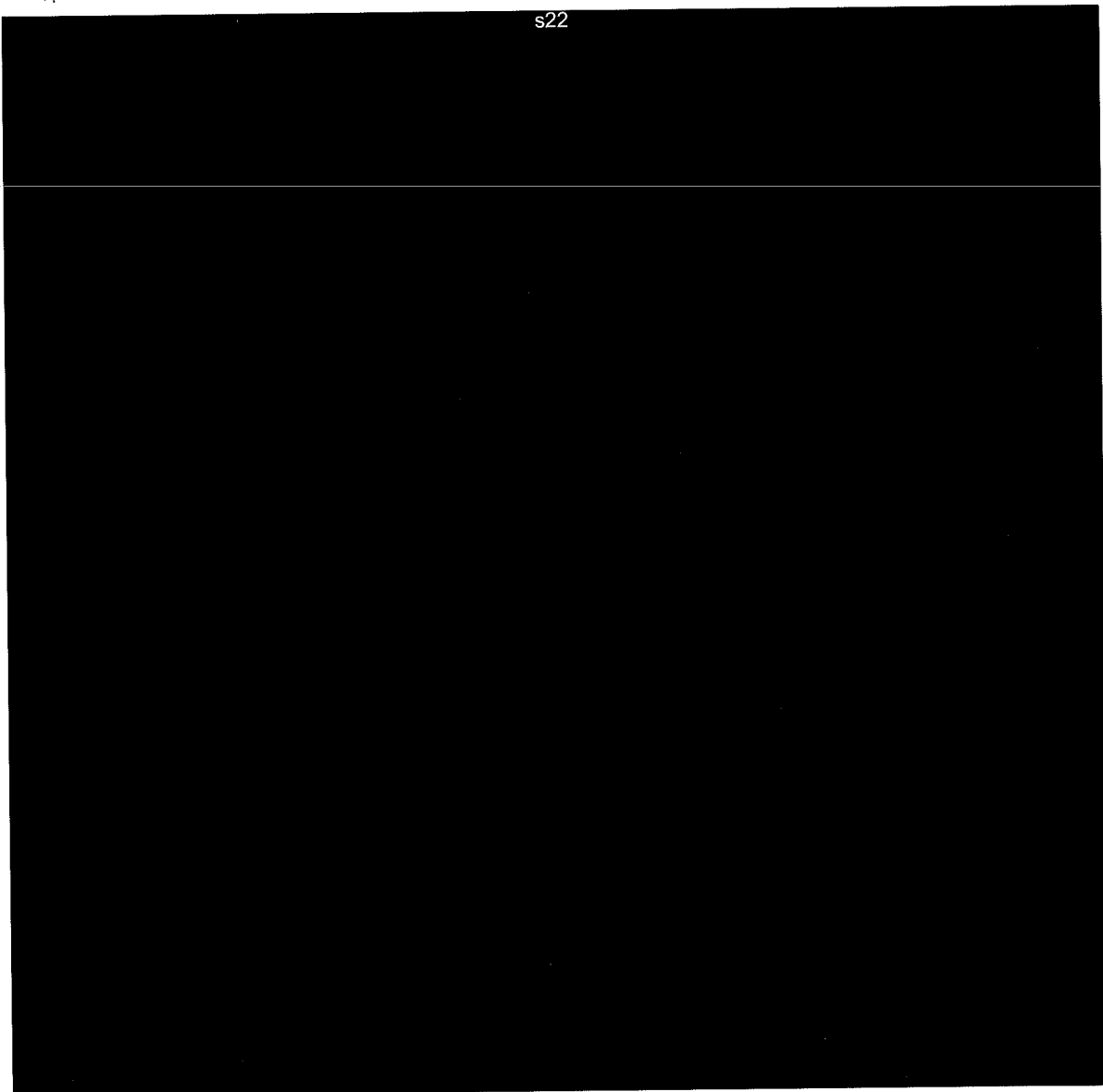
PDR: MC14-023005

The Hon Tony Abbott MP
Prime Minister
Parliament House
CANBERRA ACT 2600

18 NOV 2014

Dear Prime Minister

s22



The draft terms of reference refers to the taskforce doing due diligence on the Bureau of Meteorology's Australian temperature data set. In doing this, it is important to note that public trust in the Bureau's data and forecasts, particularly as they relate to bushfires and cyclones is paramount.

Given the recent publicity about the Bureau's temperature data sets, Senator Birmingham and I established a strengthened governance oversight of the Bureau's ongoing work in this area. It is important to emphasise that this is primarily a matter of meteorology, statistics and data assurance.

This oversight arrangement will involve a panel of qualified persons, including eminent statisticians, to periodically review the Bureau's work. This will be a public and ongoing process, with an announcement of panel members in the near future.

In that context, having the taskforce undertake quality assurance of the Bureau would duplicate work already being undertaken. As such, I recommend there be no reference to the Bureau of Meteorology in the terms of reference, nor to the taskforce doing due diligence on Australia's climate and emissions data.

I understand Senator Birmingham is having discussions with your office on how any remaining uncertainties about the previous assurance processes could be addressed.

That said, I would expect that the taskforce would provide clear, verified information sourced from the Bureau and elsewhere on Australia's climate and emissions data to inform preparations for the Paris Conference.

I look forward to the taskforce commencing its work.

Yours sincerely

Greg Hunt

s22

From: Gruen, David
Sent: Wednesday, 19 November 2014 9:31 AM
To: Taylor, Marie; Wilson, Helen; Hazlehurst, David
Cc: s22
Subject: RE: Hunt Letter and PM;'s brief [SEC=UNCLASSIFIED]

UNCLASSIFIED

s47C

David Parker has been on a campaign to get us to change it.

David

From: Taylor, Marie
Sent: Tuesday, 18 November 2014 6:28 PM
To: Wilson, Helen; Gruen, David; Hazlehurst, David
Cc: s22
Subject: RE: Hunt Letter and PM;'s brief [SEC=UNCLASSIFIED]

UNCLASSIFIED

Interesting.

s22

Note Minister Hunt recommends the removal of the reference to the BOM review and the removal of the reference to doing due diligence on climate and emissions data. s47C

Marie

Marie Taylor
First Assistant Secretary
Industry, Infrastructure & Environment Division
Department of the Prime Minister & Cabinet
ph s22

s22

From: Parker, David [REDACTED] s22
Sent: Tuesday, 18 November 2014 3:44 PM
To: Gruen, David; Hazlehurst, David; Wilson, Helen
Cc: de Brouwer, Gordon; Archer, Brad
Subject: FW: [SEC=UNCLASSIFIED]

Colleagues

Apparently this was signed at about the same time we were meeting this morning.

Regards
David

From: Gibbons, Patrick
Sent: Tuesday, 18 November 2014 3:31 PM
To: Parker, David
Subject: [SEC=UNCLASSIFIED]

David, attached is the letter to the PM.

Regards

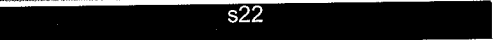
Patrick

s22



s22

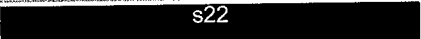


From: Parker, David  s22
Sent: Tuesday, 18 November 2014 3:58 PM
To: Wilson, Helen
Cc: Hazlehurst, David; Gruen, David; Taylor, Marie; de Brouwer, Gordon; Archer, Brad
Subject: RE: PM Brief on UNFCCC Taskforce - para's on BOM [DLM=For-Official-Use-Only]

Helen,

Thanks – this looks OK. No doubt you will pick up that Minister Hunt has now written and you can reflect specifics of the response as necessary in the brief.

