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**From:** John Christy <climateman60@gmail.com>  
**Sent:** Monday, June 30, 2025 5:24 PM  
**To:** Cohen, Seth  
**Cc:** Steven Koonin; Travis Fisher; Josh Loucks; Ross McKittrick; Judith Curry; Roy W. Spencer  
**Subject:** Re: [EXTERNAL] NYTimes on warming

All

I was in Fairbanks Alaska when the Heat Advisory was announced. Didn't bother us (85F is a cool June day in Alabama - and their dewpoint was 24F - crisp, bone dry air).

Station, (Year Began), June 2025 Max, Hottest ever June temp, All Time Hottest  
Aurora, (2002), 86F, 93F, 93F  
College Observatory, (1948), 86F, 94F, 94F  
Fairbanks Intl AP, (1929), 85F, 96F, 96F  
Fairbanks RAWS, (1988), M, 95F, 100F  
Univ Exp Stn, (1904), M (report after end of month), 95F, 95F

June usually has the hottest temperature since the interior (Fairbanks) is so dry, and solar radiation is the big deal there, so June usually generates the hottest annual temperature. This First Ever heat advisory warned of temperatures 11F to 7F below the max temperatures we know have visited the region.

From the AP story on Alaska Heat Advisories, "It's not the first instance of unusually high temperatures in what many consider the nation's coldest state, but the National Weather Service only recently allowed for heat advisories to be issued there."

I guess the NY Times doesn't appreciate historical perspective.

For the global tropospheric temperatures, the situation looks more like a step function - it's a little warmer after each El Nino than before. Short time series allow all kinds of mischief with trends. The UAH global atmospheric trend for 2010 to 2025 is +0.36 °C/decade. But starting in 1998, the trend is cut to half of that (+0.17 °C/decade). If you are going to end on a peak, you need to start on a peak - and 15 years is way too short for a climate signal. To chuckle at the absurdity, the global trend since April 2024 is -3.3 °C/decade ... we're going to freeze to death!

By the way, Vermont's flood-of-record occurred in 1927.

"Nothing is defying our big picture about the physics of the climate system," Dr. Bitz said. Uh, Dr. Bitz, ... how about models warming much too quickly?

That's enough of that.

John C.

On Mon, Jun 30, 2025 at 2:31 PM Cohen, Seth <[seth.cohen@hq.doe.gov](mailto:seth.cohen@hq.doe.gov)> wrote:

Y axis is overweighted up, x axis has a skewed tail to the left (90 years), versus 50 on the right.

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**From:** Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>  
**Sent:** Monday, June 30, 2025 3:30 PM  
**To:** 'Travis Fisher' <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>; 'Josh Loucks' <[loucksj14@gmail.com](mailto:loucksj14@gmail.com)>; Cohen, Seth <[seth.cohen@hq.doe.gov](mailto:seth.cohen@hq.doe.gov)>  
**Cc:** 'Ross McKittrick' <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>; 'Judith Curry' <[curry.judith@gmail.com](mailto:curry.judith@gmail.com)>; 'Roy W. Spencer' <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)>; 'John Christy' <[climateman60@gmail.com](mailto:climateman60@gmail.com)>  
**Subject:** [EXTERNAL] NYTimes on warming

A quiz for our non-scientist colleagues:

Critique the lead graphics in this recent NYT article:

[https://www.nytimes.com/2025/06/26/climate/climate-heat-intensity.html?unlocked\\_article\\_code=1.S08.1xcl.nm658aV-Q3kU&smid=url-share](https://www.nytimes.com/2025/06/26/climate/climate-heat-intensity.html?unlocked_article_code=1.S08.1xcl.nm658aV-Q3kU&smid=url-share)

Steve Koonin

PS Bonus question- critique the article itself

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Use caution if this message contains attachments, links or requests for information.

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**From:** Travis Fisher <travis.scott.fisher@gmail.com>  
**Sent:** Saturday, July 19, 2025 11:05 AM  
**To:** John Christy  
**Cc:** Roy Spencer; Judith Curry; Ross McKittrick; Steven Koonin; Josh Loucks  
**Subject:** Review of CWG Report

Team,

I have now sent the CWG report to a total of eight reviewers internal to the DOE enterprise (five people from the national labs and three from the Office of Science). I've asked for a quick review to conclude by the end of the day on Monday.

Two things as we move forward:

- 1) We should plan to hash out reviewers' comments on Tuesday. My suggestion is to have a virtual meeting (or more than one) focused on responding to comments and either implementing the suggested change or explaining why we chose not to implement the change. Is most of the team available for that?
- 2) As promised, you all have the ultimate pen on the report. No changes to the process there. However, let's think strategically about how we want to construct the "peer review report." For example, I've just reviewed the set of comments from the first lab reviewer, and it's my hunch that most comments will be rejected. If that's the case, we should treat our response to comments as an opening salvo in the long debate ahead.

If you're wondering why we would document and potentially publish the private back-and-forth between this author group and DOE peer reviewers, it's partly a CYA exercise from the Office of Science but I also suspect the peer review comments and your responses will be the subject of a future FOIA request. As with the CWG report itself, I think the peer review report should be as respectful as possible (even though I know some comments will make your blood boil—for example, our first reviewer is a fan of RCP8.5) and should help readers better understand the debate.

Finally, I'm sending this email to warn you that all the reviewer materials will be coming from my DOE account. If you don't see anything from me in the next hour or so, please check your spam filters. Also please keep in mind that my DOE emails (and your replies) will be easily discoverable by outside parties.

Best,  
Travis

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**From:** Steven Koonin [steven.koonin@gmail.com]  
**Sent:** 6/8/2025 1:41:18 PM  
**To:** 'Judith Curry' [curry.judith@gmail.com]; 'John Christy' [climateman60@gmail.com]  
**CC:** 'Ross McKittrick' [ross.mckittrick@gmail.com]; 'Roy W. Spencer' [roywspencer@hotmail.com]; 'Travis Fisher' [travis.scott.fisher@gmail.com]; 'Josh Loucks' [loucksj14@gmail.com]; seth.cohen@hq.doe.gov  
**Subject:** RE: Traceable accounts  
**Attachments:** ~WRD3424.jpg

I've incorporated this, with minor edits, into the working draft.

SEK

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**From:** Judith Curry <curry.judith@gmail.com>  
**Sent:** Saturday, June 7, 2025 6:44 PM  
**To:** John Christy <climateman60@gmail.com>  
**Cc:** Steve Koonin <steven.koonin@gmail.com>; Ross McKittrick <ross.mckittrick@gmail.com>; Roy W. Spencer <roywspencer@hotmail.com>; Travis Fisher <travis.scott.fisher@gmail.com>; Josh Loucks <loucksj14@gmail.com>; seth.cohen@hq.doe.gov  
**Subject:** Traceable accounts

Text attached

On Sat, Jun 7, 2025 at 3:27 PM John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)> wrote:

All

How will we handle Key Message 2.2? This covers much of what we've analyzed. We've got heat waves, downpours, hurricanes and wildfires (Oh My!) here. This thing is a real target-rich environment.

[Key Message 2.2] Extreme Events Are Becoming More Frequent and Severe

Observations show an increase in the severity, extent, and/or frequency of multiple types of extreme events. Heatwaves have become more common and severe in the West since the 1980s (high confidence). Drought risk has been increasing in the Southwest over the past century (very high confidence), while at the same time rainfall has become more extreme in recent decades, especially east of the Rockies (very high confidence). Hurricanes have been intensifying more rapidly since the 1980s (high confidence) and causing heavier rainfall and higher storm surges (high confidence). More frequent and larger wildfires have been burning in the West in the past few decades due to a combination of climate factors, societal changes, and policies (very high confidence).

I like the last sentence that says to me, "Wildfires are increasing in the West due to increases in everything that makes wildfires increase."

Also, as evidence of wandering outside of the congressional guardrails how about all those sections on "Climate Action ...."

John C.

John Christy  
Director, Earth System Science Center

Professor, Atmos and Earth Science  
Alabama State Climatologist  
The University of Alabama in Huntsville  
[climateman60@gmail.com](mailto:climateman60@gmail.com)

On Jun 7, 2025, at 3:38 PM, Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)> wrote:

Attached is the latest draft that reflects discussion we had this afternoon, as well as edits Judy sent around a few hours ago.

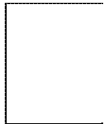
A few specifics:

- ? Travis et al to work on the charge letter appearing in Appendix I
- ? Seth to produce some text summarizing legal guidance on NCA requirements and process
- ? We'll frame deficiencies as two types – endemic (with a few examples of each) and specific; perhaps try our hand at how we're rewrite key findings to reflect deficiencies we identify. Try to keep each item to a single page.
- ? Suggest we reconvene Tuesday June 10 at noon EDT (I'll be at Stanford). Let Josh know if that works for you.

Steve Koonin

<NCA5 report Jun7[SEK][JC].docx>

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Judith Curry, President  
CFAN - Climate Forecast Applications Network  
Reno, NV USA  
[curry.judith@cfanclimate.com](mailto:curry.judith@cfanclimate.com) | +1.404.803.2012  
<http://www.cfanclimate.net>

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**From:** Ross McKittrick [ross.mckittrick@gmail.com]  
**Sent:** 7/4/2025 8:05:30 PM  
**To:** Judith Curry [curry.judith@gmail.com]; Steven Koonin [steven.koonin@gmail.com]; John Christy [climatemanager60@gmail.com]; Roy W. Spencer [roywspencer@hotmail.com]; Travis Fisher [travis.scott.fisher@gmail.com]; Josh Loucks [loucksj14@gmail.com]; Cohen, Seth [seth.cohen@hq.doe.gov]  
**Subject:** Post-meeting edition  
**Attachments:** NCA5.ReviewJuly4.docx

I applied the agreed-upon changes (Sct 3.3 & 4.1) and cleaned things up. I added some language about trend analysis (green font, Sct 4.1); pls check. See also proposed name for Ch 4.

Happy Independence Day everyone

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**From:** Seth Cohen [cohen.seth1994@gmail.com]  
**Sent:** 6/3/2025 11:34:16 PM  
**To:** Travis Fisher [travis.scott.fisher@gmail.com]  
**CC:** Steven Koonin [steven.koonin@gmail.com]; Roy Spencer [roywspencer@hotmail.com]; Ross McKittrick [ross.mckittrick@gmail.com]; Judith Curry [curry.judith@gmail.com]; John Christy [climateman60@gmail.com]; Josh Loucks [loucksj14@gmail.com]  
**Subject:** Re: Scoping

100%

On Tuesday, June 3, 2025, Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)> wrote:

Sounds good!

I can already tell this is going to be a whopper of an assignment (but fun, in a dark and twisted way).

