昌 Print

Proof



## CONTROL ID: 1490609

TITLE: Uncertainties in Arctic Precipitation

**ABSTRACT BODY:** Arctic precipitation is riddled with measurement biases; to address the problem is imperative. Our study focuses on comparison of various datasets and analyzing their biases for the region of Siberia and caution that is needed when using them. Five sources of data were used ranging from NOAA's product (RAW, Bogdanova's correction), Yang's correction technique and two reanalysis products (ERA-Interim and NCEP). The reanalysis dataset performed better for some months in comparison to Yang's product, which tends to overestimate precipitation, and the raw dataset, which tends to underestimate. The sources of bias vary from topography, to wind, to missing data .The final three products chosen show higher biases during the winter and spring season. Emphasis on equations which incorporate blizzards, blowing snow and higher wind speed is necessary for regions which are influenced by any or all of these factors; Bogdanova's correction technique is the most robust of all the datasets analyzed and gives the most reasonable results. One of our future goals is to analyze the impact of precipitation uncertainties on water budget analysis for the Siberian Rivers.

## CURRENT SECTION/FOCUS GROUP: Global Environmental Change

**CURRENT SESSION:** GC019. Environmental, Socio-economic and Climatic Change in Northern Eurasia and Their Feedbacks to the Global Earth System

**INDEX TERMS:** [1854] HYDROLOGY / Precipitation.

**AUTHORS/INSTITUTIONS:** <u>I. Majhi, </u>V.A. Alexeev, J.E. Cherry, , University of Alaska Fairbanks, Fairbanks, AK;

J.L. Cohen, , Atmospheric and Environmental Research, Lexington, MD;

P.Y. Groisman, University Corp. for Atmospheric Research, National Climatic Data Center, Asheville, NC;

SPONSOR NAME: Vladimir Alexeev

CONTACT (E-MAIL ONLY): ipmajhi@alaska.edu

TITLE OF TEAM:

ScholarOne Abstracts® (patent #7,257,767 and #7,263,655). © <u>ScholarOne</u>, Inc., 2012. All Rights Reserved. ScholarOne Abstracts and ScholarOne are registered trademarks of ScholarOne, Inc.



Terms and Conditions of Use

Product version number 4.0.0 (Build 56) Build date Aug 07, 2012 12:22:26. Server tss1be0013