Regards
David

From: Wilson, Helen  s22
Sent: Tuesday, 18 November 2014 3:33 PM
To: Parker, David
Cc: Hazlehurst, David; Gruen, David; Taylor, Marie
Subject: PM Brief on UNFCCC Taskforce - para's on BOM [DLM=For-Official-Use-Only]

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Hi David,

as discussed this morning, grateful for your clearance/comments (by cob today if at all possible) on the para's below and the attached letter. The paras are for our brief to the PM, seeking his agreement to the Terms of Reference (track changes version attached).

s22



Happy to discuss

kind regards

Helen

Helen Wilson | Assistant Secretary
Infrastructure, Climate and Energy Branch
Industry, Infrastructure & Environment Division | Department of the Prime Minister and Cabinet
p. [REDACTED] s22 | m. [REDACTED] s22 | f. [REDACTED] s22
e. [REDACTED] s22
PO Box 6500 CANBERRA ACT 2600

*Please note I do not work Fridays. Please contact [REDACTED] s22

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s22



From: Wilson, Helen

Sent: Tuesday, 18 November 2014 3:33 PM

To:  s22

Cc: Hazlehurst, David; Gruen, David; Taylor, Marie

Subject: PM Brief on UNFCCC Taskforce - para's on BOM [DLM=For-Official-Use-Only]

UNCLASSIFIED For Official Use Only

Hi David,

as discussed this morning, grateful for your clearance/comments (by cob today if at all possible) on the para's below and the attached letter. The paras are for our brief to the PM, seeking his agreement to the Terms of Reference (track changes version attached).

s22



s47C



Happy to discuss

kind regards

Helen

Helen Wilson | Assistant Secretary

Infrastructure, Climate and Energy Branch

Industry, Infrastructure & Environment Division | Department of the Prime Minister and Cabinet

p. s22 m s22 f. s22

e. s22

PO Box 6500 CANBERRA ACT 2600

*Please note I do not work Fridays. Please contact s22

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Terms of Reference for 2015 UNFCCC Taskforce

s22



Taskforce responsibilities would include coordination and advice on:

s22



- quality assured to ensure Australia's climate and emissions data for Australia; are the best possible, including the Bureau of Meteorology's Australian temperature dataset and other related data; and

s22



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Reference: B14/3074

The Hon Greg Hunt MP
Minister for the Environment
Parliament House
CANBERRA ACT 2600

Dear Minister

I am writing to you in relation to the terms of reference for the taskforce coordinating an approach to preparations for the 2015 UNFCCC Paris Climate Change Conference.

Please find attached the final terms of reference, revised following consideration of Ministers' suggestions.

s47C



s22

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I have copied this letter to the Minister for Foreign Affairs, the Treasurer,
the Minister for Industry and the Parliamentary Secretary to the Minister for the
Environment.

Yours sincerely

TONY ABBOTT

s22

From: Wilson, Helen
Sent: Monday, 17 November 2014 1:35 PM
To: Hazlehurst, David
Cc: s22 Taylor, Marie
Subject: Email to David Parker re; BOM [SEC=PROTECTED, DLM=Sensitive]

PROTECTED Sensitive

s22

s47C

s22

From: s22
Sent: Friday, 14 November 2014 12:57 PM
To: Hazlehurst, David
Cc: Morgan, Nick; Gruen, David; Wilson, Helen; Taylor, Marie; s22
Subject: UNFCCC taskforce next steps [SEC=PROTECTED, DLM=Sensitive:Cabinet]

PROTECTED Sensitive: Cabinet

Hi David

s22

PM Brief on UNFCCC taskforce. We put the current draft brief in your in tray this morning. Would appreciate your feedback on the brief. Also, do you know if s22 resolved the BOM issue with Senator Birmingham? Have discussed a couple of times further with s22 He's speaking to the Parl Sec this arvo and will let me know how he's gone.

- Still waiting on Minister Hunt's reply, but consider the brief is still worth putting up early next week if we don't have a reply by Minister Hunt by then. The updated terms of reference incorporate most of Ministers suggestions, and take out the BOM wording. Of course if we get a letter from Minister Hunt, we'll update the brief. Agree.

s22

Thanks

s22

s22 | A/g Assistant Secretary
Infrastructure, Climate and Energy Branch
Industry, Infrastructure and Environment Division | Department of the Prime Minister and Cabinet
p. s22 | m. s22
e. s22
PO Box 6500 CANBERRA ACT 2600

s22

s22

From: s22
Sent: Thursday, 13 November 2014 10:25 AM
To: Wilson, Helen
Cc: s22
Subject: UNFCCC taskforce ToR [DLM=Sensitive:Personal]
Attachments: UNFCCC ToR with tracked changes.docx

UNCLASSIFIED Sensitive: Personal

Hi Helen,

Please see attached the original Terms of Reference that the PM would have seen, with the amendments in track changes. These are consistent with those cleared by David Hazlehurst.

s22

From: Parker, David s22
Sent: Friday, 10 October 2014 5:52 PM
To: Wilson, Helen
Cc: Hazlehurst, David; Gruen, David; Taylor, Marie; de Brouwer, Gordon
Subject: RE: 2015 UNFCCC Paris Conference [DLM=Sensitive:Personal]

Helen – thanks this is a good step forward.

I struggle to grasp exactly what it is that the taskforce would do to fulfil its responsibilities in the revised ToRs of:

s47C

The other responsibilities are much more specific (appropriately so) and if we can be similarly specific in these two areas then it would be preferable to say so. To be helpful, here is an alternate suggestion:

s47C

As foreshadowed at the meeting at PM&C we have prepared a draft letter from the Minister in response to the Prime Minister's letter. I will shortly forward it to you from our protected system.

Following is the other info you requested re the BOM data set and some other background info:

- The brief to the Parliamentary Secretary and response on the quality assurance process re the temperature dataset is attached.
- This link to the BOM website has all the background on the review of the data (the other tabs on that page will give you the data, and the adjustments, and why, and all sorts of stuff that fascinates weather buffs) : <http://www.bom.gov.au/climate/change/acorn-sat/#tabs=Expert-review>
- The story about Australian emissions data and the quality assurance process which involves a UNFCCC process – this is a big job for experts, with the UNFCCC delegation of country experts here all this week to pour over our stuff. We repay the favour by participating in delegations to verify the emissions info produced by other countries: <http://www.environment.gov.au/system/files/pages/63b569ff-ae63-4d7b-be54-16f2e79900e0/files/nga-factsheet1.pdf>
- All the data on emissions: <http://www.environment.gov.au/climate-change/greenhouse-gas-measurement/publications#national>

Cheers
David

From: Wilson, Helen [REDACTED] s22
Sent: Thursday, 9 October 2014 7:45 PM
To: Parker, David
Cc: Hazlehurst, David; Gruen, David; Taylor, Marie
Subject: 2015 UNFCCC Paris Conference [DLM=Sensitive:Personal]

UNCLASSIFIED Sensitive: Personal

Hi David,

As discussed yesterday would be grateful for any comments you have on the attached amended Terms of Reference by cob Monday. [REDACTED] s22

Also would be great if we can have the information I requested on the BOM and Senator Birmingham's process to establish the technical advisory panel by Monday.

[REDACTED] s22

Helen

Helen Wilson | Assistant Secretary

Infrastructure, Climate and Energy Branch

Industry, Infrastructure & Environment Division | Department of the Prime Minister and Cabinet

p. [REDACTED] s22 m. [REDACTED] s22 | f. [REDACTED] s22

e. [REDACTED] s22

PO Box 6500 CANBERRA ACT 2600

*Please note I do not work Fridays. Please contact [REDACTED] s22

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Terms of Reference for 2015 UNFCCC Taskforce

s22



Taskforce responsibilities would include:

s22



- due diligence to ensure on Australia's climate and emissions data; are the best possible, including the Bureau of Meteorology's Australian temperature dataset and other related data; and

s22



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From: Hazlehurst, David [REDACTED] s22
Sent: Monday, November 10, 2014 03:32 PM AUS Eastern Standard Time
To: Parker, David
Cc: Gruen, David; Wilson, Helen; Taylor, Marie
Subject: RE: Quick ACORN-SAT assessment draft terms of reference [SEC=UNCLASSIFIED]

UNCLASSIFIED

Hi David

Thanks for sending these through.

Two thoughts from us:

- We had thought the 'quick' assessment was to be commissioned by the Parliamentary Secretary rather than the BOM itself, but the ToRs start with 'The BOM is seeking ...' (?)

[REDACTED] s22

Perhaps we can discuss.

Thanks

David

From: Parker, David [REDACTED] s22
Sent: Thursday, 6 November 2014 3:20 PM
To: Hazlehurst, David
Subject: FW: Quick ACORN-SAT assessment draft terms of reference [SEC=UNCLASSIFIED]

David

As discussed. Here is a cut of terms of reference. Apparently the Parliamentary Secretary is going to talk to PMO today re process and name.