Here's Key Message 15.1:

## Climate Change Is Harming Human Health

It is an established fact that climate change is harming physical, mental, spiritual, and community health and well-being through the increasing frequency and intensity of extreme events, increasing cases of infectious and vector-borne diseases, and declines in food and water quality and security. Climate-related hazards will continue to grow, increasing morbidity and mortality across all regions of the US (very likely, very high confidence).

Would it make sense to focus some attention on these key messages, especially given that they're on the summary pages on the website and appear verbatim within the report itself?

On Tue, Jun 3, 2025 at 5:52 PM Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)> wrote:

A couple of additional comments:

- As you writeup your two examples, include, if appropriate, an account of whether NASEM approved or criticized the point and what was the NCA5 team's response to the criticism
- I attach a very rough outline of the report so you can see how I think it might all come together. Please suggest improvements; this will evolve as text gets written
- Travis, Josh- In a few hours, I'll send you suggestions for a "library" we should establish

SEK

---

**From:** Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>  
**Sent:** Tuesday, June 3, 2025 4:36 PM  
**To:** Roy Spencer <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)>; cohen.seth1994@gmail.com  
**Cc:** Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>; Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>; Judith Curry <[curry.judith@gmail.com](mailto:curry.judith@gmail.com)>; John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)>; Josh Loucks <[loucksj14@gmail.com](mailto:loucksj14@gmail.com)>  
**Subject:** Re: Scoping

Adding Seth.

Here's the whole hog: [https://nca2023.globalchange.gov/downloads/NCA5\\_2023\\_FullReport.pdf](https://nca2023.globalchange.gov/downloads/NCA5_2023_FullReport.pdf)

As we discussed at the end of the call, each scientist will identify two glaring errors or omissions in the report and send a written synopsis/insert to the group on Friday, if not before. Large discrepancies between the underlying report and the summary pages are also fair game.

We'll reconvene on Saturday to discuss how to spend next week. Josh and I will be the administrative wizards for this second assignment. Steve is the spiritual leader. Judy may take a deep dive into the idea of NCA 5's fitness for purpose. We forgot to give Roy a tough assignment after he left (my fault... maybe his list of errors should be like 3 or 4 things?). Ross deserves a(n American) medal for his stewardship of the May report. As usual, John is already halfway done with his assignment.

Thanks again for contributing so much to this important work!

On Tue, Jun 3, 2025 at 2:10 PM Roy Spencer <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)> wrote:

"a billion here, a billion there..."

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**From:** Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>

**Sent:** Tuesday, June 3, 2025 12:22 PM

**To:** Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>

**Cc:** Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>; Judith Curry <[curry.judith@gmail.com](mailto:curry.judith@gmail.com)>; John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)>; Roy Spencer <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)>; Josh Loucks <[loucksj14@gmail.com](mailto:loucksj14@gmail.com)>

**Subject:** Re: Scoping

I'll put all my cards on the table, but I urge you to keep your expectations low because the assignment remains a moving target.

I can't blame anyone if you find a deep sense of irony (or affirmation?) in my inability to model the future of our work assignments just 14 days in advance. Some might say it's a non-linear and chaotic system.

Ross, this is a public data point for the USGCRP budget (warning, you may get very depressed seeing how much it is just for one FY): <https://www.globalchange.gov/budget>

On Tue, Jun 3, 2025 at 12:06 PM Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)> wrote:

I agree Steve, there's no way to discuss the summaries without discussing the underlying reports. In focusing on the Summaries I'm trying to avoid taking on a mandate to critique the entire NCA5 since it's too big and would have too many defenders. But we should give ourselves the scope to do both.

And, at the end of the day, whoever is asking us for the report should have some say in what we do, so maybe in our meeting Travis can let us know what the higher-ups are really looking for.

On Tue, Jun 3, 2025 at 11:41 AM Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)> wrote:



The two alternatives Judy mentions (fundamental deficiencies vs specific criticisms of the summaries) aren't mutually exclusive – covering both would make the report more powerful. And any criticism of the summaries will necessarily refer to the coverage of those topics in the report itself.

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**From:** Judith Curry <curry.judith@gmail.com>

**Sent:** Tuesday, June 3, 2025 11:23 AM

**To:** Ross McKittrick <ross.mckittrick@gmail.com>

**Cc:** Steven Koonin <steven.koonin@gmail.com>; John Christy <climateman60@gmail.com>; Roy Spencer <roywspencer@hotmail.com>; Travis Fisher <travis.scott.fisher@gmail.com>; Josh Loucks <loucksj14@gmail.com>

**Subject:** Re: Scoping

The recommendations part will definitely be the most interesting

However, I think focusing on the summaries of the NCA5 is misguided; if we find the summaries aren't useful, then people could infer that you just need to read the full report

I suggest focusing on fundamental deficiencies of their approach for purposes of informing policy making

On Tue, Jun 3, 2025 at 8:15 AM Ross McKittrick <ross.mckittrick@gmail.com> wrote:

Here's a slight revision of the charge letter. #3 and #4 are replaced by a new #3 that simply asks for recommendations. From what we've discussed previously and my own inclinations I would list things like the following:

- expand and secure support for basic climate monitoring including the MSU series, Argo floats, radiosondes etc.
- expand discussion of potential benefits of climate change including reduced cold-weather mortality and enhanced CO2 fertilization
- red team review of problems with the global surface thermometer network, including lack of spatial coverage and formal assessment of whether the bias adjustments actually remove known UHI biases
- cull the GCM herd and retire those models that have intractable problems of warming bias
- Invest in substantial efforts to digitize hand-written records of temperature and precip across the US. Basically, hire a team of 100 researchers to see if they can do in 5 years what John does in a month.
- Create a public-facing data dissemination site that provides access to complete records of climate-relevant metrics including extreme weather, in every case showing the entire data set not merely the last 20 years
- Reduce or eliminate regional climate projections on the basis that models are incapable of doing it and the information provided is useless. Focus instead on providing information geared to optimizing adaptation and resilience

Etc.

On Mon, Jun 2, 2025 at 4:10 PM Judith Curry <curry.judith@gmail.com> wrote:

yes that is exactly what palmer is up to, but it works for us

On Mon, Jun 2, 2025 at 1:06 PM Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)> wrote:

Neat!

Roy, part of the context for the Palmer/Stevens statements is that they were campaigning for a bigger computer facility (maybe they still are – some big EU climate computer center analogous to CERN for particle physics). Saying (politely) that the current models aren't any good helps in the justification.

**From:** John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)>

**Sent:** Monday, June 2, 2025 3:59 PM

**To:** Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>

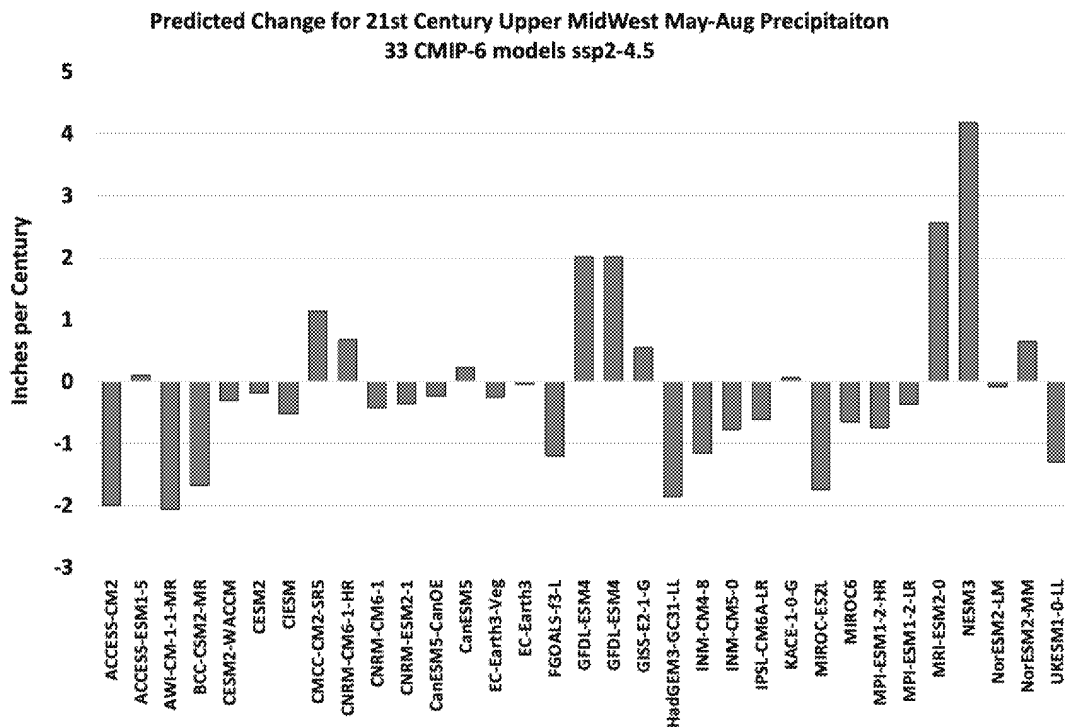
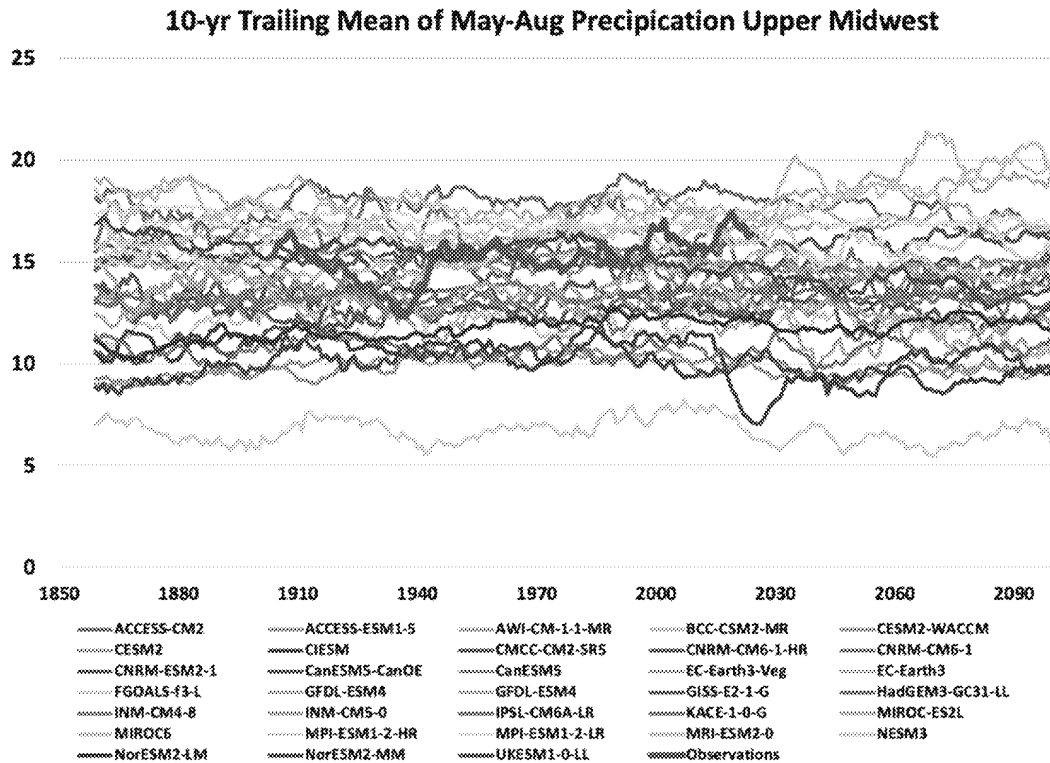
**Cc:** Roy Spencer <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)>; Judith Curry <[curry.judith@gmail.com](mailto:curry.judith@gmail.com)>; Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>; Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>; Josh Loucks <[loucksj14@gmail.com](mailto:loucksj14@gmail.com)>

**Subject:** Re: Scoping

All

I was able to grab the CMIP6 model output. To give an example of regional climate models' purpose-fitting capability, we now have a good set of continuous precip stations in the upper Midwest with which to compare. In terms of the extreme events, I think we'll find no significant regional observational trends, but Ross will test that statement. In terms of forecasted bulk growing season rainfall, this will be a fair test for climate models since they don't have to contend with (and thus make excuses for) significant issues of irregular topography and coastlines. I got a kick out of the trend for the 21st century in the growing season rainfall. The model average is -0.13 inches PER CENTURY, or less than 1 percent. The only policy here would be one we've long recommended - adapt to high interannual (natural) variability if you want to thrive. A point here too is that the NCA5 never looked at the details in a scientific way ... they just waved their hands.

