

# **Drought Research Initiative (DRI) Workshop #1**

Parktown Hotel (*Oak Room*), Saskatoon, Saskatchewan  
11-12 January 2006

## **AGENDA**

### **Wednesday, 11 January:**

**08:15-09:00 – Registration and Refreshments (Oak Room, Parktown Hotel)**

**09:00-10:00 – Session I – Opening and Overview of DRI (Co-Chairs: Ron Stewart/John Pomeroy)**

09:00-09:20 – Welcome Address – The Honourable *Peter Prebble, MLA*, Minister Responsible for Saskatchewan Water Corporation

09:20-09:30 – Canadian Foundation for Climate & Atmospheric Sciences (CFCAS) – *Tim Aston*, CFCAS Science Officer

09:30-09:40 – Management Perspective on Drought & DRI – *Jim Bruce*, Chair BoD

09:40-10:00 – Objectives, Overview, Current Status of DRI – *Ron Stewart & John Pomeroy*, Co-Chairs DRI Science Committee

**10:00-10:30 – Health Break**

**NOTE:** *The following presentations are assumed to be 10 minutes (including any discussion), except where noted. Suggested questions for Investigators and Collaborators to address in their presentation:*

- *What research will you carry out?*
- *What do you expect to achieve?*
- *How will this fit into the network?*

**10:30-11:00 – Session II – Characterization and Implications of Drought (Chair: Harvey Hill)**

10:30-10:45: *Lawrence Martz, U. Saskatchewan, Saskatoon – Applying Hydroclimatological Science to the Socio-Economic Dimensions of Water*

10:45-10:55 *Elaine Wheaton, SRC/U. Saskatchewan, Saskatoon – Characterization of Prairie Drought*

10:55-11:00: *5-minute open discussion*

**11:00-14:45 – Session III – Atmospheric Processes and Teleconnections (Chair: Ron Stewart)**

11:00-11:10: *Barrie Bonsal, U. Saskatchewan, Saskatoon – Hemispheric to Global-Scale Factors Associated with Canadian Prairie Droughts*

11:10-11:20: *John Gyakum, McGill U., Montreal – Blocking and its Relationship to Droughts*

11:20-11:30: *Steven Quiring, Texas A & M University, College Station, Texas – Characterizing and Understanding the Causes of Drought in the Northern Great Plains*

11:30-11:40: *Charles Lin, McGill U., Montreal – Seasonal Predictions*

11:40-11:45: *5-minute open discussion*

**11:45-13:00 – Lunch**

**13:00-13:45 – Session IV – Surface Water/Atmospheric Moisture & Energy Budgets (Chair: John Pomeroy)**

13:00-13:10: *Kit Szeto, EC/MSU, Toronto – Assessing Water and Energy Budgets for the Prairie Region*

13:10-13:20: *Ron Stewart, McGill U., Montreal – Prairie Drought, Storms and Water Budgets*

13:20-13:30: *Geoff Strong, U. Alberta, Edmonton – Atmospheric Moisture and Thunderstorm Drought*

13:30-13:40: *Henry Leighton, McGill U., Montreal – Use of Satellite for Regional Climate Studies*

13:40-13:45: *5-minute open discussion*

**13:45-14:30 – Session V – Precipitation Processes and Assessment (Chair: John Pomeroy)**

13:45-13:55: John Hanesiak, U. Manitoba, Winnipeg – *Surface-Atmosphere Coupling During Convective Events*

13:55-14:05: Craig Smith, EC/MS/CRB, Saskatoon – *Systematic Errors in Precipitation Measurements and Implications for Monitoring Drought*

14:05-14:15: Susan Skone, U. Calgary Geomatics Eng., Calgary – *GNSS Remote Sensing of the Atmosphere: Potential Applications to Drought Research*

14:15-14:25: Chris Derksen, EC/MS/CRB, Toronto – *Snow Cover Variability and Climate Interactions*

14:25-14:30: *5-minute open discussion*

**14:30-15:00 – Health Break**

**15:00-15:30 – Session VI – Near-Surface Exchanges and Hydrology (Chair: Ron Stewart)**

15:00-15:10: John Pomeroy, U. Saskatchewan, Saskatoon – *Land Surface Hydrological Processes and Modelling*