Regards
David

From: Vicki Middleton [REDACTED] s22
Sent: Thursday, 30 October 2014 9:03 AM
To: Parker, David
Cc: [REDACTED] s22
Subject: Quick ACORN-SAT assessment draft terms of reference [SEC=UNCLASSIFIED]

Hi David

As discussed earlier in the week – attached are a draft terms of reference for the "quick" assessment ahead of the advisory forum.

[REDACTED] s47C and 47F

Let me know what else you need from me?

Cheers
Vicki

Vicki Middleton | Deputy Director (Corporate Services Division) / Chief Operating Officer



Australian Government

Bureau of Meteorology

Bureau of Meteorology
GPO Box 1289 Melbourne VIC 3001
Level 6, 700 Collins Street, Docklands VIC 3008

s22

www.bom.gov.au

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Terms of Reference – Australia's Climate Record Fact Check

The Bureau of Meteorology is seeking an Independent assessment of the status of its Australian Climate Observations Reference Network Surface Air Temperature (ACORN SAT) data-set. The assessment will deliver a plain English assessment of the transparency, materiality of variations in climate data and the quality and comprehensiveness of the 2011 independent review of ACORN SAT. The assessments will be presented as fact sheets and will include:

1. Transparency and public availability of the ACORN SAT information including:

- Raw and adjusted data;
- documentation of data methods;
- Computer code;
- Adjustments ;
- Inputs and outputs of peer review; and
- Benchmarking of the BOM against other comparable international agencies

2. Quality and Independence of the 2011 review of ACORN SAT data and methods including:

- Panel members
- Extent of review
- Rigour of analysis
- Key findings
- Benchmarking of the BOM against other comparable international agencies
- Public availability of relevant information on the inputs and outcomes of the review.

3. Materiality of claims about Australia's climate record, in particular:

- Compared to raw (unadjusted) data, how does homogenisation materially affect the overall climate trend for Australia?
- Compared to other available data sets how do the trends indicated by ACORN-SAT compare?
- How does BOMs curation methods compare to other international curation methods?
- Fact check of the 5 most common claims of critics of the BOMs management of Australia's climate record.

The Department of the Environment will appoint a suitably qualified individual, supported as required by an independent technical expert.

Background:

The Bureau of Meteorology gathers and maintains the national climate record for Australia. A sub-set of the national record is the Australian Climate Observations Reference Network Surface Air Temperature data-set. This includes long-term, high-quality, homogenised data for 112 stations distributed across Australia. The Bureau uses this data-set (amongst others) to report on changes in Australia's climate.

In August 2011, a panel of world-leading experts convened in Melbourne to examine the methods used to analyse the Bureau's temperature data. This entailed submissions and presentations from the scientists developing ACORN-SAT, as well as a review panel examination of the Bureau's observations practices, station selection methodology, data homogenisation, data analysis methods and communication.

After reviewing all of the processes the Bureau employs to prepare and maintain ACORN-SAT the panel was satisfied, overall, with the methodologies used by the Bureau. It ranked the Bureau's procedures and data analysis as amongst the best in the world.

The panel made 31 recommendations regarding the future management of ACORN-SAT. One of those was to establish a Technical Advisory Group or Forum to review progress on the development and operation of the ACORN-SAT data-set:

Review Recommendation E4:

A Technical Advisory Group should be established to meet approximately annually, to review progress on the development and operation of the ACORN-SAT data-set. The Group should comprise respected external scientists and statisticians, as well as representatives of data users, stakeholders with relevant experience in regional Australia, and representatives from other relevant functional areas of the Bureau. An alternative would be to establish a by-invitation annual technical advisory forum involving respected external scientists, statisticians and stakeholders to provide an opportunity for external comment on the further development of the ACORN-SAT system.

The Bureau agreed with the recommendation and undertook to establish a Technical Advisory Forum, to meet every two years:

Bureau response:

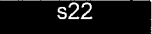
Agreed. The Bureau agrees that there would be value in enhancing the level of technical dialogue around the ACORN-SAT data-set and methods. The Bureau will hold a technical workshop every two years, starting in March 2014 (two years after the public release of the ACORN-SAT data-set) to review the state of the science and to identify possible improvements to the ACORN-SAT database and analysis methods. The Bureau will ensure that a broad range of experts from outside the agency is inducted into the workshop process.

Technical Advisory Forum

Arrangements are currently being implemented to appoint independent, suitably qualified, individuals to participate in the forum. Nominations are being sought from Australia's Chief Scientist, The Australian Bureau of Statistics, the Australian Academy of Sciences and the Australian Academy of Technological Sciences and Engineering. The forum will be held in early 2015.

s22



From: Gruen, David
Sent: Monday, 10 November 2014 5:47 PM
To: Wilson, Helen; Hazlehurst, David
Cc: Taylor, Marie;  s22
Subject: RE: Quick ACORN-SAT assessment draft terms of reference [DLM=For-Official-Use-Only]


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Helen

s22



David

From: Wilson, Helen
Sent: Monday, 10 November 2014 5:35 PM
To: Gruen, David; Hazlehurst, David
Cc: Taylor, Marie;  s22
Subject: RE: Quick ACORN-SAT assessment draft terms of reference [DLM=For-Official-Use-Only]

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David,

s22



thanks Helen

s47C



From: Gruen, David
Sent: Monday, 10 November 2014 4:40 PM
To: Wilson, Helen; Hazlehurst, David
Cc: Taylor, Marie; [REDACTED] s22
Subject: RE: Quick ACORN-SAT assessment draft terms of reference [DLM=For-Official-Use-Only]

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Helen

[REDACTED] s22

David G

From: Wilson, Helen
Sent: Monday, 10 November 2014 4:35 PM
To: Hazlehurst, David
Cc: Taylor, Marie; Gruen, David; [REDACTED] s22
Subject: RE: Quick ACORN-SAT assessment draft terms of reference [DLM=For-Official-Use-Only]

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Hi David Hz,

Just to add, we have a brief drafted for the PM ready to go once we receive Minister Hunts reply on the ToR for the UNFCCC taskforce (Bishop and Macfarlane have already replied).

As you know we were recommending the PM agree: the amended ToR's; [REDACTED] s22

[REDACTED] s22

thanks Helen

From: Hazlehurst, David
Sent: Monday, 10 November 2014 3:40 PM
To: [REDACTED] s22
Cc: Wilson, Helen; Taylor, Marie; Gruen, David
Subject: FW: Quick ACORN-SAT assessment draft terms of reference [SEC=UNCLASSIFIED]

UNCLASSIFIED

s22

We got the attached draft ToR through from Environment late last week. As discussed, the plan here is, ahead of setting up the ongoing panel, to have a quick independent assessment of the most criticisms of the BOM's ACORN SAT data set.

s22 - you mentioned the Parliamentary Secretary may have spoken to you briefly about this on Friday. Not sure if he's also passed these ToRs on.

I've provided the following feedback to Environment (David Parker, the relevant Deputy)...

'Two thoughts from us:

- We had thought the 'quick' assessment was to be commissioned by the Parliamentary Secretary rather than the BOM itself, but the ToRs start with 'The BOM is seeking ...'(?)

s22

Obviously we're running out of time to get this done this year. I wonder whether it might be quickest for you to engage directly back with the Parliamentary Secretary and/or the Minister, given that the Parl Sec has now contacted you directly.

Very happy to discuss.

David

s22

From: Hazlehurst, David
Sent: Monday, 3 November 2014 9:50 PM
To: 'Parker, David'
Subject: RE: [REDACTED] s22 [SEC=UNCLASSIFIED]

thanks David. completely understand the distractions of last week.

would be great to get your input on the two matters we discussed (the ToR and the proposed approach to early assessment of the recent criticisms of BOM) as soon as possible so we can engage the PMO.

cheers

David

s22

s22



-----Original Message-----

From: Hazlehurst, David

Sent: Thursday, October 23, 2014 04:21 PM AUS Eastern Standard Time

To: 'Parker, David (Protected)'; Gruen, David

Cc: Wilson, Helen; de Brouwer, Gordon (Protected)

Subject: RE: Draft Minister Reply - Hunt 2015 UNFCCC [SEC=PROTECTED]

PROTECTED

Sounds great. Thanks David.

