

The Case for an ACP
Field Effort on an Island:
Puerto Rico in 2001 or 2002?

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Some Field Study Possibilities include:

Urban Plume Impacts – Winds well defined

Urban/Regional Scale Model Testbed

Sea Salt Aerosol Chemistries – Cl ?

Nighttime Chemistry – NO_3 , etc.

Natural Hydrocarbons – Organic Aerosols, NO_3 , Cl,

Combined EMP/ACP study of Boundary Layer

Cloud effects – Heterogeneous Chemistry

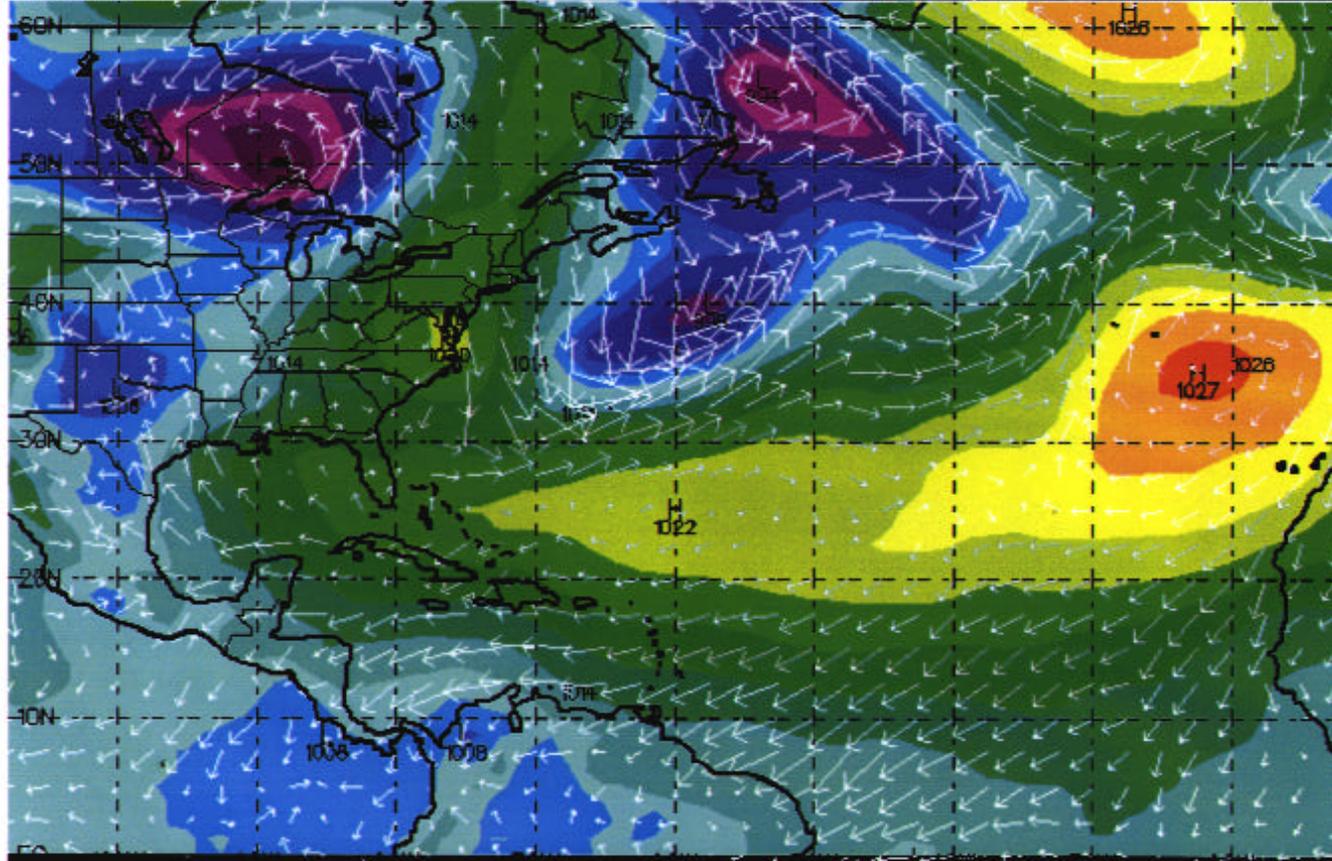
Radiative effects of aerosols and clouds on air chemistry

Why Puerto Rico?

