KT Breakout Session

Leo Donner
1. Book wrap up
2. A Climate Process Team (CPT) for Cloud Parameterization and Aerosol Indirect Effects

Wayne Schubert
1. Brief remarks on CPT and KT to mesoscale NWP activities involving Steve Krueger, Tak Yamaguchi and Pete Bogenschutz

Levi Silvers
1. Topographically bound balanced motions

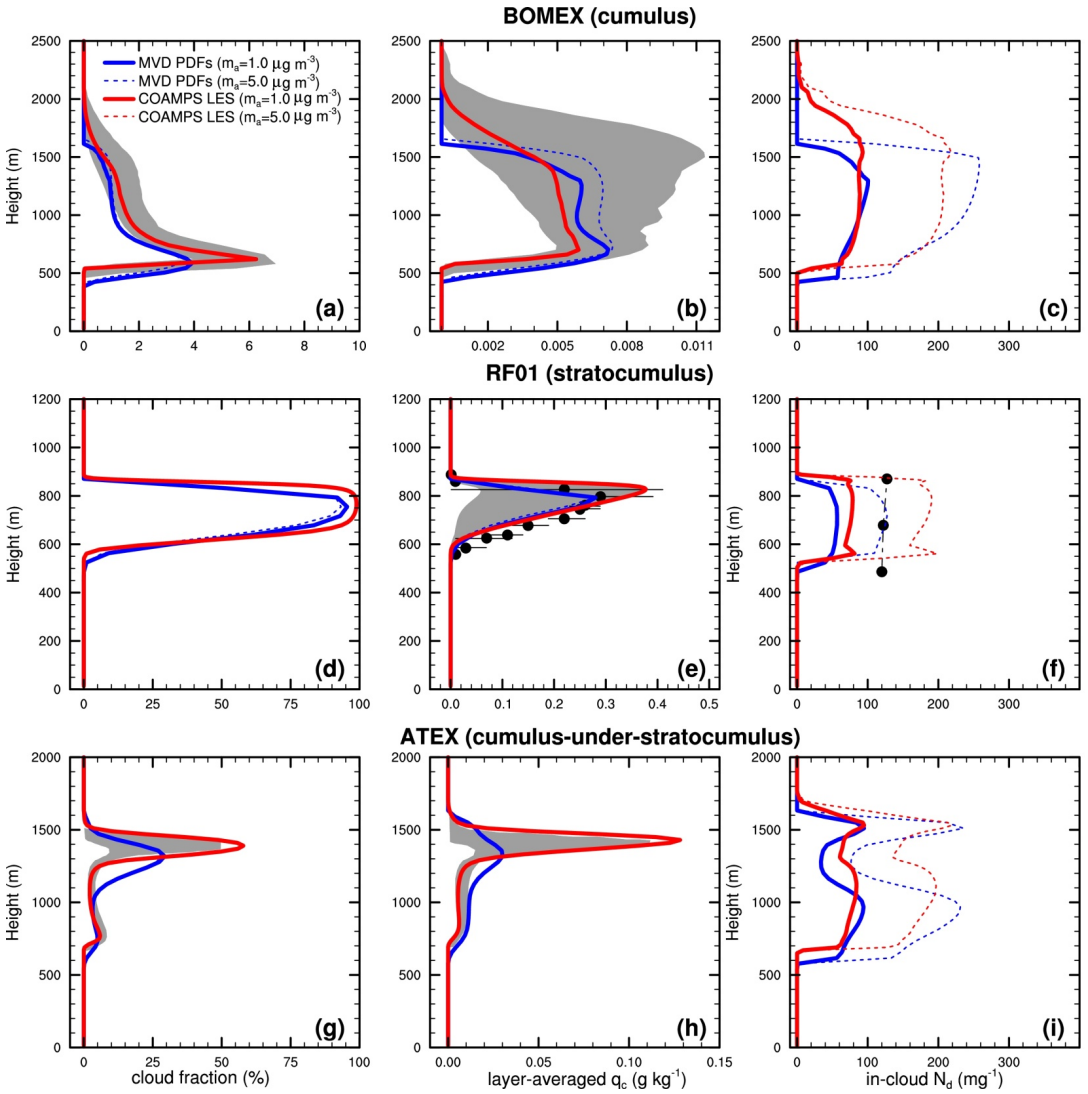
Rodger Ames
1. JAMES becomes an AGU Journal
2. New online magazine for public outreach, *ClimateSense*

Book Status

- In stock in Cambridge, UK, warehouse
- Due in US in 3 to 5 weeks
- Available for sale on CUP web-site
- Price around $75-$80
- “Hot” Item? Proof copy stolen from CUP booth at AGU in San Francisco!