John C.



On Mon, Jun 2, 2025 at 2:40 PM Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)> wrote:

Here are the three quotes from Palmer and Stevens that I often invoke (the third one was not in a public forum).

## Even climate modelers don't believe their own (regional) results

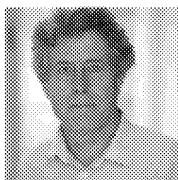
... for many key applications that require regional climate model output or for assessing large-scale changes from smallscale processes, we believe that **the current generation of models is not fit for purpose.**

— T. Palmer and B. Stevens, PNAS (2019)



Our understanding makes a compelling case for reducing greenhouse gas emissions. What remains unclear is what happens when it warms. In fact, **it is difficult, and in many places impossible, to scientifically advise societal efforts to adapt in the face of unavoidable warming.** Our knowledge gaps are frightful because they make it **impossible to assess the extent to which a given degree of warming poses existential threats.**

— Bjorn Stevens, UCLA Yanai Lecture, 5/5/22



It is an unfortunate fact of the matter that most policy and decision makers view the science of climate change as done and dusted and hence the research we fluid-earthers are involved in is perceived to be largely irrelevant to the important question of how to tackle the climate emergency. On top of this, if we are let out of our ivory towers to express the fact that **our understanding of climate change - especially at the regional scale - is rather poor (how can a country adapt if it doesn't even know the sign of precipitation change with any confidence - as IPCC figures show),** the same policy and decision makers start to feel uncomfortable. They'd rather we didn't say such things in public - they claim it undermines the public's faith in the need to take action. — T. Palmer, NAS group email 4/15/23

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**From:** Roy Spencer <roywspencer@hotmail.com>

**Sent:** Monday, June 2, 2025 3:34 PM

**To:** Judith Curry <curry.judith@gmail.com>; John Christy <climateman60@gmail.com>

**Cc:** Steven Koonin <steven.koonin@gmail.com>; Ross McKittrick <ross.mckittrick@gmail.com>; Travis Fisher <travis.scott.fisher@gmail.com>; Josh Loucks <loucksj14@gmail.com>

**Subject:** RE: Scoping

If we end up saying that models are not fit for purpose (policy-wise), are we not making a judgement about policy already? If policy is based upon Precautionary Principle hogwash, then it can be argued models ARE fit for purpose.

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

**From:** Judith Curry <curry.judith@gmail.com>

**Date:** 6/2/25 12:35 PM (GMT-06:00)

**To:** John Christy <climateman60@gmail.com>

**Cc:** Steven Koonin <steven.koonin@gmail.com>, Roy Spencer <roywspencer@hotmail.com>, Ross McKittrick <ross.mckittrick@gmail.com>, Travis Fisher <travis.scott.fisher@gmail.com>, Josh Loucks <loucksj14@gmail.com>

Subject: Re: Scoping

I think we can reframe #3 and #4 to address more general issues at the science-policy interface I'll try to find time today to write something

On Mon, Jun 2, 2025 at 10:29 AM John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)> wrote:

Ross

I can contribute to #1 and #2, but wouldn't be much help with #3 and #4.

John C.

On Mon, Jun 2, 2025 at 10:47 AM Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)> wrote:

I think the preamble and questions 1 and 2 are right on point.

But I've a problem with questions 3 and 4 as they're out of our lane. We are not experts in USG organization, roles, responsibilities, authorities. We see the beast only from the periphery.

A better question replacing 3 and 4 would be to ask for recommendations as to how the NCA process could be improved.

SEK

**From:** Roy Spencer <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)>

**Sent:** Monday, June 2, 2025 11:14 AM

**To:** Judith Curry <[curry.judith@gmail.com](mailto:curry.judith@gmail.com)>; Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>

**Cc:** Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>; Josh Loucks <[loucksj14@gmail.com](mailto:loucksj14@gmail.com)>; John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)>; Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>

**Subject:** Re: Scoping

Looks good to me... not sure the last (4th) question is necessary. Supposedly, the USGCRP was formed to coordinate global change research across agencies... Pielke Jr (whose PhD thesis was on its formation and purpose) claims that putting USGCRP control in the WH makes the whole process unavoidably political, which was probably the intent. Not sure how that factors in here...

-Roy

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**From:** Judith Curry <[curry.judith@gmail.com](mailto:curry.judith@gmail.com)>

**Sent:** Monday, June 2, 2025 9:56 AM

**To:** Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>

**Cc:** Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>; Josh Loucks <[loucksj14@gmail.com](mailto:loucksj14@gmail.com)>; John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)>; Roy W. Spencer <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)>; Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>

**Subject:** Re: Scoping

this is good

On Mon, Jun 2, 2025 at 7:32 AM Ross McKittrick <[ross.mckitrick@gmail.com](mailto:ross.mckitrick@gmail.com)> wrote:

I have drafted a 1-page charge letter for the Secretary, setting out what I think are entirely defensible questions for a cabinet official to ask, and which would be feasible for us to answer on a short time scale. Comments welcome.

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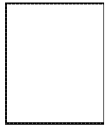
Judith Curry, President  
CFAN - Climate Forecast Applications  
Network  
Reno, NV USA  
[curry.judith@cfanclimate.com](mailto:curry.judith@cfanclimate.com) |  
+1.404.803.2012  
<http://www.cfanclimate.net>

--



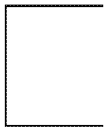
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+1.404.803.2012  
<http://www.cfanclimate.net>

---

**From:** Travis Fisher [travis.scott.fisher@gmail.com]  
**Sent:** 6/3/2025 5:52:36 PM  
**To:** Steven Koonin [steven.koonin@gmail.com]  
**CC:** Ross McKittrick [ross.mckittrick@gmail.com]; Judith Curry [curry.judith@gmail.com]; John Christy [climateman60@gmail.com]; Roy Spencer [roywspencer@hotmail.com]; Josh Loucks [loucksj14@gmail.com]  
**Subject:** Re: Scoping

A detailed critique would be great, but we might have only 2-3 weeks to turn something in to the relevant higher-ups, so I think we should prioritize our work to address the most significant errors first. We'll never catch them all, but it would be great to highlight all the top-tier issues. Given the time crunch, please treat me, Josh, and Seth as staff researchers who can help you dig into anything you like.

And yes, if you all can do NCA 6 for the low price of \$2.5 billion, I'd love to retire on the 0.5% finder's fee associated with that!

On Tue, Jun 3, 2025 at 1:36 PM Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)> wrote:

Yes, we can't (and shouldn't) critique the whole thing. We don't have the expertise and don't have the time. But I think the overview and Chapters 2-3 are ripe for criticism, as are selected parts of the rest where we've got cred.

And then we can say the rest either relies on these chapters ("fruit of the poisonous tree" argument) and/or that if what we looked at is so flawed, its very likely the rest is as bad.

---

**From:** Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>  
**Sent:** Tuesday, June 3, 2025 12:07 PM  
**To:** Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>  
**Cc:** Judith Curry <[curry.judith@gmail.com](mailto:curry.judith@gmail.com)>; John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)>; Roy Spencer <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)>; Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>; Josh Loucks <[loucksj14@gmail.com](mailto:loucksj14@gmail.com)>  
**Subject:** Re: Scoping

I agree Steve, there's no way to discuss the summaries without discussing the underlying reports. In focusing on the Summaries I'm trying to avoid taking on a mandate to critique the entire NCA5 since it's too big and would have too many defenders. But we should give ourselves the scope to do both.

And, at the end of the day, whoever is asking us for the report should have some say in what we do, so maybe in our meeting Travis can let us know what the higher-ups are really looking for.

On Tue, Jun 3, 2025 at 11:41 AM Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)> wrote:

The two alternatives Judy mentions (fundamental deficiencies vs specific criticisms of the summaries) aren't mutually exclusive – covering both would make the report more powerful. And any criticism of the summaries will necessarily refer to the coverage of those topics in the report itself.

---

**From:** Judith Curry <[curry.judith@gmail.com](mailto:curry.judith@gmail.com)>  
**Sent:** Tuesday, June 3, 2025 11:23 AM  
**To:** Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>  
**Cc:** Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>; John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)>; Roy Spencer



<roywspencer@hotmail.com>; Travis Fisher <travis.scott.fisher@gmail.com>; Josh Loucks <loucksj14@gmail.com>

**Subject:** Re: Scoping

The recommendations part will definitely be the most interesting

However, I think focusing on the summaries of the NCA5 is misguided; if we find the summaries aren't useful, then people could infer that you just need to read the full report

I suggest focusing on fundamental deficiencies of their approach for purposes of informing policy making

On Tue, Jun 3, 2025 at 8:15 AM Ross McKittrick <ross.mckitrick@gmail.com> wrote:

Here's a slight revision of the charge letter. #3 and #4 are replaced by a new #3 that simply asks for recommendations. From what we've discussed previously and my own inclinations I would list things like the following:

- expand and secure support for basic climate monitoring including the MSU series, Argo floats, radiosondes etc.
- expand discussion of potential benefits of climate change including reduced cold-weather mortality and enhanced CO2 fertilization
- red team review of problems with the global surface thermometer network, including lack of spatial coverage and formal assessment of whether the bias adjustments actually remove known UHI biases
- cull the GCM herd and retire those models that have intractable problems of warming bias
- Invest in substantial efforts to digitize hand-written records of temperature and precip across the US. Basically, hire a team of 100 researchers to see if they can do in 5 years what John does in a month.
- Create a public-facing data dissemination site that provides access to complete records of climate-relevant metrics including extreme weather, in every case showing the entire data set not merely the last 20 years
- Reduce or eliminate regional climate projections on the basis that models are incapable of doing it and the information provided is useless. Focus instead on providing information geared to optimizing adaptation and resilience

Etc.