1. Trade Winds – Easterly – North Easterly at Coast
2. 100x35 mile geometry – G-1 Friendly
3. Tropical – lots of photons
4. Terrain – 4,390 ft max. elevation – PBL work
5. San Juan – 3.5 million – Urban Plume
6. Other Collaborators – NSF, USPS, NAVY, EPA, ???
7. U.S. Commonwealth – Rain Forests
8. Interested Universities – Students, Faculty, Collaborators

1000 mb Winds (m/s)
Sea level Pressure (mb)

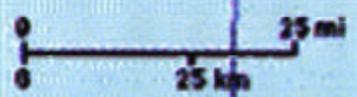
AVN analysis for 0000Z 9 FEB 99
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PUERTO RICO

United States



Atlantic Ocean

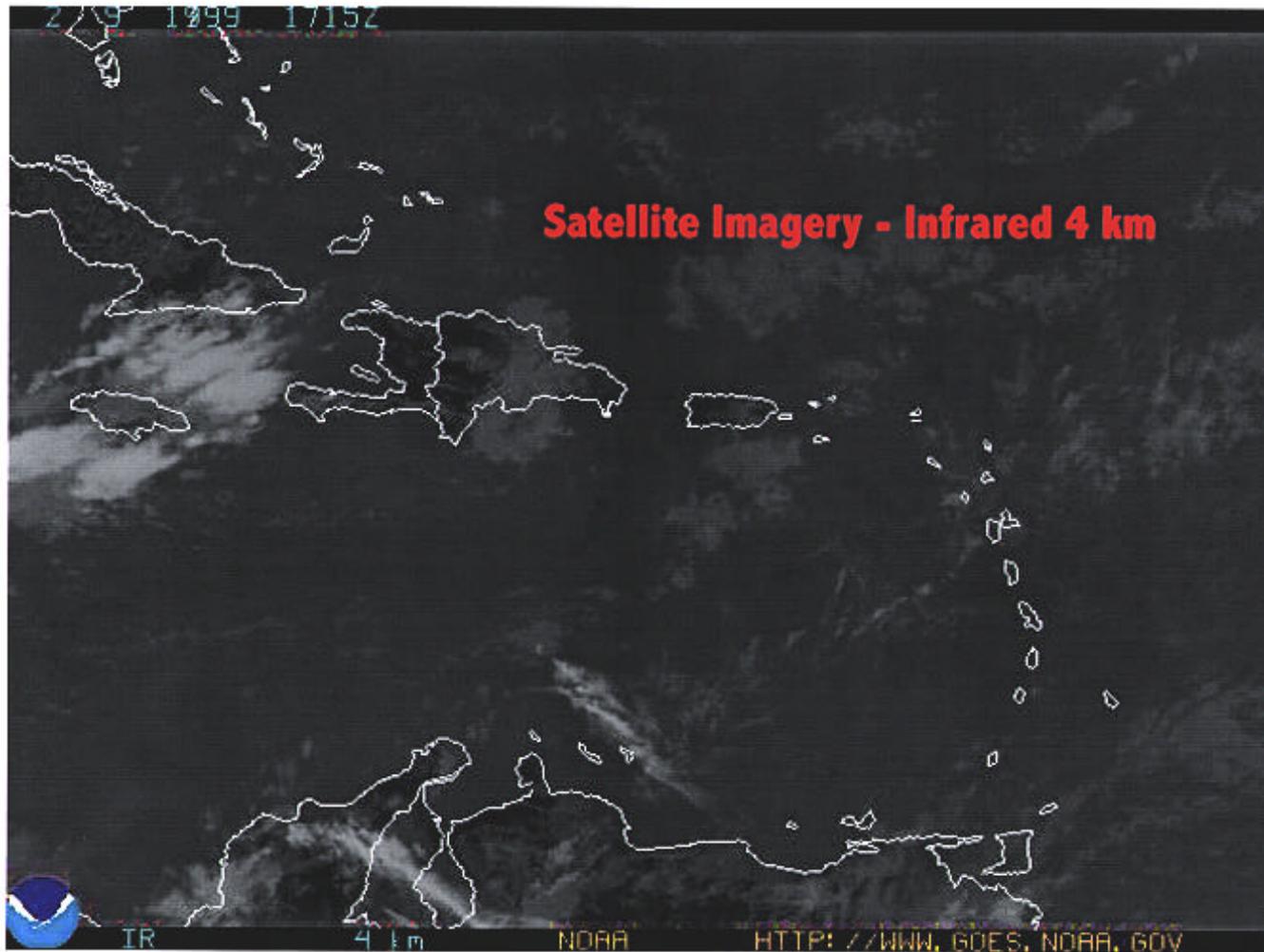


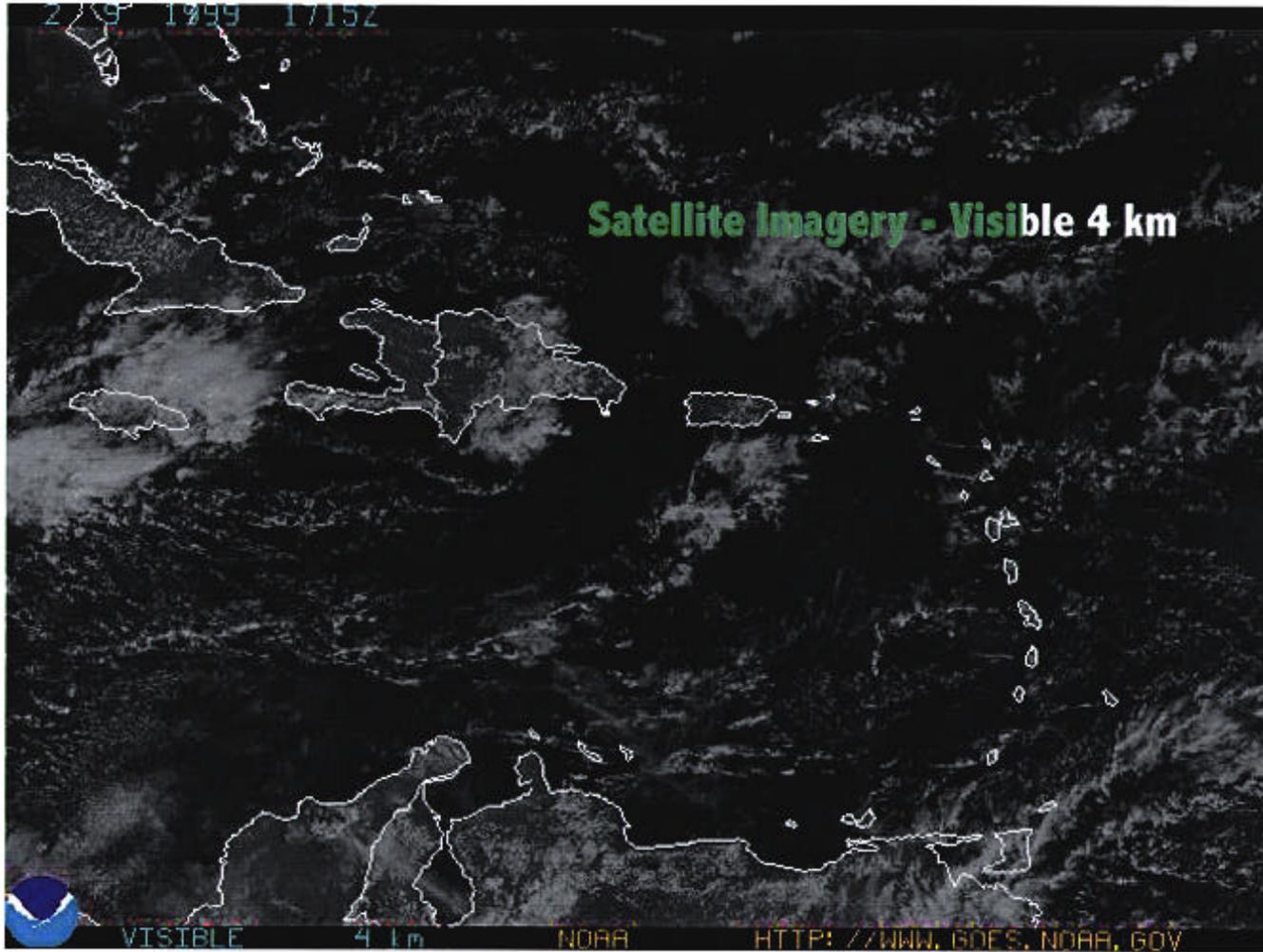
Caribbean Sea





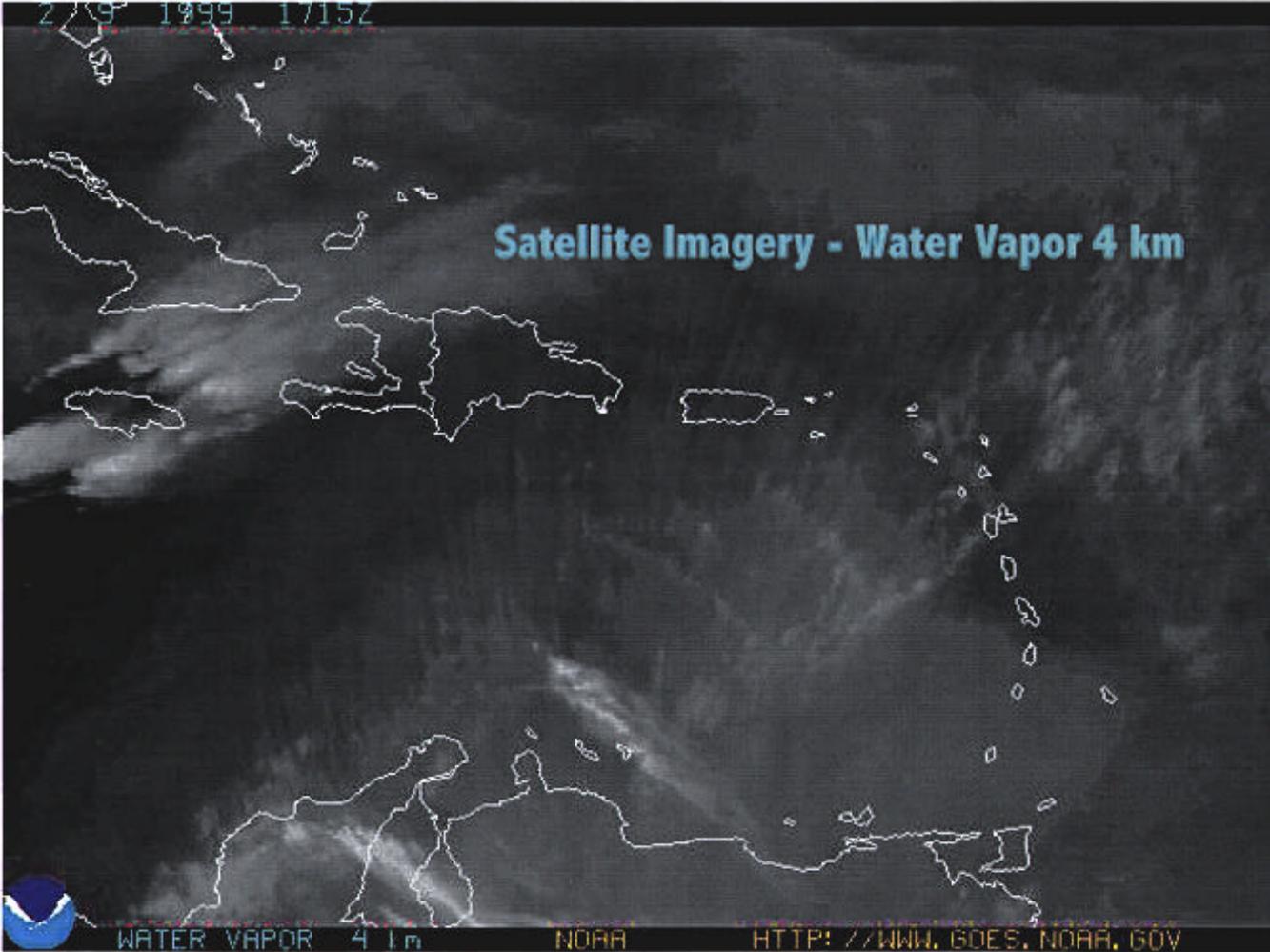






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Satellite Imagery - Water Vapor 4 km



WATER VAPOR 4 km

NOAA

[HTTP://WWW.GOES.NOAA.GOV](http://www.goes.noaa.gov)