Overview: Progress Since August 2010 CMMAP

- Using multi-variate probability density functions with dynamics to parameterize boundary layers and clouds
- PDFs of vertical velocity and cloud drop number for Sc, shallow Cu GCSS cases
- Cloud macrophysics for Sc, shallow Cu
- Aerosol indirect effects for Sc, shallow Cu



Gray shade: LES range
Dots: Observation

from Guo *et al.* (2010, Geosci. *Mod. Dev.)*

Summary

- MVD PDFs successfully simulate cloud fraction, water path, and droplet numbers for Sc and shallow Cu GCSS cases
- MVD PDFs indicate both positive and negative indirect effects on LWP
- Critical to evaluate MVD PDF methods against LES and observations with aerosols

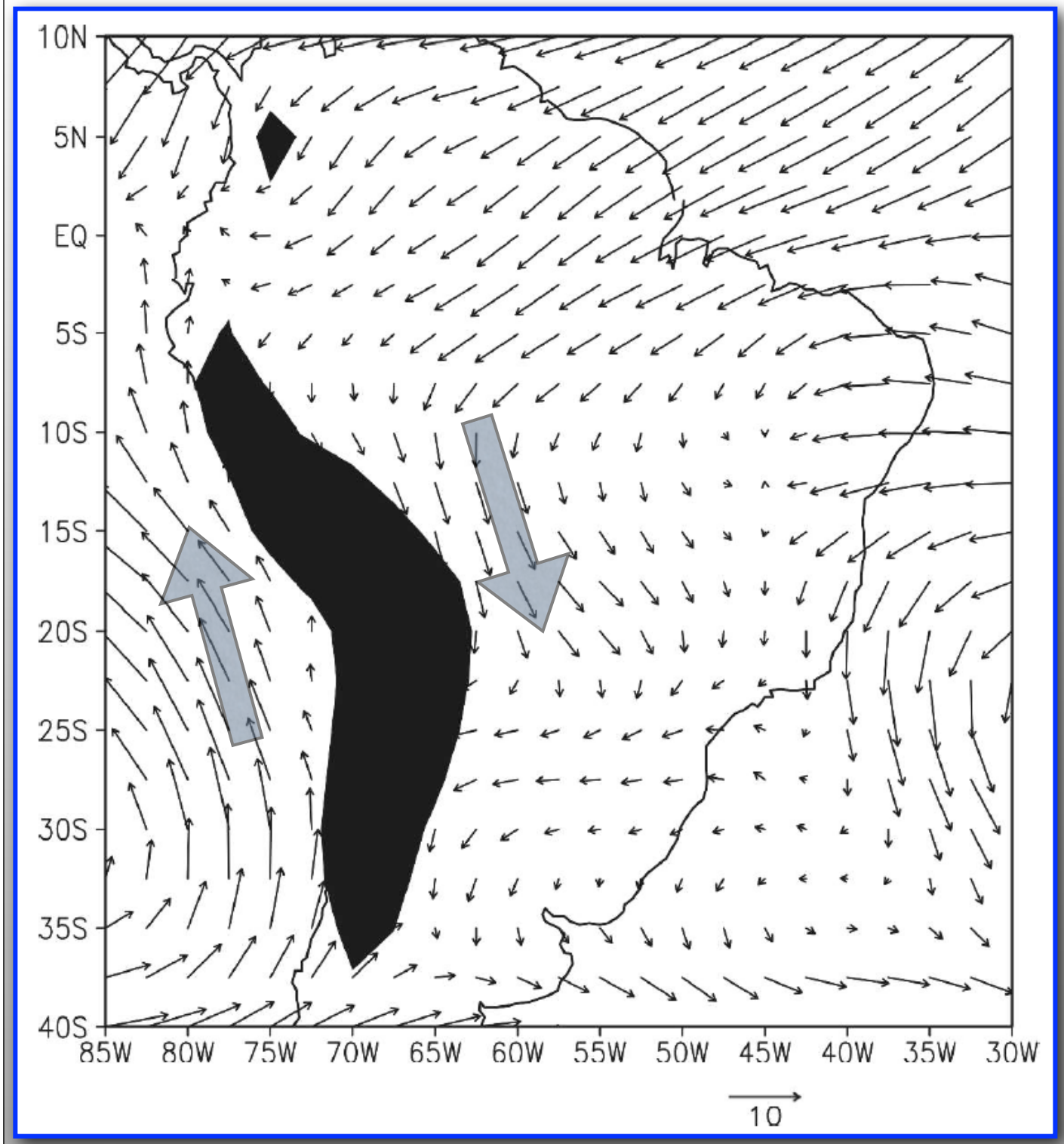
Topographically Bound Balanced Motions

