

Recommendation from the
Sunset committee is to
discontinue operations at Nauru
as of December 2007

Does anybody feel this is a great
loss?

Statistical Summaries of ARM Data for Climate Modelers

Ric Cederwall, Betsy Horwedel,
Stephen Klein, Raymond McCord,
Renata McCoy, Giri Palanisamy,
Warren Wiscombe, Shaocheng Xie

Motivation

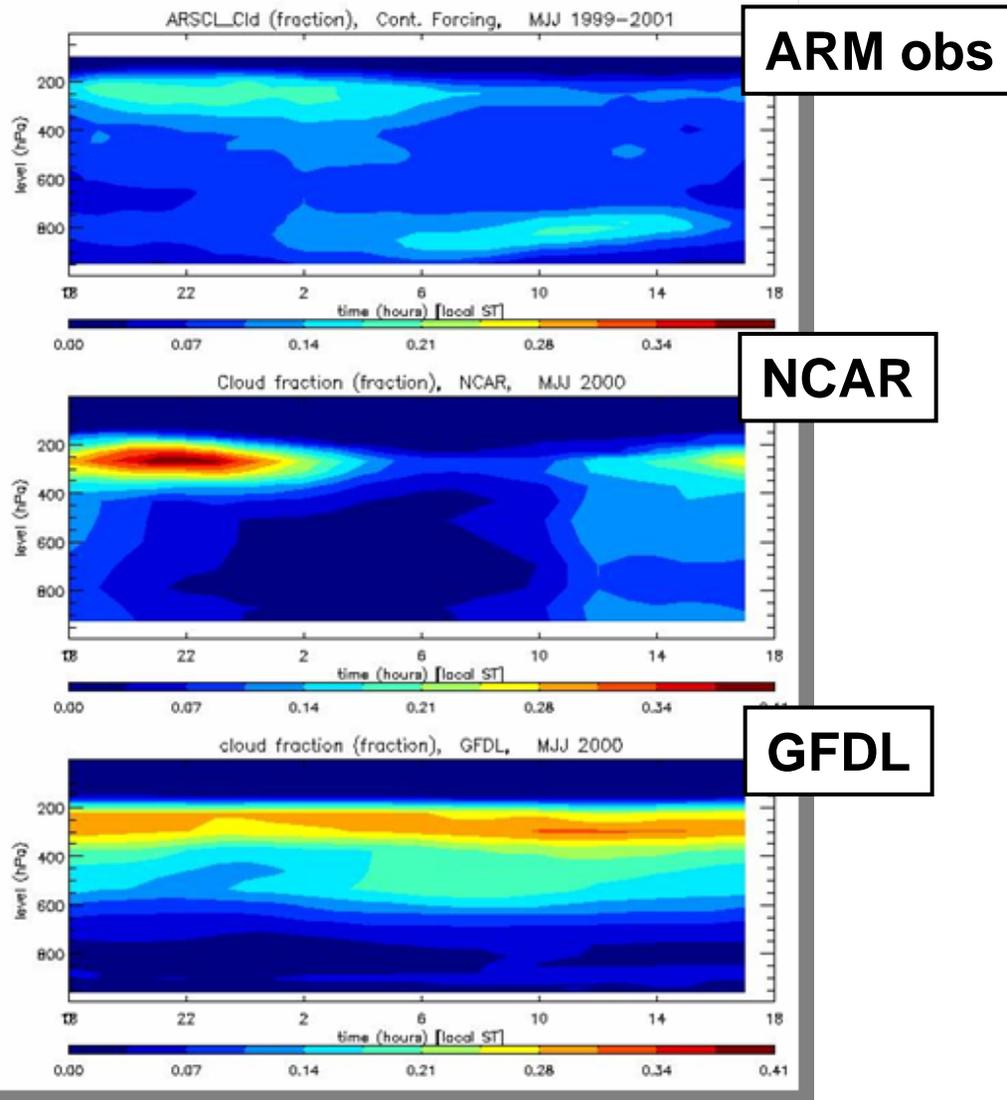
- Warren Wiscombe and the Chief Scientist Team visited the US climate modeling centers in 2006 and asked “How can ARM better serve your needs?”
- One item that grew out of the feedback was a need for greater ease in accessing ARM data in forms that would not require long hours of learning ARMese and/or digging around the Archive to find what you really want