On Mon, Jun 2, 2025 at 4:10 PM Judith Curry <curry.judith@gmail.com> wrote:

yes that is exactly what palmer is up to, but it works for us

On Mon, Jun 2, 2025 at 1:06 PM Steven Koonin <steven.koonin@gmail.com> wrote:

Neat!

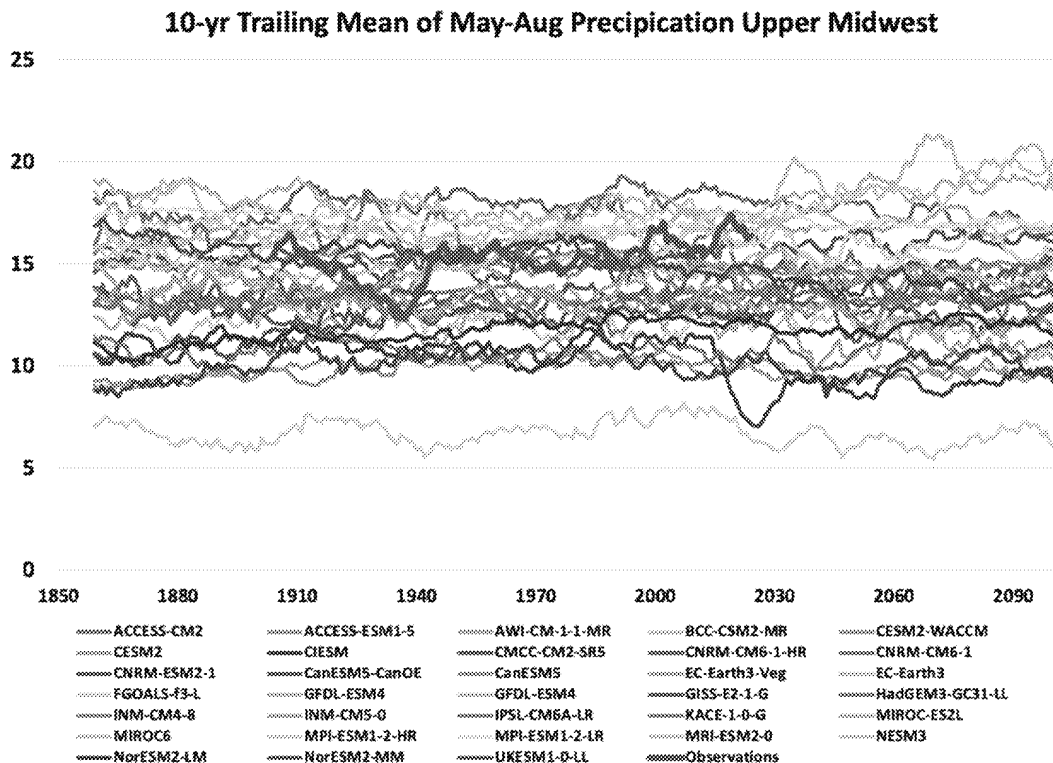
Roy, part of the context for the Palmer/Stevens statements is that they were campaigning for a bigger computer facility (maybe they still are – some big EU climate computer center analogous to CERN for particle physics). Saying (politely) that the current models aren't any good helps in the justification.

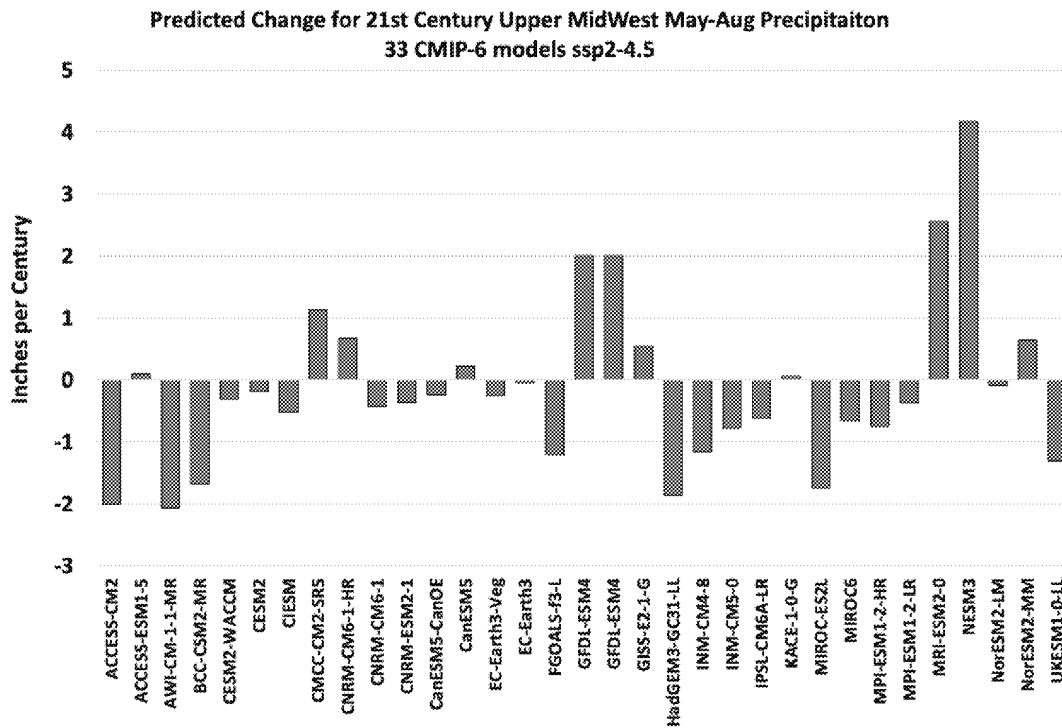
**From:** John Christy <climateman60@gmail.com>  
**Sent:** Monday, June 2, 2025 3:59 PM  
**To:** Steven Koonin <steven.koonin@gmail.com>  
**Cc:** Roy Spencer <roywspencer@hotmail.com>; Judith Curry <curry.judith@gmail.com>; Ross McKittrick <ross.mckittrick@gmail.com>; Travis Fisher <travis.scott.fisher@gmail.com>; Josh Loucks <loucksj14@gmail.com>  
**Subject:** Re: Scoping

All

I was able to grab the CMIP6 model output. To give an example of regional climate models' purpose-fitting capability, we now have a good set of continuous precip stations in the upper Midwest with which to compare. In terms of the extreme events, I think we'll find no significant regional observational trends, but Ross will test that statement. In terms of forecasted bulk growing season rainfall, this will be a fair test for climate models since they don't have to contend with (and thus make excuses for) significant issues of irregular topography and coastlines. I got a kick out of the trend for the 21st century in the growing season rainfall. The model average is -0.13 inches PER CENTURY, or less than 1 percent. The only policy here would be one we've long recommended - adapt to high interannual (natural) variability if you want to thrive. A point here too is that the NCA5 never looked at the details in a scientific way ... they just waved their hands.

John C.





On Mon, Jun 2, 2025 at 2:40 PM Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)> wrote:

Here are the three quotes from Palmer and Stevens that I often invoke (the third one was not in a public forum).

## Even climate modelers don't believe their own (regional) results

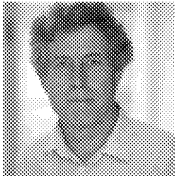
... for many key applications that require regional climate model output or for assessing large-scale changes from smallscale processes, we believe that **the current generation of models is not fit for purpose.**

- T. Palmer and B. Stevens, PNAS (2019)



Our understanding makes a compelling case for reducing greenhouse gas emissions. What remains unclear is what happens when it warms. In fact, it is difficult, and in many places impossible, to **scientifically advise societal efforts to adapt in the face of unavoidable warming.** Our knowledge gaps are frightful because they make it impossible to assess the extent to which a given degree of warming poses existential threats.

-- Bjorn Stevens, UCLA Yonai Lecture, 5/5/22



It is an unfortunate fact of the matter that most policy and decision makers view the science of climate change as done and dusted and hence the research we fluid-earthers are involved in is perceived to be largely irrelevant to the important question of how to tackle the climate emergency. On top of this, if we are let out of our ivory towers to express the fact that **our understanding of climate change - especially at the regional scale - is rather poor** (how can a country adapt if it doesn't even know the sign of precipitation change with any confidence - as IPCC figures show), the same policy and decision makers start to feel uncomfortable. They'd rather we didn't say such things in public - they claim it undermines the public's faith in the need to take action. - T. Palmer, NAS group email 4/15/23

16

From: Roy Spencer <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)>

Sent: Monday, June 2, 2025 3:34 PM

**To:** Judith Curry <[curry.judith@gmail.com](mailto:curry.judith@gmail.com)>; John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)>  
**Cc:** Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>; Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>; Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>; Josh Loucks <[loucksj14@gmail.com](mailto:loucksj14@gmail.com)>  
**Subject:** RE: Scoping

If we end up saying that models are not fit for purpose (policy-wise), are we not making a judgement about policy already? If policy is based upon Precautionary Principle hogwash, then it can be argued models ARE fit for purpose.

Sent from my Verizon. Samsung Galaxy smartphone

----- Original message -----

From: Judith Curry <[curry.judith@gmail.com](mailto:curry.judith@gmail.com)>  
Date: 6/2/25 12:35 PM (GMT-06:00)  
To: John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)>  
Cc: Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>, Roy Spencer <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)>, Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>, Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>, Josh Loucks <[loucksj14@gmail.com](mailto:loucksj14@gmail.com)>  
Subject: Re: Scoping

I think we can reframe #3 and #4 to address more general issues at the science-policy interface I'll try to find time today to write something

On Mon, Jun 2, 2025 at 10:29 AM John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)> wrote:

Ross

I can contribute to #1 and #2, but wouldn't be much help with #3 and #4.

John C.

On Mon, Jun 2, 2025 at 10:47 AM Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)> wrote:

I think the preamble and questions 1 and 2 are right on point.

But I've a problem with questions 3 and 4 as they're out of our lane. We are not experts in USG organization, roles, responsibilities, authorities. We see the beast only from the periphery.

A better question replacing 3 and 4 would be to ask for recommendations as to how the NCA process could be improved.