Levi Silvers Matthew Masarik Wayne Schubert

CMMAP Meeting
12 January 2011

WORKSTATION POWERED hp invent

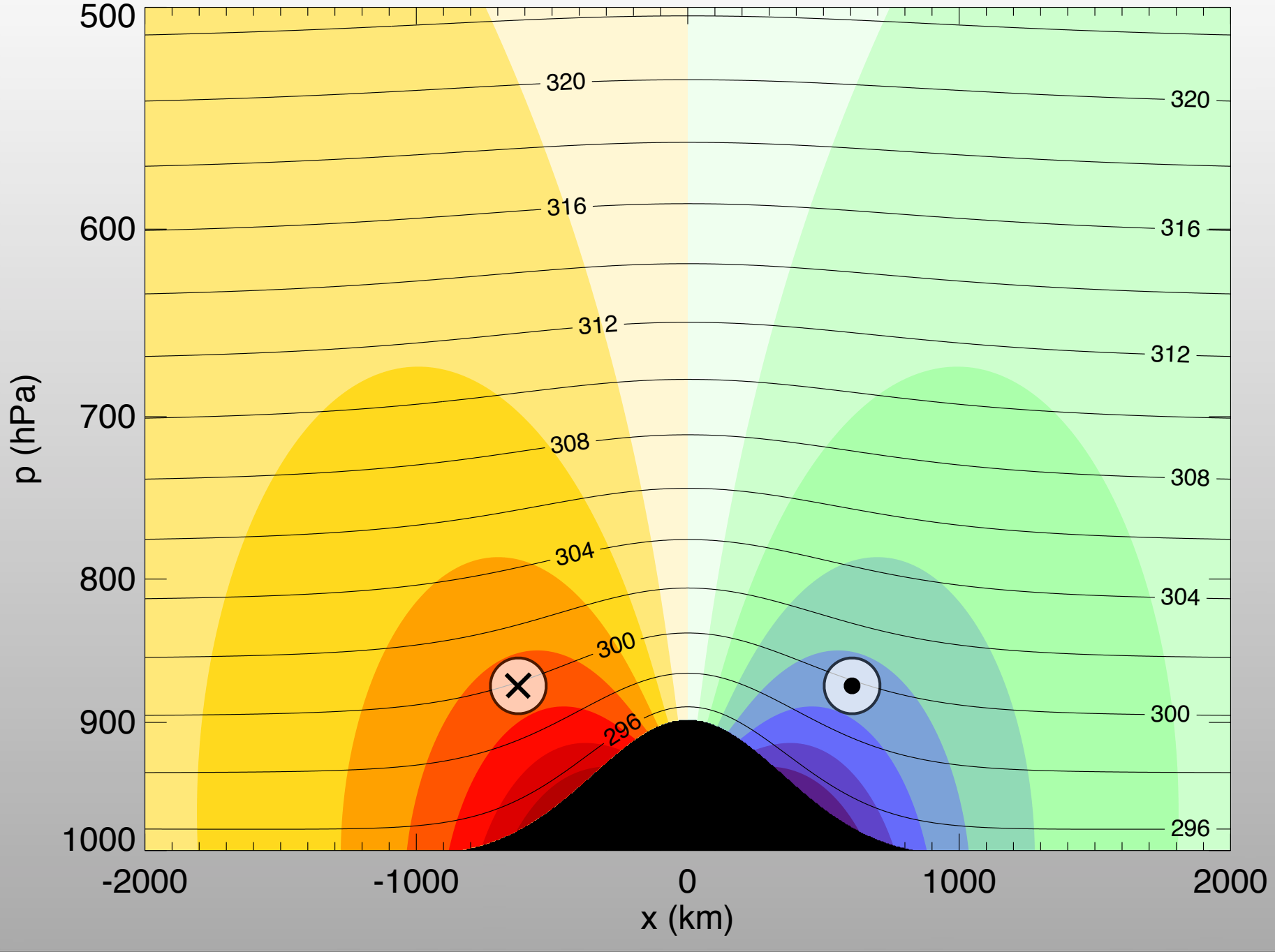
Colorado State University



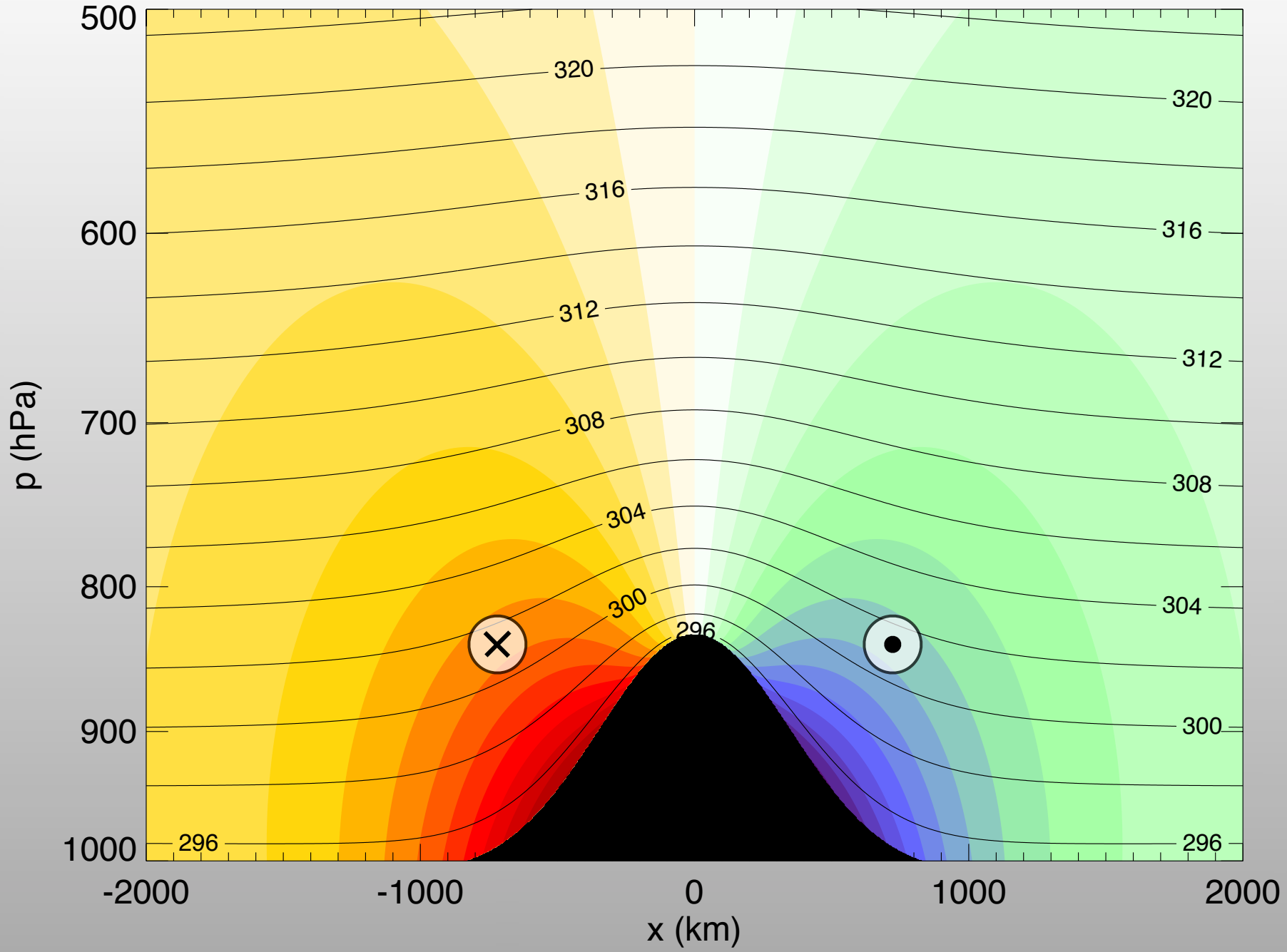
Jan 2003 Mean 925 hPa Wind Over South America

- Note the strong cyclonic flow centered near the Andes
- Involves 2 low level jets:
  - South American Low-Level Jet (SALLJ)
  - Coastal LLJ

