## **Dissertations**

## A History and Test of Planetary Weather Forecasting

Bruce Scofield, University of Massachusetts - Amherst

Date of Award 5-2010

Document Type
Open Access Dissertation

Degree Name
Doctor of Philosophy (PhD)

Degree Program Geosciences

First Advisor Lynn Margulis

Second Advisor Robert M. DeConto

Third Advisor Frank Keimig

Keywords

Almanacs, Astrology, Astrometeorology, Historical meteorology, Johannes Kepler, John Goad

Subject Categories
Earth Sciences | Geology

## Abstract

A unique methodology for forecasting weather based on geocentric planetary alignments originated in ancient Mesopotamia. The method, called astrometeorology, was further developed by Greek, Arab, and Renaissance scientists including Ptolemy, Al-Kindi, Tycho Brahe and Joannes Kepler. A major 17th century effort to test the method in a Baconian fashion was made by John Goad. Building on the ideas of Kepler and Goad, I test an isolated component of the method, specifically a correlation between geocentric Sun-Saturn alignments and cold temperatures, using modern daily temperature data from New England, Central England, Prague and other locations. My hypothesis states there is a correlation, shown in daily temperature records, between cooling trends in specific regions and the geocentric alignments of the Sun and the planet Saturn. The hypothesis is supported by a number of tests that show lower temperatures on days when Sun-Saturn alignments occur, especially when near the equinoxes. The astronomy of this positioning suggests that tidal forces on the atmosphere may be part of a mechanism Download



SHARE





that would explain this effect. The abandonment of planetary weather forecasting by the intellectual elite in 16th and 17th century Europe is next organized as a history and discussion. In the final section, applications of the methodology to climate cycles is explored, particularly in regard to a 1536-year recurring cycle of outer planets and a cycle of similar length found in climate records. In addition, an account of biological processes that are structured around astronomical cycles is presented.

## Recommended Citation

Scofield, Bruce, "A History and Test of Planetary Weather Forecasting" (2010). Dissertations. Paper 221.

http://scholarworks.umass.edu/open\_access\_dissertations/221



This page is sponsored by the <u>University Libraries.</u>

© 2009 <u>University of Massachusetts Amherst</u> • <u>Site Policies</u>