SEK

**From:** Roy Spencer <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)>  
**Sent:** Monday, June 2, 2025 11:14 AM  
**To:** Judith Curry <[curry.judith@gmail.com](mailto:curry.judith@gmail.com)>; Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>  
**Cc:** Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>; Josh Loucks <[loucksj14@gmail.com](mailto:loucksj14@gmail.com)>; John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)>; Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>  
**Subject:** Re: Scoping

Looks good to me... not sure the last (4th) question is necessary. Supposedly, the USGCRP was formed to coordinate global change research across agencies... Pielke Jr (whose PhD thesis was on its formation and purpose) claims that putting USGCRP control in the WH makes the whole process unavoidably political, which was probably the intent. Not sure how that factors in here...

-Roy

---

**From:** Judith Curry <[curry.judith@gmail.com](mailto:curry.judith@gmail.com)>  
**Sent:** Monday, June 2, 2025 9:56 AM  
**To:** Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>  
**Cc:** Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>; Josh Loucks <[loucksj14@gmail.com](mailto:loucksj14@gmail.com)>; John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)>; Roy W. Spencer <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)>; Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>  
**Subject:** Re: Scoping

this is good

On Mon, Jun 2, 2025 at 7:32 AM Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)> wrote:

I have drafted a 1-page charge letter for the Secretary, setting out what I think are entirely defensible questions for a cabinet official to ask, and which would be feasible for us to answer on a short time scale. Comments welcome.

--



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**From:** Roy Spencer <roy.spencer@nsstc.uah.edu>  
**Sent:** Tuesday, August 5, 2025 6:39 AM  
**To:** 'Steven Koonin'; climateman60@gmail.com; ross.mckitrick@gmail.com; 'Judith Curry'  
**Subject:** RE: keeping it to ourselves

Steve:

I had not noticed my work email address was in some of these.

Our previous correspondence used my Hotmail address... I never use gmail:

[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)

-Roy

---

**From:** Steven Koonin <steven.koonin@gmail.com>  
**Sent:** Monday, August 4, 2025 10:53 AM  
**To:** climateman60@gmail.com; roy.spencer@nsstc.uah.edu; ross.mckitrick@gmail.com; 'Judith Curry' <curry.judith@gmail.com>  
**Subject:** keeping it to ourselves  
**Importance:** High

We should be mindful that our email communications that go to DOE addresses are subject to FOIA. While I don't think we've been saying anything untoward in our recent group exchanges, one never knows how they might be twisted by those of nefarious intent.

I'd therefore urge that we keep our future email communications restricted to the authors (except, of course, for matters that directly involve the DOE – like the recent AI query from the New Yorker).

Steve Koonin

PS Roy- is there are gmail address we can use for you, rather than the UAH address (which may itself be subject to FOIA)?

**From:** Travis Fisher [travis.scott.fisher@gmail.com]  
**Sent:** 5/21/2025 7:24:18 PM  
**To:** Roy Spencer [roywspencer@hotmail.com]; Steven Koonin [steven.koonin@gmail.com]; Judith Curry [curry.judith@gmail.com]; Ross McKittrick [ross.mckittrick@gmail.com]; John Christy [climateman60@gmail.com]  
**CC:** loucksj14@gmail.com  
**Subject:** Re: revised SLR figure  
**Attachments:** Report Draft May 21.docx

Hi Everyone,

Josh here, sending an updated version of the document. This should have the newest drop box versions of each chapter in it, as well as the forward, glossary, etc.

Travis and I are available to chat whenever is convenient. Let's plan for 4 pm EST if that works for everyone.

Let me know if you have any questions or concerns with this version of the report.

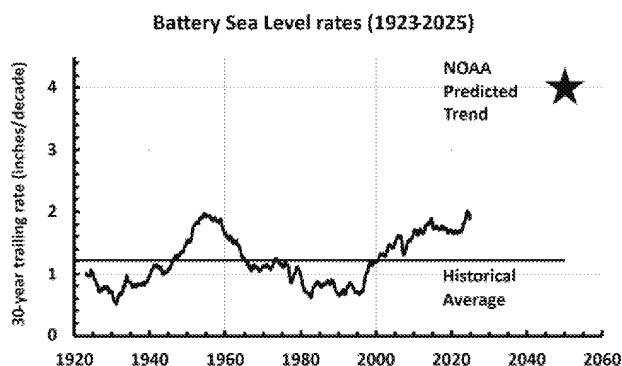
Thanks - Josh

On Wed, May 21, 2025 at 11:12 AM Roy Spencer <roywspencer@hotmail.com> wrote:  
I LIKE THE FIRST ONE.

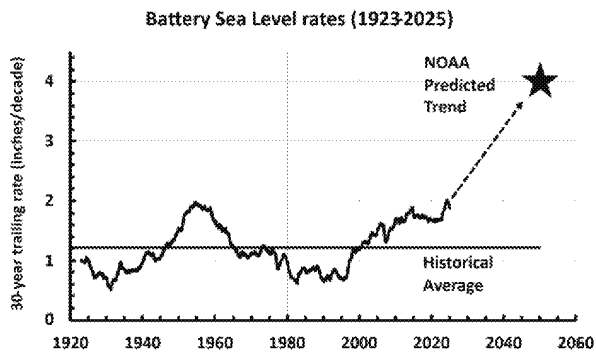
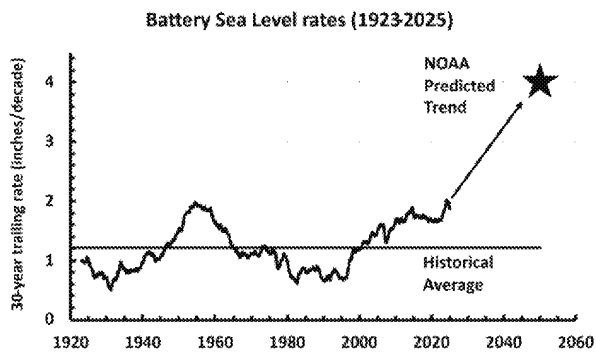
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**From:** Steven Koonin <steven.koonin@gmail.com>  
**Sent:** Wednesday, May 21, 2025 9:42 AM  
**To:** 'Ross McKittrick' <ross.mckittrick@gmail.com>  
**Cc:** 'Judith Curry' <curry.judith@gmail.com>; 'Roy W. Spencer' <roywspencer@hotmail.com>; 'Travis Fisher' <travis.scott.fisher@gmail.com>; 'John Christy' <climateman60@gmail.com>  
**Subject:** RE: revised SLR figure

More alternatives for the SLR figure







**From:** Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>

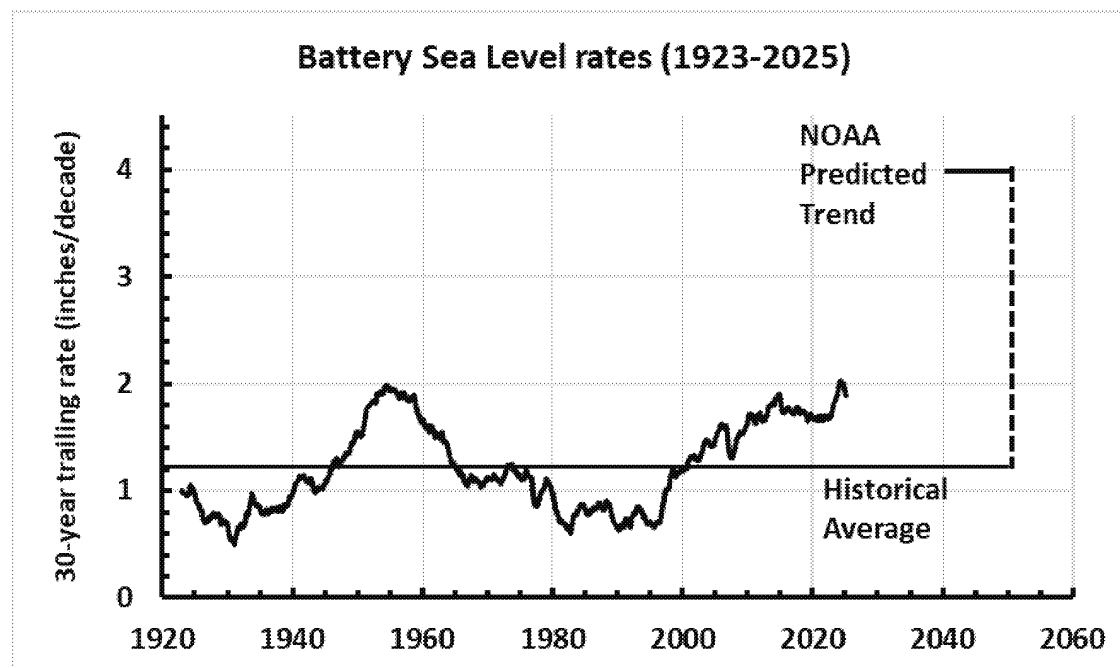
**Sent:** Tuesday, May 20, 2025 8:13 PM

**To:** 'Ross McKittrick' <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>

**Cc:** 'Judith Curry' <[curry.judith@gmail.com](mailto:curry.judith@gmail.com)>; 'Roy W. Spencer' <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)>; 'Travis Fisher' <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>; 'John Christy' <[climateman60@gmail.com](mailto:climateman60@gmail.com)>

**Subject:** RE: revised SLR figure

How's this?



**From:** Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>  
**Sent:** Tuesday, May 20, 2025 8:02 PM  
**To:** 'Ross McKittrick' <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>  
**Cc:** 'Judith Curry' <[curry.judith@gmail.com](mailto:curry.judith@gmail.com)>; 'Roy W. Spencer' <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)>; 'Travis Fisher' <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>; 'John Christy' <[climateman60@gmail.com](mailto:climateman60@gmail.com)>  
**Subject:** revised SLR figure

Here, the text, citation, figure caption, and figure.