Isentropic Mountain with H = 1000 m



Isentropic Mountain with H = 1700 m



Summary & Conclusions

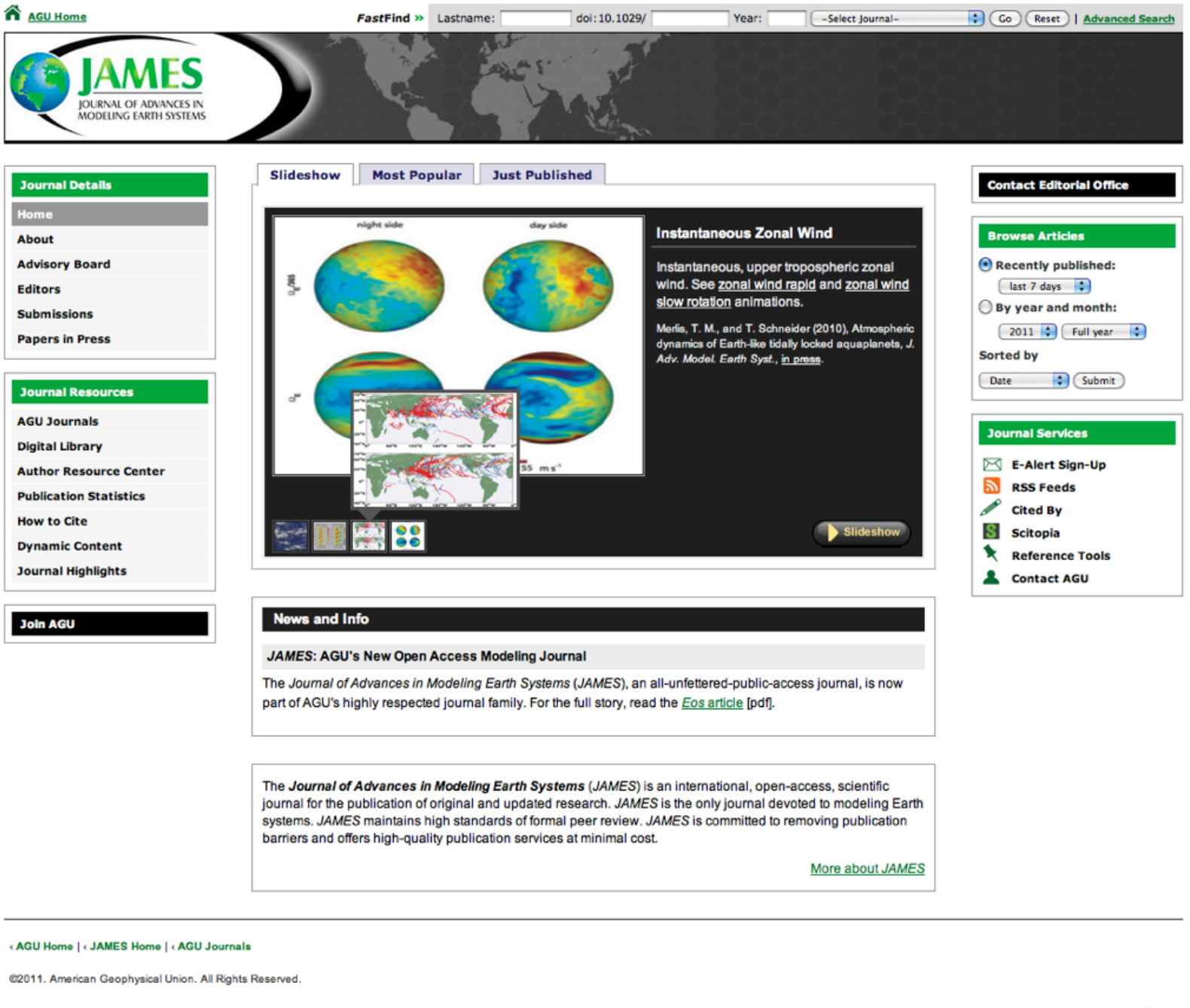
- The SALLJ and Coastal LLJ are not separate entities
- We anticipate that a balanced response to diabatically heated topography can explain such jets
- We have confirmed Eliassen's solutions for isentropic mountains
- Massless layers are a necessary ingredient in this approach
- Generalization of these results to the sphere and the use of more realistic topography will allow for more direct comparison with observations
- Concerning Knowledge Transfer, these analytical solutions can form the basis for the comparison of GCM solutions having a variety of horizontal and vertical discretizations

✓Officially announced at the Fall AGU Meeting in SF

✓Editors remain the same

✓Focus, policies, and journal description unchanged

✓Benefits: increased exposure, AGU's publishing experience



http://www.agu.org/journals/ms/

ClimateSense

A publication for multi-disciplinary articles related to the Earth's climate

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Create an online magazine for public outreach

- Mission: To foster cross-disciplinary conversations about current topics related to climate change, and to promote climate literacy among university students, scientists and scholars, and the broader general public.
- Planning group provided input and helped draft description
- Initial website created

Coming soon
http://climatesense.org