From: Parker, David (Protected)

s22

Sent: Thursday, 23 October 2014 4:23 PM

To: Hazlehurst, David; Gruen, David

Cc: Wilson, Helen; de Brouwer, Gordon (Protected)

Subject: RE: Draft Minister Reply - Hunt 2015 UNFCCC [SEC=PROTECTED]

David

I am working up a couple of options in the quick pre-review space, in addition to the proposal to get the panel proper together before the end of the year.

Will get back soon

Regards

David

From: Hazlehurst, David

s22

Sent: Thursday, 23 October 2014 2:56 PM

To: Parker, David (Protected); Gruen, David

Cc: Wilson, Helen; de Brouwer, Gordon (Protected)

Subject: RE: Draft Minister Reply - Hunt 2015 UNFCCC [SEC=PROTECTED]

PROTECTED

Hi David

Thanks. The approach on, and nominees for, the membership looks good.

s47C



s47C

Will give you a ring to discuss.

Cheers

David

From: Parker, David (Protected) [REDACTED] s22
Sent: Tuesday, 21 October 2014 7:54 PM
To: Gruen, David; Hazlehurst, David
Subject: RE: Draft Minister Reply - Hunt 2015 UNFCCC [SEC=PROTECTED]

David G [REDACTED] s47C

[REDACTED] s47C

Could you send me the latest ToR for the UNFCCC taskforce.

Cheers

David P

From: Gruen, David [REDACTED] s22
Sent: Tuesday, 21 October 2014 11:02 AM
To: Parker, David (Protected); Hazlehurst, David
Subject: RE: Draft Minister Reply - Hunt 2015 UNFCCC [SEC=PROTECTED]

PROTECTED

Thx David P

[REDACTED] s47C

Thx
David G

From: Parker, David (Protected) [REDACTED] s22
Sent: Tuesday, 21 October 2014 10:35 AM
To: Hazlehurst, David; Gruen, David
Subject: RE: Draft Minister Reply - Hunt 2015 UNFCCC [SEC=PROTECTED]

David,

[REDACTED] s47C

s47C

Cheers
David

From: Hazlehurst, David [s22]
Sent: Monday, 20 October 2014 1:35 PM
To: Gruen, David; Parker, David (Protected)
Subject: RE: Draft Minister Reply - Hunt 2015 UNFCCC [SEC=PROTECTED]

PROTECTED

Hi David

Just wondering how you're going with this. (Apologies if there's been another email I've missed).

We're hoping to go back to the PMO in the next few days to test the revised ToRs, but need to have a firm position on BOM.

Perhaps we can discuss at estimates (expect we'll be there around 2.30pm).

Cheers

David

From: Gruen, David
Sent: Monday, 13 October 2014 10:28 AM
To: Parker, David (Protected); Wilson, Helen; Hazlehurst, David; Taylor, Marie
Subject: RE: Draft Minister Reply - Hunt 2015 UNFCCC [SEC=PROTECTED]

PROTECTED

Thanks David. This came up in the first of my catch-ups with Gordon last week:

- My Parliamentary Secretary has brought forward implementation of a recommendation from the previous quality assurance exercise to establish strengthened governance oversight of the Bureau's ongoing work in this area. This will involve a panel of eminent persons, particularly with statistical skills, which will meet annually to review the Bureau's work. (It is important to emphasise that this is primarily a matter of meteorology, statistics and data assurance – not a matter of climate science.) This will be a public and ongoing process. Should you have views to strengthen this process we would welcome them.

s47C

David G (there are too many David's in this process!!)

From: Parker, David (Protected) [s22]
Sent: Friday, 10 October 2014 6:05 PM

To: Wilson, Helen; Hazlehurst, David; Gruen, David; Taylor, Marie
Subject: Draft Minister Reply - Hunt 2015 UNFCCC [SEC=PROTECTED]

Colleagues

As foreshadowed, here is a copy of the draft reply re the taskforce – not yet sent I understand

Regards
David

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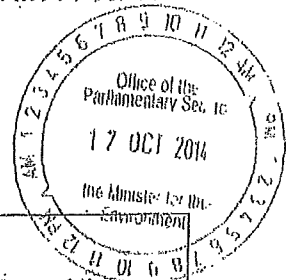
BUREAU OF METEOROLOGY

PDR: MS14-002685

To: Parliamentary Secretary (cc Minister) (for decision)

MEMBERSHIP OF ACORN-SAT TECHNICAL ADVISORY FORUM

Timing: 17 October 2014, to commence process.



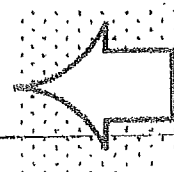
Recommendation:

1. [REDACTED] s47C
2. [REDACTED] s47C
3. [REDACTED]

Parliamentary Secretary

Date: 17/10/14

Comments:



SIGN
HERE

Key Points:

1. This is a supplementary brief to MS14-002380, which advised of progress with implementing recommendations from the 2011 Australian Climate Observations Reference Network - Surface Air Temperature (ACORN-SAT) expert review.
2. One of the recommendations of the international peer review of ACORN-SAT's processes and methodologies undertaken in 2011 was that "A Technical Advisory Group should be established to meet approximately annually, to review progress on the development and operation of the ACORN-SAT data-set. The Group should comprise respected external scientists and statisticians, as well as representatives of data users, stakeholders with relevant experience in regional Australia, and representatives from other relevant functional areas of the Bureau. An alternative would be to establish a by-invitation annual technical advisory forum involving respected external scientists, statisticians and stakeholders to provide an opportunity for external comment on the further development of the ACORN-SAT system".
3. MS14-002380 contained draft Terms of Reference for the establishment of a Technical Advisory Forum for the ACORN-SAT, and advised of plans to nominate experts to participate in the Forum.

4. [REDACTED] s47C

5. [REDACTED] s22
[REDACTED] s22 s47C s47C

6. The draft Terms of Reference for the forum have been updated to reflect your feedback at Attachment B.

7. [REDACTED] s47C

[REDACTED] s22

Dr Rob Vertessy
Director of Meteorology and CEO
Bureau of Meteorology
Ph: [REDACTED] s22
Mob: [REDACTED] s22
16 October 2014

Mr Graham Hawke
Deputy Director Environment and
Research
Bureau of Meteorology
Ph: [REDACTED] s22
Mob: [REDACTED] s22

ATTACHMENTS

- A. [REDACTED] s47C
- B. Update draft Terms of Reference
- C. [REDACTED] s47C

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Attachment B

**Bureau of Meteorology
Technical Advisory Forum for the Australian Climate Observations
Reference Network Surface Air Temperature data-set (ACORN-SAT)**

Background

The Bureau of Meteorology gathers and maintains the national climate record for Australia. A sub-set of the national record is the Australian Climate Observations Reference Network Surface Air Temperature data-set. This includes long-term, high-quality, homogenised data for 112 stations distributed across Australia. The Bureau uses this data-set (amongst others) to report on changes in Australia's climate.

In August 2011, a panel of world-leading experts convened in Melbourne to examine the methods used to analyse the Bureau's temperature data. This entailed submissions and presentations from the scientists developing ACORN-SAT, as well as a review panel examination of the Bureau's observations practices, station selection methodology, data homogenisation, data analysis methods and communication.

After reviewing all of the processes the Bureau employs to prepare and maintain ACORN-SAT the panel was satisfied, overall, with the methodologies used by the Bureau. It ranked the Bureau's procedures and data analysis as amongst the best in the world.

The panel made 31 recommendations regarding the future management of ACORN-SAT. One of those was to establish a Technical Advisory Group or Forum to review progress on the development and operation of the ACORN-SAT data-set:

Review Recommendation E4:

A Technical Advisory Group should be established to meet approximately annually, to review progress on the development and operation of the ACORN-SAT data-set. The Group should comprise respected external scientists and statisticians, as well as representatives of data users, stakeholders with relevant experience in regional Australia, and representatives from other relevant functional areas of the Bureau. An alternative would be to establish a by-invitation annual technical advisory forum involving respected external scientists, statisticians and stakeholders to provide an opportunity for external comment on the further development of the ACORN-SAT system.

The Bureau agreed with the recommendation and undertook to establish a Technical Advisory Forum, to meet every two years:

Bureau response:

Agreed. The Bureau agrees that there would be value in enhancing the level of technical dialogue around the ACORN-SAT data-set and methods. The Bureau will hold a technical workshop every two years, starting in March 2014 (two years after the public release of the ACORN-SAT data-set) to

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review the state of the science and to identify possible improvements to the ACORN-SAT database and analysis methods. The Bureau will ensure that a broad range of experts from outside the agency is inducted into the workshop process.