SEK

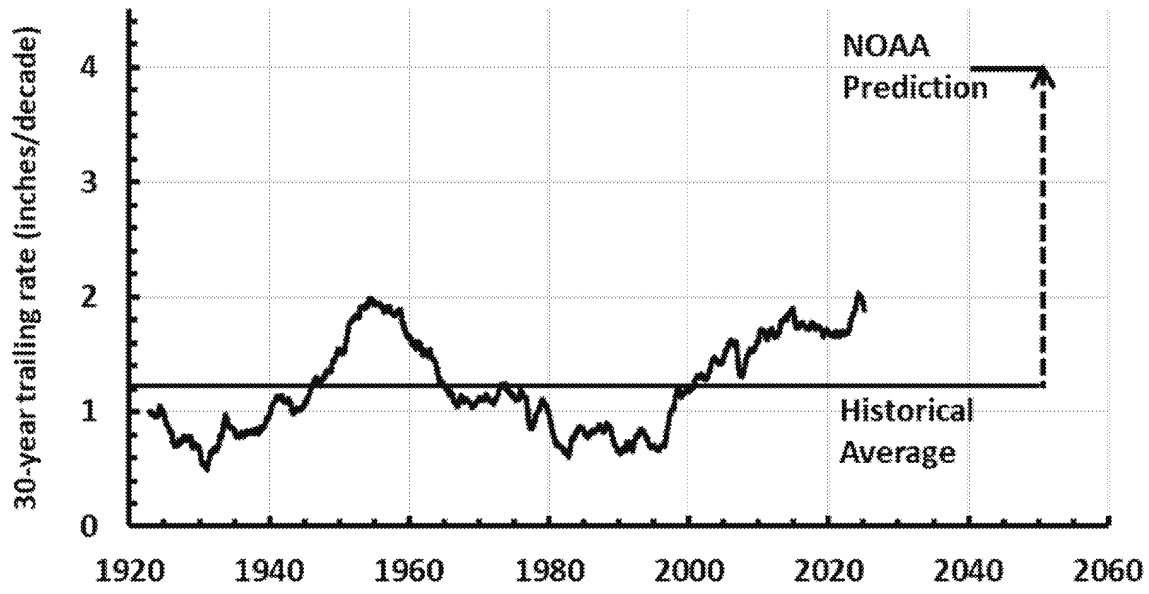
#### Text:

In February 2022, NOAA issued its projections of sea level rise for various sites along the US coast (Sweet, 2022). They claim that by 2050, the sea will have risen one foot at The Battery in Manhattan. A one foot rise in thirty years is a rate of 4 inch/decade, twice the current rate and more than three times the average rate over the past century. In that historical context, NOAA’s projection is remarkable—as shown in Figure 7.6, it would require a dramatic acceleration beyond anything observed in the early 20<sup>th</sup> century. But even more noteworthy is that they say this rise is “locked in”—it will happen no matter what future emissions are. We should know in a decade or so whether that prediction has legs.

**Citation:** <https://www.usgs.gov/publications/global-and-regional-sea-level-rise-scenarios-united-states>

**Figure 7.6** Rate of sea level rise at the Battery in Manhattan. Shown is the historical thirty-year trailing trend, together with the allegedly “locked in” NOAA predicted trend for 2050. Historical data: NOAA Tides and Current.

Battery Sea Level rates (1923-2025)



---

**From:** Travis Fisher <travis.scott.fisher@gmail.com>  
**Sent:** Thursday, April 24, 2025 3:06 PM  
**To:** John Christy  
**Cc:** Ross McKittrick; Roy Spencer; Steve Koonin; Judith Curry  
**Subject:** Re: Apr 20 update

Hi all,

I've been waiting to chime in because I was hoping for more certainty by now, but the only thing I have to add is that Ross has won his fight with the White House about joining via contract (even though Ross is an evil foreigner from a strange place where people are conspicuously nice). It took a call from the Secretary, but we prevailed. (Ross, you'll be hearing more very soon.)

I can also confirm all the other information that was shared so far by Ross and John. The Secretary wants a thorough report that you all are proud of. If the EPA declines to use it, or demands an April 30 deadline, so be it, but the Secretary will move forward with the full report in any case.

The remaining variable (for me, anyway) is what to offer EPA if they demand a document before you all are comfortable putting your names on it. My preference is to supply them with something, even if it's in rough shape and unfit for attribution. Please think about what you all might want to do in that case because I think it's still a strong possibility. The main argument against supplying something in that case is that it would essentially be an early draft of the report Secretary Wright wants, so think about ways to differentiate the documents, etc.

Thanks again for your hard work under an impossible deadline. I'll update you all as soon as we get a new (interim/rushed) deadline from EPA. It's my understanding that the Secretary initially asked for May 15, but it's possible he will ask for even more time after hearing directly from Ross about how helpful it would be to get another full month (or more). Wright and Zeldin are traveling together today, so we should have an answer soon.

Best,  
Travis

On Thu, Apr 24, 2025 at 1:12 PM John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)> wrote:  
All

My plane was late, so I just missed the meeting with Ross, Travis and the Secretary, but did meet with Ross and Travis for over an hour immediately afterward.

Ross's summary below is what I gathered from our meeting. My sense was that the difficulties being encountered are related to a lack of communication between EPA and DoE, and even the White House, aided by the general sand-in-the-gears that some career federal employees are supplying. As Ross indicates we may have two phases - a generic, "un-authored" document fairly soon and a compete "authored" document later. The purpose of these documents is still murky as the challenge to the EF may or may not use them, but the Secretary absolutely wants the products. I mentioned again that an authored document would be a real commitment because we would have to deal with answering criticism as well as dealing with personal attacks for months.

As Ross said, we should be hearing more very soon.

John C.

John Christy  
Director, Earth System Science Center  
Professor, Atmos and Earth Science  
Alabama State Climatologist  
The University of Alabama in Huntsville  
[climateman60@gmail.com](mailto:climateman60@gmail.com)

On Apr 23, 2025, at 7:49 AM, Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)> wrote:

Thanks Steve and Roy. I have a few wording suggestions but am off to a meeting so I'll write later.

Travis and I had a meeting with Secretary Wright yesterday. I'll let Travis provide a more complete summary but my takeaway was:

- Chris was unaware of the problems we had encountered until we briefed him
- The current deadline and lack of direction conflicts with his vision of the project
- He is going to try to get more time for us; and there might be an option which gives us a lot more time
- He wants us to have the time and support to produce a substantive document with our names on it. He understands why if we are held to an Apr 30 deadline we would not be able to do that.
- More to come as he digs into the situation.

On Wed, Apr 23, 2025 at 6:59 AM Roy Spencer <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)> wrote:  
All:

I've made some edits to Steve's document (attached).

The first (rather large) edit has to do with the implication that climate change is only due to changes in the radiative energy balance of the Earth, which I (and Dick Lindzen) disagree with. How to handle this, though, is not that obvious to me. I realize we are addressing human influences on climate, but I don't think we should accept such an anthropocentric view of climate change at the outset... This comes up later, too, in the discussion of global radiative forcing since the 1700s... We have no clue what kinds of other energy imbalances (either at the surface or at top-of-atmosphere) might have been occurring due to Nature since the 1700s.

Again, I'm open to suggestions. Maybe such issues are not necessary to mention if even the putative human forcings lead to non-damaging impacts (?)

-Roy

---

**From:** Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>  
**Sent:** Tuesday, April 22, 2025 11:05 PM

**To:** 'Ross McKittrick' <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>; 'Travis Fisher' <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>; 'John Christy' <[climateman60@gmail.com](mailto:climateman60@gmail.com)>; 'Roy W. Spencer' <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)>; 'Judith Curry' <[curry.judith@gmail.com](mailto:curry.judith@gmail.com)>  
**Subject:** RE: Apr 20 update

Attached is my take on an integrated Part 1 (together with a modest introduction). I've incorporated relevant material from others.

1. See if you like the narrative arc, which to me feels pretty natural. Note that the subsections turned out to have somewhat different titles
2. Most problematic for me is the technical level. Trying to avoid too much "Climate 101", but some of the material, particularly in Parts 2 and 3 will get pretty technical
3. I'm feeling like it lacks punch. "So what" is missing
4. Obviously, the mechanics need work. Formatting, citations, better figures, ...
5. If you all aren't too dissatisfied with this, I'd propose doing a similar job on Part 2 in the next few days.

SEK

---

**From:** Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>  
**Sent:** Sunday, April 20, 2025 8:09 PM  
**To:** Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>; John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)>; Roy W. Spencer <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)>; Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>; Judith Curry <[curry.judith@gmail.com](mailto:curry.judith@gmail.com)>  
**Subject:** Apr 20 update

I've created a new dropbox folder called April 20 version which contains the revised outline, the associated chapters and the reference list for all my sections. I took the documents done prior to this point and renumbered the files and sections accordingly.

The new outline is (bold denotes draft posted)

Part I: Human influence on the climate

- 1 Components of anthropogenic radiative forcing and their history to date
- 2 The carbon cycle and future emission scenarios**
- 3 Aerosols and the uncertainties associated with them

Part II: Climate response to anthropogenic influence

- 4 Measuring climate sensitivity to CO2 doubling**

- 5 Models versus observations in recent past**
- 6 Uncertainties in analysis of attribution**
- 7 Evidence on trends and attributable changes in extreme weather**
- 8 Sea level rise

Part III: Impacts on ecosystems and society

- 9 Managing risks of extreme weather**
- 10 Mortality risk from extreme heat and cold
- 11 Climate change and US agriculture**
- 12 Climate change and global greening
- 13 Climate change and economic growth**
- 14 Estimates of the Social Cost of Carbon
- 15 US vehicle-based CO2 emissions and the global climate

Steve: can you draft 1 & 3?

Judy: hoping you can do 8, 10 and 14 (I have info on 14 as well.)

John I think you have something on 15.

Cheers,  
Ross

---

**From:** Travis Fisher [travis.scott.fisher@gmail.com]  
**Sent:** 4/19/2025 2:03:43 AM  
**To:** Judith Curry [curry.judith@gmail.com]  
**CC:** Ross McKittrick [ross.mckittrick@gmail.com]; John Christy [climatemanager60@gmail.com]; Roy Spencer [roywspencer@hotmail.com]; Steven Koonin [steven.koonin@gmail.com]  
**Subject:** Re: I'll need help: 10 sections to go

Thanks so much, Judy!

Great questions. I don't think anyone has taken on the "air pollutant" issue. Please feel free to tackle it if you like!

Regarding the regulation in question, I've been told this summary of the science will be published as a technical support document relevant to a new proposed rule on tailpipe emissions standards for motor vehicles. I don't know whether that means all motor vehicles or just light- and medium-duty vehicles. It might be helpful to differentiate GHG emissions from the different classes to give the EPA flexibility in that regard.

The previous administration combined the rules for GHGs and criteria pollutants into a "multi-pollutant" rule, and I don't have any information on how this administration will package the different emissions standards. The exact charge for you all is to provide an update on the science relevant to the EPA's endangerment determination with respect to GHGs. As I understand the assignment, the scope is only GHGs, not criteria pollutants.

Keep the questions coming! I can run them up the chain if I don't know the answers, and I am happy to relay any questions you all have to the relevant folks at DOE or other agencies.

For your awareness, I was asked to share the table of contents with the EPA team this evening, which I did (the April 18 version), with the understanding that it is a one-way street (me informing them of your work so they know what's coming, not them sending feedback or micro-managing it). As I assured Steve in the early stages of this work, scientific integrity is paramount, and I will do everything in my power to preserve every word of the document as you all write it. In fact, the EPA team asked that the document be DOE-branded, meaning our true audience is the Secretary of Energy, and he emphasized to me that he wants nothing but science. In other words, the only compromise you have to make in how this is written is among yourselves, not between you all and policymakers, lawyers, or economists.

Thanks again for lending your expertise to this effort, all of you.

Best,  
Travis

On Fri, Apr 18, 2025 at 8:46 PM Judith Curry <[curry.judith@gmail.com](mailto:curry.judith@gmail.com)> wrote:

I have a lot of material already written that should be relevant. I have a draft of the sea level rise section completed, am sending this to my assistant to format, will upload monday.

