January 16, 2008: Introduction

1. Why are we so interested in decadal climate variability anyway?
2. A reasonable null hypothesis
3. Patterns: analysis of historical and paleodata
4. Mechanisms; an alternate hypothesis and synthesis
5. Course structure and logistics; about me; about you
6. Homework: readings for next week (23rd); short survey
Motivation: impacts and predictability

India: 1880s-1900s

Mid/southwest US: 1930s

Sources: (Davis) Verso Press, 2001; (Dust Bowl) Farm Security Administration-Office of War Information photographic archive [http://memory.loc.gov/ammem/fsahtml/fahome.html]
A reasonable null hypothesis

Huybers and Curry, Nature
441 (2006) doi:10.1038/nature04745

- Is decadal climate variability the result of unique processes?
Observations: historical data

I-COADS v2.0 project (Worley et al., 2005; http://icoads.noaa.gov/r2.html)

key: blue ~5/month; green ~15/month; red =>30 obs/month
Observations: proxy data

coral data, Kiritimati Island (157W, 2N)


Locations of high resolution proxy data series available for reconstruction of past climates (WDCA, 2004; Evans and Schrag 2004)
Mechanisms

Quadrelli and Wallace, J. Climate 17:3728-3744 (2004), Fig. 4; space defined by first and second EOF patterns of NH SLP for DJFM anomalies poleward of 20N.
About the course

Course webpages: http://ic.ltrr.arizona.edu/ic/dv/

readings userid: ag595c
readings password: spr2008
About me

my webpages: http://ic.ltrr.arizona.edu/
About you
For next time

• Complete course questionnaire
• New meeting time: 12:30-1:45p
• Readings: see course webpages
  http://ic.ltrr.arizona.edu/ic/dv/
• userid: ag595c, password: spr2008 (case sensitive)
• readings/website update later this afternoon/evening