Forum Draft Terms of Reference

Provide comment on the further development of the ACORN-SAT data-set and methods, particularly:

1. the list of stations included
2. the climate data homogenisation methods used
3. the trend analysis methods used
4. the communication methods used
5. comparisons with other leading climate centres

The above Terms of Reference will be finalised prior to the first meeting of the Forum.

Forum membership

Nominations will be sought from the Chief Scientist, the Australian Statistician, the Australian Academy of Science and the Australian Academy of Technological Sciences.

The Bureau of Meteorology will provide the secretariat to the forum.

Forum format

Forums will run over one day, every two years. The morning will be devoted to ACORN-SAT status updates, provided by Bureau scientists. The afternoon will be devoted to discussion, with forum members provided the opportunity to comment on the ACORN-SAT data-set and methods and related activity in Australia and abroad.

Forum pre-reading will be made available to members a fortnight prior to meeting. A member-approved record of each Forum will be made available on the Bureau web site.

Subject to availability of members, the first Forum will be held in early 2015.

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s22

From: Wilson, Helen
Sent: Thursday, 23 October 2014 2:57 PM
To: s22
Cc:
Subject: FW: Draft Minister Reply - Hunt 2015 UNFCCC [SEC=PROTECTED]

Follow Up Flag: Follow up
Flag Status: Completed

PROTECTED

s22

see below for background on the BOM issue for the brief to the PM – will keep you both posted

thanks Helen

From: Gruen, David
Sent: Thursday, 23 October 2014 2:56 PM
To: Hazlehurst, David
Cc: Wilson, Helen
Subject: RE: Draft Minister Reply - Hunt 2015 UNFCCC [SEC=PROTECTED]

PROTECTED

Thx David.

Hopefully we'll get action pretty smartly.

David

From: Hazlehurst, David
Sent: Thursday, 23 October 2014 2:54 PM
To: 'Parker, David (Protected)'; Gruen, David
Cc: Wilson, Helen; de Brouwer, Gordon (Protected) s22
Subject: RE: Draft Minister Reply - Hunt 2015 UNFCCC [SEC=PROTECTED]

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Hi David

Thanks. The approach on, and nominees for, the membership looks good.

s47C

s47C

Will give you a ring to discuss.

Cheers

David

From: Parker, David (Protected) [REDACTED] s22
Sent: Tuesday, 21 October 2014 7:54 PM
To: Gruen, David; Hazlehurst, David
Subject: RE: Draft Minister Reply - Hunt 2015 UNFCCC [SEC=PROTECTED]

David G - [REDACTED] s47C
[REDACTED] s47C

Could you send me the latest ToR for the UNFCCC taskforce.

Cheers
David P

From: Gruen, David [REDACTED] s22
Sent: Tuesday, 21 October 2014 11:02 AM
To: Parker, David (Protected); Hazlehurst, David
Subject: RE: Draft Minister Reply - Hunt 2015 UNFCCC [SEC=PROTECTED]

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Thx David P

[REDACTED] s47C

Thx
David G

From: Parker, David (Protected) [REDACTED] s22
Sent: Tuesday, 21 October 2014 10:35 AM
To: Hazlehurst, David; Gruen, David
Subject: RE: Draft Minister Reply - Hunt 2015 UNFCCC [SEC=PROTECTED]

David,

[REDACTED] s47C

Cheers
David

From: Hazlehurst, David [REDACTED] s22
Sent: Monday, 20 October 2014 1:35 PM
To: Gruen, David; Parker, David (Protected)
Subject: RE: Draft Minister Reply - Hunt 2015 UNFCCC [SEC=PROTECTED]

PROTECTED

Hi David

Just wondering how you're going with this. (Apologies if there's been another email I've missed).

We're hoping to go back to the PMO in the next few days to test the revised ToRs, but need to have a firm position on BOM.

Perhaps we can discuss at estimates (expect we'll be there around 2.30pm).

Cheers

David

From: Gruen, David
Sent: Monday, 13 October 2014 10:28 AM
To: Parker, David (Protected); Wilson, Helen; Hazlehurst, David; Taylor, Marie
Subject: RE: Draft Minister Reply - Hunt 2015 UNFCCC [SEC=PROTECTED]

PROTECTED

Thanks David. This came up in the first of my catch-ups with Gordon last week:

- My Parliamentary Secretary has brought forward implementation of a recommendation from the previous quality assurance exercise to establish strengthened governance oversight of the Bureau's ongoing work in this area. This will involve a panel of eminent persons, particularly with statistical skills, which will meet annually to review the Bureau's work. (It is important to emphasise that this is primarily a matter of meteorology, statistics and data assurance – not a matter of climate science.) This will be a public and ongoing process. Should you have views to strengthen this process we would welcome them.

s47C



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Sent: Friday, 10 October 2014 6:05 PM
To: Wilson, Helen; Hazlehurst, David; Gruen, David; Taylor, Marie
Subject: Draft Minister Reply - Hunt 2015 UNFCCC [SEC=PROTECTED]

Colleagues

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Regards
David

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s22

From: Hazlehurst, David
Sent: Tuesday, 21 October 2014 12:44 PM
To: Gruen, David; Parker, David (Protected)
Subject: RE: Draft Minister Reply - Hunt 2015 UNFCCC [SEC=PROTECTED]

PROTECTED

Thanks David. Extra question from me.

s47C

We really need something on this point (very soon) to test with the PMO. Otherwise we're likely to be back where we started.

Happy to discuss

Cheers

David

From: Gruen, David
Sent: Tuesday, 21 October 2014 11:00 AM
To: Parker, David (Protected); Hazlehurst, David
Subject: RE: Draft Minister Reply - Hunt 2015 UNFCCC [SEC=PROTECTED]

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Thx David P

s47C

Thx
David G

From: Parker, David (Protected)
Sent: Tuesday, 21 October 2014 10:35 AM
To: Hazlehurst, David; Gruen, David
Subject: RE: Draft Minister Reply - Hunt 2015 UNFCCC [SEC=PROTECTED]

David,

s47C

s47C

Cheers
David

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Subject: RE: Draft Minister Reply - Hunt 2015 UNFCCC [SEC=PROTECTED]

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CABINET-IN-CONFIDENCE

Role of the Taskforce vis-a-vis DFAT and the Department of the Environment

s22



CABINET-IN-CONFIDENCE

Independent Experts

The taskforce will engage experts as required to undertake discrete pieces of work, for example the due diligence on the Bureau of Meteorology's temperature dataset.

DRAFT

PROTECTED Sensitive Cabinet

Ref: B14/2729

Routine/Low Complexity

DEPARTMENT OF THE PRIME MINISTER AND CABINET

PM&C
Secretary
Ms Cross
Dr Gruen
Dr McCarthy
Mr Hazlehurst
Mr Fox
Ms Taylor
Ms Wood
Ms Tsirbas
Ms Wilson

PMO
Chief of Staff
Cabinet
Secretary
s22

File

To: Prime Minister (for signature)

s22

Recommendations - that you:

1. Note that, following discussion with your office, we will establish a taskforce in PM&C to ensure you, key Ministers and then the Cabinet, have the best available information and advice in the lead up to the UNFCCC Paris Conference in December 2015.
2. Sign the letters to the Ministers for Foreign Affairs, Industry and the Environment (Attachments A to C respectively) informing them of the taskforce and asking for their input in finalising the draft terms of reference at Attachment D.