Roy, let me know if there are sections you can't complete, i may have some text that is already written

On Fri, Apr 18, 2025 at 3:06 PM Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)> wrote:

Good afternoon,



I'm happy to report that I just talked with Judy, and she accepted the mission (in case you're wondering, the vetting issue was a mishap). This is great news because the Secretary wanted all of you to be able to contribute.

Let's make sure to include Judy in all of our correspondence from now on. The documents should be available here: [https://www.dropbox.com/sc/lfo/wahx6lpwzu33m5vyrr8x/ANTU1qAQJ-zXCFzP\\_gsJcOs?rlkey=llz3qj9v46e1t5f4ywwxq7p8c&c=1&dl=0](https://www.dropbox.com/sc/lfo/wahx6lpwzu33m5vyrr8x/ANTU1qAQJ-zXCFzP_gsJcOs?rlkey=llz3qj9v46e1t5f4ywwxq7p8c&c=1&dl=0). Please let us know if you don't have access.

Best,  
Travis

On Fri, Apr 18, 2025 at 4:59 PM Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)> wrote:  
Thanks John. The quote from Mauritsen and Roeckner is a great addition.  
I find the figure hard to follow, whereas the quote makes the point very clearly, in their own words.

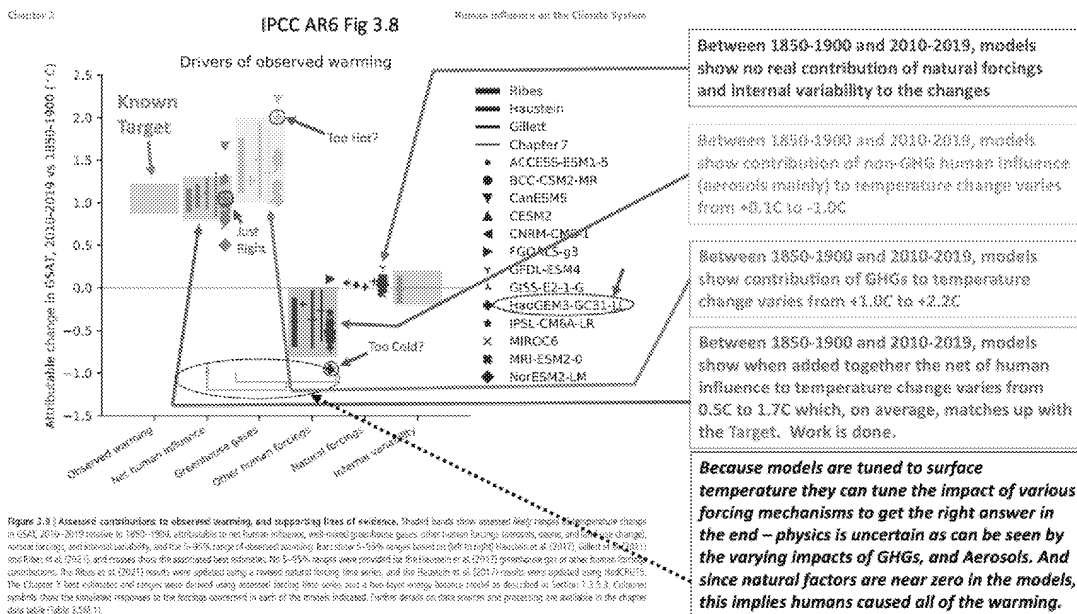
On Fri, Apr 18, 2025 at 4:55 PM John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)> wrote:  
Ross

I've never been successful with dropbox and my record is still intact.

Attached is 1.6.2 to which I added a paragraph.

Also attached is a chart I annotated from AR6. I think this story demonstrates modelers are just playing with tuning parameters. Is there some way to use this information here (not necessarily in this format)?

John C.



On Fri, Apr 18, 2025 at 3:32 PM Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)> wrote:  
I've uploaded a new version of Section 2.2 to your folder. It includes the earlier material quoting all the relevant IPCC and NCA17 stuff and adds some external source information I found. Still needs a brief summary. Others may have more to add.

On Fri, Apr 18, 2025 at 3:05 PM Roy Spencer <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)> wrote:

Ross:

Let me look early in the morning to see which ones I feel like I can knock out the fastest. Our "guidance" has been to start from "scratch", while relying on preexisting materials where it helps. I think I know why we've been told this, but it's not my place to say.

- Roy

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

From: Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>

Date: 4/18/25 10:49 AM (GMT-06:00)

To: Roy Spencer <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)>

Cc: Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>, Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>, John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)>

Subject: Re: I'll need help: 10 sections to go

Sorry Roy, I didn't mean to swamp you, I figured those were sections you already had in the can from previous work. Looking through my own folders I have some material I forgot I had written which I can repurpose. Can you send a list of the sections you are able to do, and the ones you would like to hand off for the time being?

Also to Travis' point we should look to having Judy help some of the sections. Travis, she can be reached via [curry.judith@gmail.com](mailto:curry.judith@gmail.com)

Ross

On Fri, Apr 18, 2025 at 7:40 AM Roy Spencer <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)> wrote:

All:

I don't see how I'm going to do the 10 more sections assigned to me (1.6.1 onward) in the time remaining. Feel free to jump in.

-Roy

---

**From:** Roy Spencer <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)>

**Sent:** Friday, April 18, 2025 6:34 AM

**To:** Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>; Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>

**Cc:** Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>; John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)>

**Subject:** Section 1.4.3 attached

Ross:

I think we should combine sections 1.4.3 and 1.4.4 (attached) which I now call "The carbon cycle, emissions scenarios, and global greening".

I found that all of these need to be discussed together. Feel free to reword the section title.

-Roy

---

**From:** Roy Spencer <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)>  
**Sent:** Thursday, April 17, 2025 6:17 AM  
**To:** Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>; Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>  
**Cc:** Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>; John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)>  
**Subject:** Section 1.4.2 Can climate models reproduce the recent past?

Attached. This is the minimum I think needs to be in this section. Of course, more could be added, but I think we need to stick to our strongest arguments, given the limited time available.

-Roy

---

**From:** Roy Spencer <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)>  
**Sent:** Wednesday, April 16, 2025 7:16 AM  
**To:** Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>; Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>  
**Cc:** Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>; John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)>  
**Subject:** Some Spencer inputs

I took it upon myself to write a preamble in **Section 1.3 Drivers of climate change** (attached), which seemed necessary to introduce some basic concepts.

Also attached are my initial submissions for **1.3.2** and **1.3.3**.

**NO references** added yet.

One of the things I believe we need to watch out for is *neglecting to come to conclusions along the way*... There is a tendency to get mired in the technical details without getting around to saying what each section might mean in eventual policy decisions related to the Endangerment Finding. In my experience, it is not possible to dumb-down this stuff too much. I suggest some sort of "Summary Boxes" with 1-2 simplified statements highlighting a main conclusion of each section that would have policy relevance.

-Roy

---

**From:** Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>  
**Sent:** Monday, April 14, 2025 1:37 PM  
**To:** Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>  
**Cc:** Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>; John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)>; [roywspencer@hotmail.com](mailto:roywspencer@hotmail.com) <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)>  
**Subject:** Re: Kickoff

Hi Travis

We developed the outline a bit further and assigned sections out yesterday. We'll keep you cc'd going forward.

Here is a Dropbox link that contains the current outline (also attached) which indicates who is working on each section

[https://www.dropbox.com/sc/fo/wahx6lpwzu33m5vyri8x/ANTU1qAQJ-zXCFzP\\_gsJcOs?rlkey=1l z3qj9v46e1t5f4ywwxq7p8c&dl=0](https://www.dropbox.com/sc/fo/wahx6lpwzu33m5vyri8x/ANTU1qAQJ-zXCFzP_gsJcOs?rlkey=1l z3qj9v46e1t5f4ywwxq7p8c&dl=0)  
The link should give you all editing privileges.

I put folders in there for each of us. If the use of that Dropbox (which is on my own account) is acceptable for this project then we can share our work using it. Otherwise once we have an official Dropbox created we can transfer the material over to it.

Do you think it would be helpful to have a section specifically addressing the question of whether CO2 is a pollutant like CO, NOx, SOx, PM, etc.? If you want to add topics or suggest changes please do, the earlier the better as we begin filling out the contents.

Cheers,  
Ross

On Mon, Apr 14, 2025 at 2:12 PM Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)> wrote:

This is an excellent start! Can we move forward by iterating with this document for now? Please feel free to add whatever material you like, and I can collate if there are any simultaneous changes. I will leave the substance to you all because I view my role as a facilitator rather than a contributor, but please let me know how I can be most helpful.

Steve is correct that this document should be clear and understandable for non-experts. My understanding is that it should also be sufficiently technical and comprehensive to inform policymakers on all relevant aspects of the science.

One area I can help with might be targeting your work for the very brief window we have open at the moment. I am including a few lines verbatim below from key documents to highlight the areas of inquiry that are most relevant to the policymaking process. Of course, you all should make your own judgments about what to include versus what to leave out.

Here is a key section of the Clean Air Act, 202(a)(1): "The Administrator shall by regulation prescribe (and from time to time revise) in accordance with the provisions of this section, standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines, which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare. Such standards shall be applicable to such vehicles and engines for their useful life (as determined under subsection (d), relating to useful life of vehicles for purposes of certification), whether such vehicles and engines are designed as complete systems or incorporate devices to prevent or control such pollution."

Section 202 can be found [here](#).

Here is another key section of the Clean Air Act, section 302(g): "The term 'air pollutant' means any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive (including source material, special nuclear material, and byproduct material) substance or matter which is emitted into or otherwise enters the ambient air. Such term includes any precursors to the formation of any air pollutant, to the extent the Administrator has identified such precursor or precursors for the particular purpose for which the term 'air pollutant' is used."

A threshold question raised in Justice Scalia's dissent in *Mass v. EPA* (which can be found [here](#)) is whether CO2 falls under the definition of an "air pollutant" under the Clean Air Act. The majority in *Mass v. EPA* found that *any* compound emitted into the ambient air fits the definition of "air pollutant,"

leading to a colorful footnote in the Scalia dissent ("It follows that everything airborne, from Frisbees to flatulence, qualifies as an 'air pollutant.' This reading of the statute defies common sense."). A scientific interpretation of this definition could be very helpful.

The next section in the statute is 302(h), which defines effects on welfare: "All language referring to effects on welfare includes, but is not limited to, effects on soils, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility, and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being, whether caused by transformation, conversion, or combination with other air pollutants." Positive impacts, including fertilization effects and beneficial warming, seem to be within scope here.

Section 302 can be found [here](#).

As you all develop the draft, I encourage you to include as many citations to published materials as possible (links would work fine as placeholders). I have found this works better under a tight timeline than going back and looking for sources later. Please also feel free to task me with any research help you might need.