‘Statistical Summaries’ concept

- Provide easier access to ARM data in an exploratory form that would encourage further exploration
- Work with highly polished data that cover the longest periods of time
- Allow for easy viewing and/or exploration of the data through a web interface
- Potentially allow for download of ‘Statistical Summaries’ and related data

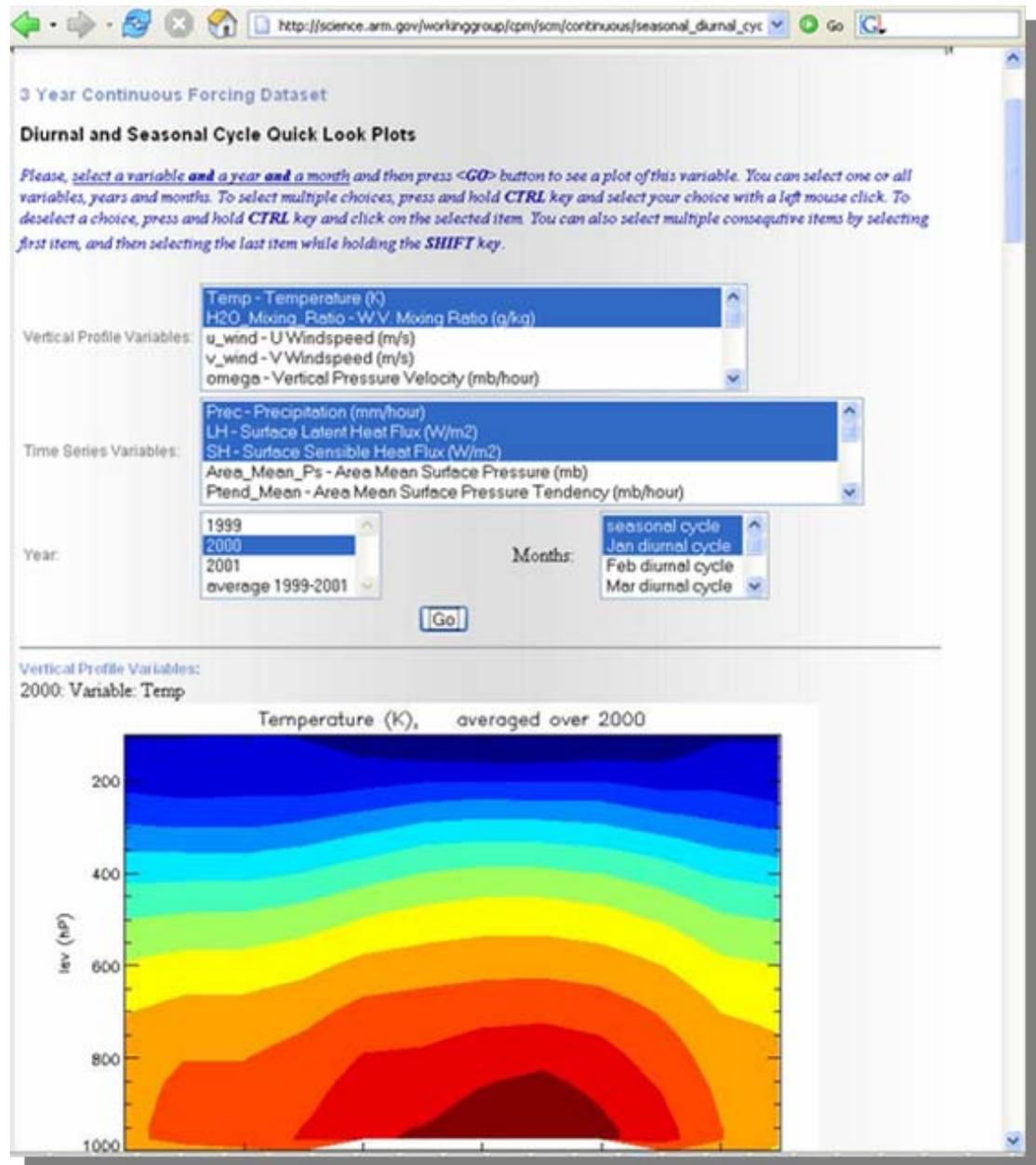
CMWG Prototype

- Currently using the 3-year database of ARM SGP observations contained in the 'Continuous forcing'
- Also have monthly means, seasonal cycles and histograms of hourly data



Cloud Fraction diurnal cycle

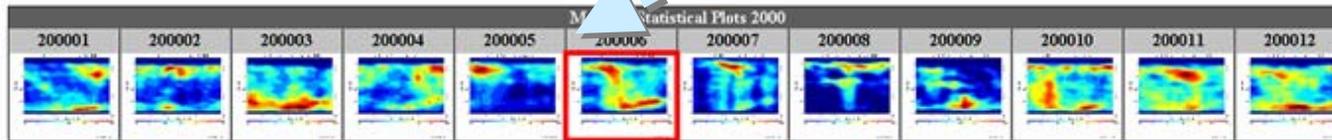
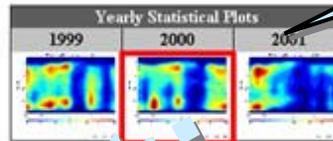
Interactive CMWG Web Page



ARM Archive Web Page

Data Plot Information and Data Extraction for *Cloud frequency (cloud o*

Click yearly plot to view monthly plots



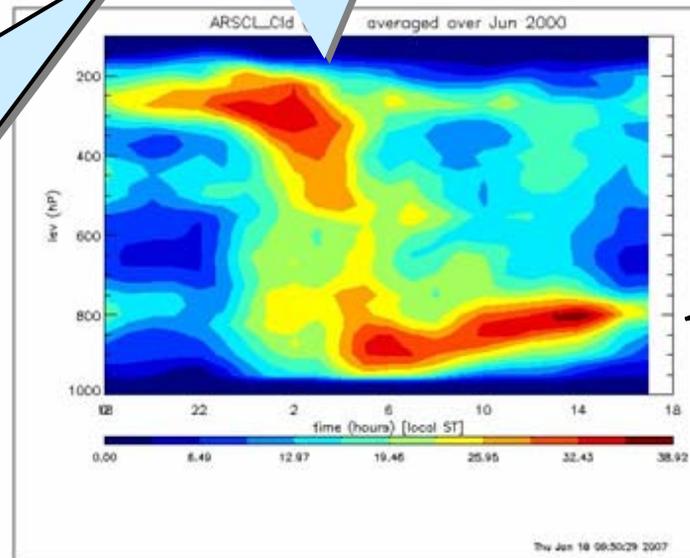
Data Plot

Get Statistics Get Data for the Selected Range Get ARM Data Files

[display yearly statistical plot](#)

Click here to go back to yearly plot

Click appropriate button to get statistics data, measurement data or order ARM data files (proposed future functions)



Detailed data plots for the clicked thumbnail will be displayed here

Possible Future Directions

- Assemble 'Best of ARM Dataset for Climate Modelers' – e.g. hourly resolution at each site from the start of the program of a few variables – surface radiation, ARSCL cloud fraction, LWP...
- Develop the capability to
 - browse data from ARM web page (without needing a password/account)
 - download the data and/or image of the summary (e.g. diurnal cycle or seasonal cycle of some variable)
 - perform 'on the fly' calculations from the web page (e.g. scatter plots, conditional sampling of the data)

We Need Your Feedback

- Please stop by Renata McCoy's poster or talk to any of us informally
- Web Pages
 - CMWG page
http://science.arm.gov/wg/cpm/scm/statistical_summaries.html
 - ARM Archive page
<http://www.archive.arm.gov/arm/stattnb.jsp>