Noted

Signed / Not Signed

TONY ABBOTT

Date:

s22

Comments:

24/8/12

Key Points:

s22

3. Draft terms of reference for the taskforce are attached and include:

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s22

- c. a quality assurance review of the Bureau of Meteorology's Australian temperature dataset; and

s22

Background:

s22

7. In recent articles in the Australian, the Bureau of Meteorology was accused of altering its temperature data records to exaggerate estimates of global warming. The way the Bureau manages its climate records is recognised internationally as among the best in the world. It uses a scientific approach that has been peer-reviewed. The approach is transparent and available on the Bureau's website. Nevertheless, the public need confidence information on Australia's, and the world's, climate is reliable and based on the best available science.

s22

I J Watt
Secretary
12 September 2014

Policy Officer: Helen Wilson
Phone no: s22
Consultation: PMO

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PROTECTED Sensitive Cabinet

ATTACHMENTS

ATTACHMENT A

ATTACHMENT B

ATTACHMENT C

ATTACHMENT D Terms of Reference

s22

s22

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Terms of Reference for 2015 UNFCCC Taskforce

s22



Taskforce responsibilities would include:

- due diligence to ensure Australia's climate and emissions data are the best possible, including the Bureau of Meteorology's Australian temperature dataset and other related data; and

s22



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Terms of Reference for 2015 UNFCCC Taskforce

s22



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s22



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PROTECTED

Terms of Reference for 2015 UNFCCC Taskforce

s22



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s22



PROTECTED

s22

From: Pearce, Kelly
Sent: Wednesday, 3 September 2014 6:19 PM
To: s22
Cc:
Subject: FW: BOM and homogenising weather data [DLM=For-Official-Use-Only]

UNCLASSIFIED For Official Use Only

Hi s22

In addition to the article I sent you (which is a simpler explanation than the BOM one), below is the media release put out by the Bureau of Meteorology, setting out the facts around its climate records and how they are managed (it can be found at http://www.bom.gov.au/announcements/media_releases/ho/20140827.shtml).

We understand Senator Birmingham's office has chosen not to buy into this and has not been responding to media enquiries on this issue and all requests for information are being directed to the Bureau. The media has started to die down, although The Australian is still seeking some information from the Bureau and there is a possibility the ABC's Media Watch may do a segment on how the issue has been reported. Some of the questioning may be about correcting data at specific monitoring sites, such as Rutherglen, and a claim that this was not according to BOMs normal practice, which BOM disputes.

Below are some short talking points you could use if required:

s47C

Please let me know if you need anything further.

Regards,
 Kelly

Bureau of Meteorology Media Statement - Climate Records

Contrary to assertions in some parts of the media, the Bureau is not altering climate records to exaggerate estimates of global warming.

Our role is to make meteorological measurements, and to curate, analyse and communicate the data for use in decision making and to support public understanding.

To undertake these tasks, the Bureau employs highly skilled technicians and scientists and invests in high quality monitoring equipment.

The Bureau measures temperature at nearly 800 sites across Australia, chiefly for the purpose of weather forecasting. The Australian Climate Observations Reference Network - Surface Air Temperature (ACORN-SAT) is a subset of this network comprising 112 locations that are used for climate analysis. The ACORN-SAT stations have been chosen to maximise both length of record and network coverage across the continent. For several years, all of this data has been made publicly available on the Bureau's web site.

Temperature records are influenced by a range of factors such as changes to site surrounds (eg. trees casting shade or influencing wind), measurement methods and the relocation of stations (eg. from a coastal to more inland location). Such changes introduce biases into the climate record that need to be adjusted for prior to analysis.

Adjusting for these biases, a process known as homogenisation, is carried out by meteorological authorities around the world as best practice, to ensure that climate data is consistent through time.

At the Bureau's request, our climate data management practices were subject to a rigorous independent peer-review in 2012. A panel of international experts found the Bureau's data and methods were amongst the best in the world.

The Bureau's submissions to the review were published on the Bureau's website, as were the findings of the review panel.

The Bureau's methods have also been published in peer-reviewed scientific journals.

Both the raw and adjusted ACORN-SAT data and the larger unadjusted national data set all indicate that Australian air temperatures have warmed over the last century. This finding is consistent with observed warming in the oceans surrounding Australia. These findings are also consistent with those of other leading international meteorological authorities, such as NOAA and NASA in the United States and the UK MetOffice. The high degree of similarity is demonstrated below in *Figure 1*.

The Bureau strives to ensure that its data sets and analysis methods are as robust as possible. For this reason we place considerable emphasis on quality assurance, transparency and communication. The Bureau welcomes critical analysis of the Australian climate record by others through rigorous scientific peer review processes.

For further information: www.bom.gov.au/climate/change/acorn-sat/

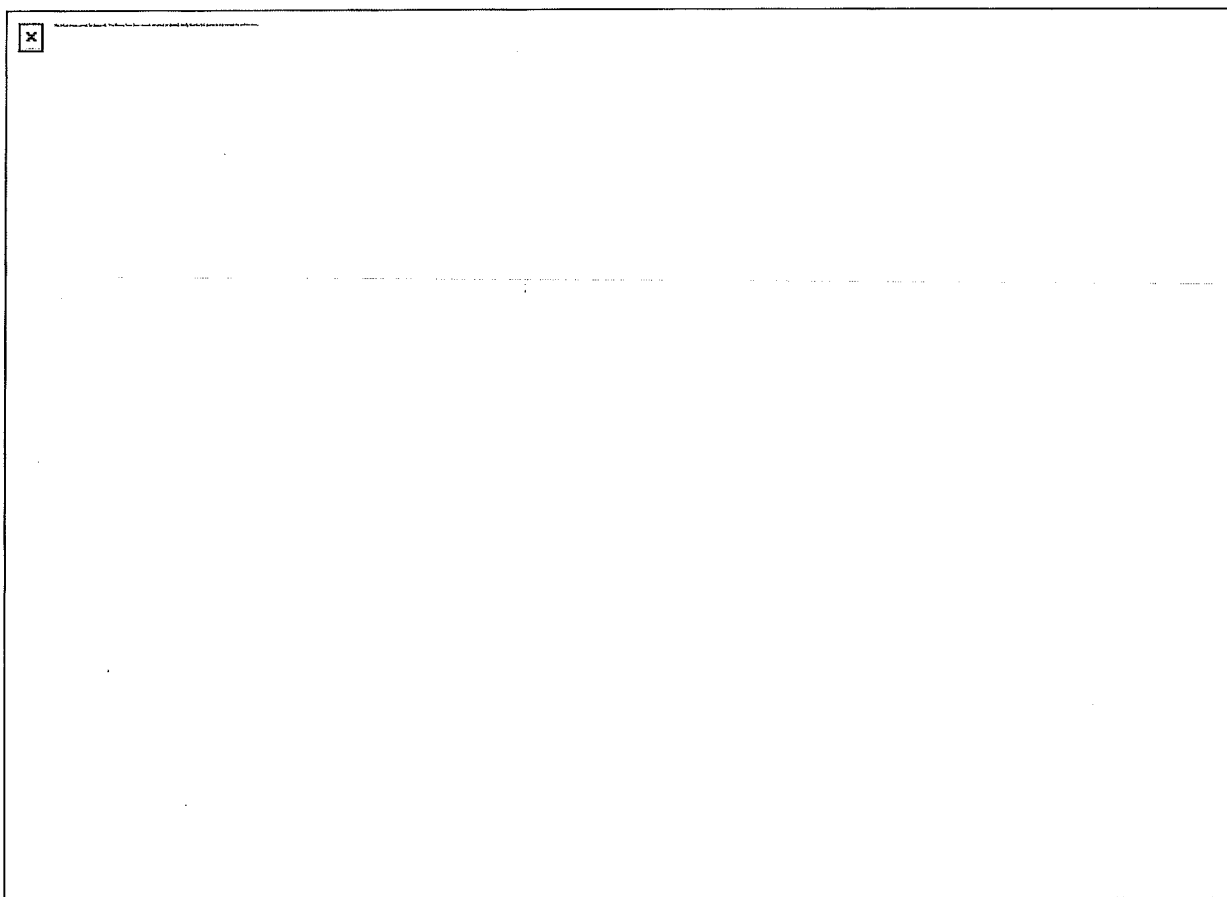


Figure 1: Comparison of the time series (1911-2010) using analysis grid sets from 18 different sources, including from adjusted and unadjusted data and from analyses from international authorities. All anomaly values in degrees C, calculated as a difference between the annual values and the respective with respect to 1981-2010 means. Satellite time series of the lower atmosphere are plotted for 1979-2010. Source: CAWCR Technical Report No. 050, Page 21, Figure 11.

From: Pearce, Kelly
Sent: Wednesday, 3 September 2014 10:33 AM
To: s22

Cc: s22

Subject: BOM and homogenising weather data [SEC=UNCLASSIFIED]

UNCLASSIFIED

s22

As discussed, short article from ARC Centre on Climate Science. We will get more info for you today.