Best,  
Travis

On Fri, Apr 11, 2025 at 8:10 PM Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)> wrote:

I assume we're writing for non-experts. If so, some educating beyond the root questions is in order (it always helps if people feel smarter after reading).

So I've taken Ross' material, added some broader context, and cast it into the forcing/response/impact syllogism that most non-experts seem to get. The result is attached.

I think we can deal with the differences relative to 2009 in an appendix.

SEK

---

**From:** John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)>

**Sent:** Friday, April 11, 2025 6:34 PM

**To:** Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>

**Cc:** Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>; [steven.koonin@gmail.com](mailto:steven.koonin@gmail.com); [roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)

**Subject:** Re: Kickoff

Excellent list Ross. Wildfires are a significant topic to be addressed.

John C.

Sent from my iPhone

On Apr 11, 2025, at 4:05 PM, Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)> wrote:

The attached represents my summary of the most questions needing to be answered, which I think this group is capable of answering in the next couple of weeks. Probably lots of material already in hand.

On Fri, Apr 11, 2025 at 4:24 PM Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)> wrote:

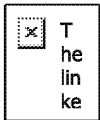
Gentlemen,

I can't thank you enough for taking this on under such a tight timeline. Let's use this thread to exchange information, links, etc., and as we move forward, I'll see about a document-sharing platform and a shared document to work on simultaneously.

Best,  
Travis

<DE.memo.outline.Apr.11.[RM].docx>

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Judith Curry, President  
CFAN - Climate Forecast Applications  
Network  
Reno, NV USA  
[curry.judith@cfanclimate.com](mailto:curry.judith@cfanclimate.com) |  
+1.404.803.2012  
<http://www.cfanclimate.net>

---

**From:** Travis Fisher <travis.scott.fisher@gmail.com>  
**Sent:** Tuesday, July 1, 2025 9:36 PM  
**To:** Ross McKittrick  
**Cc:** Judith Curry; Steven Koonin; John Christy; Roy W. Spencer; Josh Loucks; Seth Cohen  
**Subject:** Re: June 27 version of CWG report

We'll have a lot to discuss on Thursday!

For everyone's awareness, the draft notice of proposed rulemaking from EPA was circulated earlier today for interagency review. I expect more media questions to come given that the news of the policy change likely won't stay under wraps for long. I appreciate the close hold you all have had on this issue.

I'll elaborate on the process going forward and timelines etc. on our call. All I can say right now is rest assured your services will be in demand for the long haul!

On Tue, Jul 1, 2025 at 9:26 PM Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)> wrote:  
She didn't contact me.

On Tue, Jul 1, 2025 at 8:28 PM Judith Curry <[curry.judith@gmail.com](mailto:curry.judith@gmail.com)> wrote:  
likewise. Odd that she contacted all three of us?

On Tue, Jul 1, 2025 at 3:33 PM Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)> wrote:  
Same here.

Steven E. Koonin

On Jul 1, 2025, at 18:22, John Christy <[climatemanager60@gmail.com](mailto:climatemanager60@gmail.com)> wrote:

All

Just turned down a request from a NY Times reporter to comment on the EF. Maxine Joselow.

John C.

On Tue, Jul 1, 2025 at 2:25 PM Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)> wrote:

Now with some time back from vacation, I've gone through this version of the CWG report.

Suggested changes in the attached are mostly typos and minor wording. The few of more substance are highlighted in yellow with COMMENTS IN CAPS.

It IS a very good document. It will be interesting to see how it's received.

SEK

---

**From:** Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>  
**Sent:** Friday, June 27, 2025 9:49 PM  
**To:** Judith Curry <[curry.judith@gmail.com](mailto:curry.judith@gmail.com)>; Roy W. Spencer <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)>; John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)>; Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>; Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>; Josh Loucks <[loucksj14@gmail.com](mailto:loucksj14@gmail.com)>; Cohen, Seth <[seth.cohen@hq.doe.gov](mailto:seth.cohen@hq.doe.gov)>  
**Subject:** June 27 version of CWG report

All errata fixed including Fig 5.7, all metadata listed.

Have a nice weekend everyone.

--



Judith Curry, President  
CFAN - Climate Forecast Applications Network  
Reno, NV USA  
[curry.judith@cfanclimate.com](mailto:curry.judith@cfanclimate.com) | +1.404.803.2012  
<http://www.cfanclimate.net>



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**From:** Ross McKitrick [ross.mckitrick@gmail.com]  
**Sent:** 5/19/2025 11:05:45 PM  
**To:** Roy Spencer [roywspencer@hotmail.com]  
**CC:** Travis Fisher [travis.scott.fisher@gmail.com]; Steven Koonin [steven.koonin@gmail.com]; judith curry [curry.judith@gmail.com]; John Christy [climateman60@gmail.com]  
**Subject:** Re: update  
**Attachments:** 0.Template.May18.docx

Travis,  
Here's my suggestion for the template. Titles, group name, etc are placeholders until finalized.  
The headings are linked up so if you insert a new one it will automatically renumber chapters and subsections.  
Also the table of contents can be updated by right-clicking and selecting Update field.  
Cheers,  
Ross

On Mon, May 19, 2025 at 6:18 PM Ross McKitrick <[ross.mckitrick@gmail.com](mailto:ross.mckitrick@gmail.com)> wrote:  
It was a very good, very productive meeting. I'll send the template this evening.  
Ross

On Mon, May 19, 2025 at 5:19 PM Roy Spencer <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)> wrote:  
I think it was AWESOME. We should do it EVERY DAY.

But seriously, folks, I'm honored to be part of this group.

-Roy

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

From: Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>  
Date: 5/19/25 4:14 PM (GMT-06:00)  
To: Ross McKitrick <[ross.mckitrick@gmail.com](mailto:ross.mckitrick@gmail.com)>  
Cc: Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>, judith curry <[curry.judith@gmail.com](mailto:curry.judith@gmail.com)>, John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)>, Roy Spencer <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)>  
Subject: Re: update

How was the marathon review?

Ross, would you share the report template you want to use? Josh and I will start adding near-final material as soon as we get the green light from this group.

On Mon, May 19, 2025 at 9:58 AM Ross McKitrick <[ross.mckitrick@gmail.com](mailto:ross.mckitrick@gmail.com)> wrote:  
Thanks Steve. I renumbered the chapter sections etc. to Ch 5 and put it in the folder for today's meeting. Also since you asked for the tropical amplification material to be shrunk to a single figure (which I'd been meaning to do anyway but hadn't got to it yet) I went ahead and made the change.

See you all shortly.

On Mon, May 19, 2025 at 9:29 AM Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)> wrote:

I have uploaded my comments/edits on Chapter 6 to the "Final Comments" Dropbox folder (also attached).

Looking forward to our marathon zoom session starting in about an hour.

SEK

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**From:** Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>

**Sent:** Sunday, May 18, 2025 4:54 PM

**To:** Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>

**Cc:** Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>; judith curry <[curry.judith@gmail.com](mailto:curry.judith@gmail.com)>; John Christy <[climateman60@gmail.com](mailto:climateman60@gmail.com)>; Roy Spencer <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)>

**Subject:** Re: update

I agree with Ross that the central point made in Chapter 1 (that CO2 is not directly harmful to humans at ambient concentrations) is a big one. That said, the last paragraph of Chapter 1 functions a bit like an introduction, so maybe we could parse these out and keep a stand-alone chapter on the main point while moving the last P of Chapter 1 to the introduction? It reads:

The growing amount of CO2 in the atmosphere directly influences the earth system by promoting plant growth (global greening), thereby enhancing agricultural yields, and also by neutralizing ocean alkalinity. But the primary concern about CO2 is its role as a greenhouse gas (GHG), that alters the earth's energy balance. How the climate will respond to that influence is a complex question that will occupy much of this report.

Chapter 2 then discusses the "direct impacts" of CO2 on the environment, namely global greening and reduced ocean alkalinity. To the untrained reader (people like me), it might seem like you all are distinguishing between temperature and non-temperature impacts (or energy and non-energy impacts), and that you deem temperature impacts to be distinct from "direct" impacts. I note this for two reasons: 1) if that wasn't the intent, perhaps you could add some clarity in the introduction, and 2) if that was the intent, you could explain why you're saving the warming/RF for later discussion. (Most people expect to see the big-ticket item up front.)

If temperature change / RF is a direct impact, I'd recommend saying something like "we note three broad categories of direct impacts from increased CO2 concentrations: global greening, reduced alkalinity of the oceans, and increased radiative forcing. We touch on the first two briefly in Chapter 2 before discussing anthropogenic radiative forcing in Chapter 3. Then we take a deeper look at the climate's response to increased CO2 concentrations in Chapters 4 through X [Part 2]." [You could also set up Part 3 in the introduction and explain how you see the different parts of the report as covering different themes.]

On Sun, May 18, 2025 at 4:32 PM Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)> wrote:

On the preface: First, technically it's not a foreword, which is front matter written by a non-author (in this case, the Secretary). A "preface" is something written by the authors (us). Both of them are distinct from the Introduction (guess we all know what that is).

I'd like our foreword to be a more personal statement, incorporating some of the material now in the section called "Intro". I'll come back with a draft of that tomorrow. But I'd note now that I'd like it welcome community response, both to simulate an open dialog and to model behavior missing from IPCC/NCA/...

Meanwhile, I think the material now in Chap 1 would work very well as the ending of the Introduction.

SEK

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**From:** Ross McKittrick <[ross.mckittrick@gmail.com](mailto:ross.mckittrick@gmail.com)>

**Sent:** Sunday, May 18, 2025 4:22 PM

**To:** judith curry <[curry.judith@gmail.com](mailto:curry.judith@gmail.com)>

**Cc:** Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)>; John Christy <[climatemanager60@gmail.com](mailto:climatemanager60@gmail.com)>; Travis Fisher <[travis.scott.fisher@gmail.com](mailto:travis.scott.fisher@gmail.com)>; Roy Spencer <[roywspencer@hotmail.com](mailto:roywspencer@hotmail.com)>

**Subject:** Re: update

I like chapter 1 on its own even though it's very brief. I don't think the material fits anywhere else and it makes an important point.

On Sun, May 18, 2025 at 4:12 PM judith curry <[curry.judith@gmail.com](mailto:curry.judith@gmail.com)> wrote:

I think we should lose chapter 1 and incorporate in preface

Sent from my iPhone

On May 18, 2025, at 12:44 PM, Steven Koonin <[steven.koonin@gmail.com](mailto:steven.koonin@gmail.com)> wrote:

I've now been through almost all the May15 chapters in the 01.Report Draft folder.

My comments/edits on each are in the files in the "Final Comments" Dropbox folder.

Many of my suggested edits are aimed at clarifying and tightening language, but some are substantial.

I've done little in those chapters I've reviewed before, but there's a lot in others where I've not yet had a chance to weigh in.

A major missing yet is the Model v Observations chapter, which I'll get to before we start tomorrow.

Also will weigh in on the new albedo and emissions text and offer something about the Preface

SEK