Regards
Kelly

Kelly Pearce

acting First Assistant Secretary

Industry, Infrastructure & Environment Division |

Department of the Prime Minister and Cabinet

p. s22 m. s22 |

e. s22 | www.dpmc.gov.au

PO Box 6500 CANBERRA ACT 4001

<http://theconversation.com/no-the-bureau-of-meteorology-is-not-fiddling-its-weather-data-31009>

No, the Bureau of Meteorology is not fiddling its weather data

ver the past week or so, the Bureau of Meteorology has stood accused of fudging its temperature data records to emphasise warming, in a series of articles in The Australian. The accusation hinges on the...

Authors

1.



Lisa Alexander

Chief Investigator ARC Centre of Excellence for Climate System Science and Senior Lecturer
Climate Change Research Centre at UNSW Australia

2.



Andy Pitman

Director of the ARC Centre of Excellence for Climate System Science at UNSW Australia

Disclosure Statement

Lisa Alexander receives funding from the Australian Research Council.

Andy Pitman receives funding from the Australian Research Council.

UNSW Australia does not contribute to the cost of running The Conversation. [Find out more.](#)

Over the past week or so, the Bureau of Meteorology has stood accused of fudging its temperature data records to emphasise warming, in a series of articles in The Australian. The accusation hinges on the method that the Bureau uses to remove non-climate-related changes in its weather station data, referred to as “data homogenisation”.

If true, this would be very serious because these data sets underpin major climate research projects, including deducing how much Australia is warming. But it's not true.

Crunching the numbers

Data homogenisation techniques are used to varying degrees by many national weather agencies and climate researchers around the world. Although the World Meteorological Organization has guidelines for data homogenisation, the methods used vary from country to country, and in some cases no data homogenisation is applied.

Homogenisation can be necessary for a range of reasons: sometimes stations move, instruments or reporting practices change, or surrounding trees or buildings at a site are altered. Changes can be sudden or gradual. These can all introduce artificial “jumps” (in either direction) in the resulting temperature records. If left uncorrected, these artifacts could leave the data appearing to show spurious warming or cooling trends.

There are many methods that can be used to detect these “inhomogeneities”, and there are other methods (although much harder to implement) that can adjust the data to make sure it is consistent through time. The Bureau uses such a technique to create its Australian Climate Observations Reference Network – Surface Air Temperature (ACORN-SAT) data set. These data are then used to monitor climate variability and change in Australia, to provide input for the State of the Climate reports, and for other purposes too.

In a statement about its climate records, the Bureau said:

The Bureau measures temperature at nearly 800 sites across Australia, chiefly for the purpose of weather forecasting. The ACORN-SAT is a subset of this network comprising 112 locations that are used for climate analysis. The ACORN-SAT stations have been chosen to maximise both length of record and network coverage across the continent. For several years, all of this data has been made publicly available on the Bureau's web site.

Complex methods

Australia has played a leading role in developing this type of complex data-adjustment technique. In 2010, the Bureau's Blair Trewin wrote a comprehensive article on the types of inhomogeneities that are found in land temperature records. As a result the International Surface Temperature Initiative (ISTI) has set up a working group to compare homogenisation methods.

Some of our own research at the ARC Centre of Excellence for Climate System Science has tried, with the help of international colleagues, to assess the impacts that different choices can make when using these different homogenisation methods. Much of our work focuses on temperature extremes. We have studied

the impacts on large-scale extreme temperature data of changing station networks, different statistical techniques, homogenised versus non-homogenised data, and other uncertainties that might arise.

Our data on extreme temperature trends show that the warming trend across the whole of Australia looks bigger when you *don't* homogenise the data than when you do. For example, the adjusted data set (the lower image below) shows a cooling trend over parts of northwest Australia, which isn't seen in the raw data.

s22

From: Pearce, Kelly
Sent: Friday, 21 February 2014 4:38 PM
To: s22
Cc: s22 Taylor, Marie
Subject: BOM and hourly updates [SEC=PROTECTED, DLM=Sensitive:Cabinet]
Attachments: Plain english options table 160214.docx

Hi s22

In response to your questions, my colleague at BOM has supplied the following. Also attached is a table about what the different options for the supercomputer can do, and we are also getting examples of what this means in real peoples terms.

My simple take on this was:

- It takes 2 hours and 40 minutes to run a complete cyclone forecast using the current technology.
- BOM can provide hourly observations in text form, but not on a map (eg how strong the winds are, how much rain has been recorded, where it has physically been observed to be) – and the Bureau did so in response to TC Dylan,
- Observations are not “forecasts” of where it is going, how fast it is travelling and how strong the winds will be and cannot be relied on by people to predict how to respond to a cyclone.

Regards
Kelly

Why can't you currently do 1 hourly updates to Tropical Cyclone Forecasts ?

The Bureau's current supercomputing capability allows the specific tropical cyclone forecasts to be run twice a day, at 10 am and 10 pm without sacrificing other forecast services eg: the 1,400 local community forecasts produced each day and the forecasts for daily aviation and defence operations.

The tropical cyclone computer run provides real-time information on the cyclone's location, past and present, intensity, size and motion, and is used to forecast the tropical cyclone vortex which is then tracked as it approaches the coast. It takes approximately 2 hours and 20 minutes to complete this forecast in the current supercomputer. This forecast is then updated as warning on a 3 hourly basis with the latest observations and official issued through a process that is consistent with international practice and can withstand coronial inquest examination.

To provide hourly forecasts of equivalent standard requires a supercomputer larger than the Bureau current supercomputer.

In response to the request for hourly updates in response to TC Dylan the Bureau has been providing an updates of the latest observations in text form. These updates are not updated forecast warnings, they simply report the cyclones approximate position in relation to the 3 hourly forecast warning.

In practical terms, what protocols does the Bureau have in place to meet competing demands for severe weather forecasts eg: cyclones and bushfires concurrently ?

The first protocol is not to compromise the supercomputer output that is fundamental to aviation, maritime and defence operations as well as producing over 1,400 forecasts for local communities that inform everyday decision making to respond to individual severe weather events.

The Bureau has capability to service severe weather in addition to these fundamental forecast services, in a limited way.

The Bureau can currently provide forecasts up to 4 times per day for 3 separate events at a scale of 4kms. This means the Bureau provides a forecast that gives response agencies information about where to focus effort across a broad area (4kms). It cannot provide specific or frequently updated details about small scale weather features such as the location and timing of thunderstorm cells across suburban areas, localised wind changes in bushfire situations and the location of rainfall and topography leading for localised or flash flooding.

Emergency service agencies, through state crisis coordination arrangements provide guidance to the Bureau on their priorities for emergency response eg: Victoria will advise which bushfires they want the Bureau to focus effort on based on their local knowledge about population, infrastructure and assets at risk.

Where we cannot meet competing demands eg: If we had 3 jurisdictions demanding cyclone updates more frequently than current capacity the Bureau would prioritise forecasts and warning based on Tropical Cyclone intensity and proximity to coastal communities at risk. Such demands can still be accommodated with the provision of a limited number of spot fire forecasts eg: the maximum we have capability to currently provide in Victoria is 20 at any one time.

Please let me know if we can assist further

Cheers
Vicki

Vicki Middleton | Deputy Director (Corporate Services Division) / Chief Operating Officer



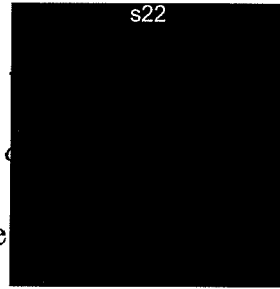
Australian Government
Bureau of Meteorology

Bureau of Meteorology
GPO Box 1289 Melbourne VIC 3001
Level 6, 700 Collins Street, Docklands VIC 3008
Tel: [REDACTED] s22
www.bom.gov.au



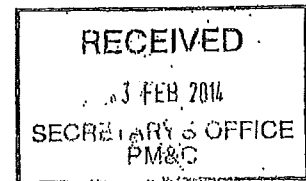
Auditor-General for Australia

Sensitive



3 February 2014

Dr Ian J Watt AO
Secretary
Department of the Prime Minister and Cabinet
One National Circuit
BARTON ACT 2600



Dear Dr Watt

The Australian National Audit Office has undertaken a performance audit in the Bureau of Meteorology titled *Administration of the Improving Water Information Program*. Pursuant to Senate Standing Order 166 relating to the presentation of documents when the Senate is not sitting, the audit report is scheduled to be presented to the President of the Senate on 5 February 2014.

A draft final copy of the report is enclosed for your information. As you will appreciate, the confidentiality of the report should be preserved pending the presentation of the report.

Copies of the report have also been forwarded to the Prime Minister, the Minister for the Environment, the Parliamentary Secretary to the Minister for the Environment, and the Director of Meteorology, who have been offered a briefing on the audit.

We would be happy to provide you with a briefing on the audit before the report is tabled or at some other convenient time. Our contact is [redacted] s22 Group Executive Director, on telephone number [redacted] s22

Yours sincerely

[redacted] s22

Ian McPhee

Enc

This document is provided in confidence and must not be copied or disseminated except on a strictly need to know basis. Unauthorised disclosure may be an offence against the *Auditor-General Act 1997*.

Sensitive

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Ref: C13/88048
Routine/Low Complexity

DEPARTMENT OF THE PRIME MINISTER AND CABINET

PM&C
Secretary
Ms Cross
Mr Hazlehurst
Ms Taylor
Ms Pearce
Mr Sloan
Ms Castellino
Ms Clarke
Ms Geddes
Ms Morton

To: Prime Minister (for signature)

QUEENSLAND COLLABORATION TO IMPROVE FLOOD WARNING ARRANGEMENTS IN QUEENSLAND

PMO
Ms Credlin
s22

File:

Recommendation(s) - that you:

1. sign the attached letter to the Premier of Queensland, the Hon Campbell Newman MP,

s22

s22

(Attachment A).

s22

Signed / Not Signed

20/1/15

TONY ABBOTT

Date:

Comments:

Key Points:

1. Premier Newman wrote to you on 2 December 2013 regarding the *Review of the Bureau of Meteorology's (BoM's) capacity to respond to future extreme weather and natural disaster events and to provide seasonal forecasting services* (the Munro Review) and in particular, recommendations relating to BoM's flood warning capacity and the allocation across jurisdictions of responsibility for flood management (Attachment B).
 - a. The Munro Review was commissioned by the former Government in 2011.
2. As Premier of a flood-prone state, Mr Newman is particularly concerned with recommendations relating to improving BoM's flood warning capacity by boosting hydrologists and upgrading flood monitoring systems (Priority 2) and agreeing allocations of responsibility to state and local government for flood management (Priority 4).
 - a. Priority 2 was agreed by the former Government. As part of the \$58.5 million package, provided in the 2012-13 Budget, funding was provided to enable BoM to gradually increase its numbers of frontline hydrologists to 23 by 2016-17, and to implement a next-generation flood monitoring and forecasting system from mid-2015.
 - b. Priority 4 is being addressed by a taskforce established under the Australia New Zealand Emergency Management Committee (under COAG). Queensland will have a representative on this group at a senior strategic operational level.
 - i. Premier Newman has provided a ministerial contact for this work (the Hon Andrew Cripps MP, Minister for Natural Resources and Mines).

3. BoM is actively reforming its flood management role and has advised us that it would be prepared to commence discussions with the Queensland government to explore the provision of flood monitoring services. These discussions have not yet commenced and consideration may need to be given to appropriate cost-recovery.
4. The draft response to Premier Newman thanks him for his cooperation in this area and refers his letter to the Minister for Justice, the Hon Michael Keenan MP, and the Parliamentary Secretary to the Minister for the Environment, Senator the Hon Simon Birmingham, as ministers with portfolio responsibility for this work and for appropriate action.

s22

Kelly Pearce
Assistant Secretary
Agriculture and Environment Branch
16 December 2013

Policy Officer: s22
Phone no: s22
Consultation: Fiscal; BOM; AGD; CSRB;
Crisis Management; Disaster Recovery

ATTACHMENTS

ATTACHMENT A DRAFT RESPONSE

ATTACHMENT B INCOMING CORRESPONDENCE



PRIME MINISTER

Reference: C13/88048

20 DEC 2013

The Hon Campbell Newman MP
Premier of Queensland
PO Box 15185
CITY EAST QLD 4002

Dear Premier

Thank you for your letter dated 2 December 2013 regarding the *Review of the Bureau of Meteorology's (BoM's) capacity to respond to future extreme weather and natural disaster events and to provide seasonal forecasting services* (the Munro Review) and collaboration to improve flood warning arrangements in Queensland.

I welcome your cooperation in this area which, I agree, is of particular significance for Queensland.

I have referred your letter to the Minister for Justice, the Hon Michael Keenan MP, and the Parliamentary Secretary to the Minister for the Environment, Senator the Hon Simon Birmingham, as ministers with portfolio responsibility for this work. I have asked them to make contact with Minister Cripps to explore taking this work forward.

Thank you for raising this matter with me. I have copied this letter to Minister Keenan and Senator Birmingham.

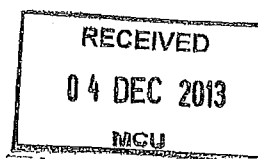
Yours sincerely

s22

TONY ABBOTT



Premier of Queensland



For reply please quote: LJP/CN - TF/13/26047 - DOC/13/209601

- 2 DEC 2013

The Honourable Tony Abbott MP
Prime Minister of Australia
Parliament House
CANBERRA ACT 2600

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100 George Street Brisbane
PO Box 15185 City East
Queensland 4002 Australia
Telephone +61 7 3224 4500
Facsimile +61 7 3221 3631
Email ThePremier@premier.qld.gov.au
Website www.thepremier.qld.gov.au

Dear Prime Minister *long*

I refer to the Australian Government's response to the review of the Bureau of Meteorology's (BoM) extreme weather capability (the Munro review) released by the former government and, in particular, improvements to BoM's flood warning capacity as detailed under Priority Actions 2 and 4.

Priority 2 recommends boosting BoM's flood warning capacity by increasing the number of frontline hydrologists and upgrading the flood monitoring system. Priority 4 recommends agreeing on a clear allocation of responsibilities to state and local government for flood management, with defined boundaries on BoM's role.

Queensland is Australia's most flood-prone state. Accounting for more than 510 deaths and over 15 300 house equivalent losses since 1900, flood is Queensland's most destructive natural hazard. Flood is also one of the most predictable natural hazards in Australia, and effective flood warning is critical to communities' resilience. However, the Queensland Government is concerned that arrangements for flood data collection from the flood warning gauge network are deficient, which negatively affects the provision of timely and accurate flood warnings to the community. The Queensland Government's view is that this is a high risk and unacceptable situation which needs to be resolved as a matter of urgency, without delay by undue bureaucratic process.

The current collaborative management model for flood data collection dates from 1988 and has never been formally accepted by any state or territory. The Munro review concluded that the collaborative arrangements were complex, inconsistent between states, and not founded on any formal agreement. The extent and frequency of recent flooding has proved the social and financial cost of flooding to communities and government is too great to continue with existing ambiguous arrangements for the gauge network.

In Queensland, more than 2100 flood-monitoring stations are currently distributed across all three tiers of government and the private sector. However, while service level agreements (SLAs) are being progressed, there are few agreed technical standards for the provision of data from these gauges for flood warning purposes.

The Queensland Government supports the Australian Government's acknowledgement that it is necessary to clarify the roles and responsibilities for the flood warning network in order to formalise and standardise arrangements for data collection from the flood warning gauge network. Queensland will participate fully in the Commonwealth-led taskforce being established under the auspices of the Council of Australian Governments to resolve these issues. However, the Queensland Government believes that BoM should expand and consolidate its flood management role, as recommended in the Munro review, and assume unambiguous responsibility for the flood warning network.

The Queensland Government has recently determined that the Department of Natural Resources and Mines will be responsible for overseeing policy aspects of the flood warning gauge network in Queensland, including negotiating SLAs and technical standards, investigating partnership opportunities to reduce the burden of gauge ownership to councils, and exploring possibilities for contestability of flood warning infrastructure in Queensland. I would invite the Australian Government to contact my Cabinet colleague, the Honourable Andrew Cripps MP, Minister for Natural Resources and Mines regarding these matters.

I look forward to collaboration between our governments to improve flood warning arrangements in Queensland.

Yours sincerely

s22



CAMPBELL NEWMAN