15:10-15:20: Paul Bullock, U. Manitoba, Winnipeg – *Moisture Stress: A Crop's Perspective*

15:20-15:30: Al Pietroniro, U. Saskatchewan, Saskatoon – *Water Cycle Prediction for the Drought Research Initiative*

15:30-15:40: Brenda Toth, NHRC/EC, Saskatoon – *Hydrological Modeling in the SSRB*

15:40-15:45: *5-minute open discussion*

**15:45-15:55 – Session VII – Surface to Sub-Surface Hydrology (Chair: John Pomeroy)**

15:45-15:55: Ken Snelgrove, Memorial U., St. John's – *Determining Moisture Distributions in the Saskatchewan River Basin*

15:55-16:05: Al Woodbury, U. Manitoba, Winnipeg – *Climate Change Assessment over the Assiniboine Delta Aquifer*

16:05-16:15: Masaki Hayashi, U. Calgary, Calgary – *Effects of Drought on Prairie Groundwater*

16:15-16:25: Garth van der Kamp, U. Saskatchewan, Saskatoon – *Groundwater and Lake Level Data*

16:25-16:30: *5-minute open discussion*

**16:30-17:15 – Session VIII – Drought Initiatives & Concerns of Partners: Part I (Chair: Gary Burke)**

Suggested questions for Partners to address in their presentation:

- *What are your issues and concerns with respect to drought?*
- *What activities are you presently carrying out in this regard?*
- *What do you hope that DRI can accomplish and how can we work together?*

16:30-16:40: Dave Sauchyn, PARC / U. Regina, Regina – *PARC / Long Drought Records*

16:40-16:50: Ross Herrington, MSC/EC for PPWB – *Droughts: Implications for the Prairie Provinces Water Board*

16:50-17:00: Bob Clark, Canadian Wildlife Service, Saskatoon – *CWS Perspective on Drought Impacts/Concerns*

17:00-17:10: Aston Chipanshi, Agriculture and Agri-Food Canada, Regina – *Exploring Research Opportunities Under the AAFC's Drought Monitoring Program*

17:10-17:15: *5-minute open discussion*

**17:15-17:20: Next Day's Agenda and any Announcements**

**18:00-20:00 – DRI Icebreaker** – *snack food and liquid refreshments, along with vigorous discussions.*

**Thursday, 12 January:**

**08:15-09:00 – Refreshments**

**09:00-09:45 – Session IX – Drought Initiatives & Concerns of Partners: Part II (Chair: Gary Burke)**

09:00-09:10: Ralph Wright, AAFRD, Edmonton – *A QA/QC and Data-Filling Decision Support System for Near Real-Time Climate Data*

09:10-09:20: Bill Girling, Manitoba Hydro, Winnipeg – *Drought Research Initiatives in Manitoba Hydro*

09:20-09:30: Bart Oegema, Sask Watershed Authority, Moose Jaw – *Saskatchewan Watershed Authority Perspective on Drought*

09:30-09:40: Kevin Shook, Alberta Environment, Edmonton – *Flood Forecasting Drought Concerns*

09:45-10:05: Daniel Caya, Ouranos, Montreal – *Regional Climate Model Results*

10:05-10:10: *5-minute open discussion*

**10:10-10:40 – Health Break**

**10:40-11:50 – Session X – DRI Themes (Chair: Jim Bruce)**

Themes: objectives, actions, challenges, participants

10:40-10:50: John Pomeroy/Ron Stewart – *Brief summary of DRI and its themes funded and proposed*

10:50-11:00: John Hanesiak - Theme 1 – *Quantify physical features of the recent Canadian Prairie drought*

11:00-11:10: Masaki Hayashi - Theme 2 – *Understanding processes and feedbacks of this recent drought*

11:10-11:20: Charles Lin - Theme 3 – *Assess and reduce uncertainties in prediction of drought*

11:20-11:30: Barrie Bonsal - Theme 4 – *Comparisons of the recent Canadian Prairie drought with others*

11:30-11:40: Elaine Wheaton - Theme 5 – *Apply progress to address critical issues of importance to society*

11:40-11:50: *10-minute open discussion*

**11:50-13:30 – Lunch**

**11:50-13:30 – Board of Directors Luncheon Meeting – Chair: Jim Bruce)**

**13:30-14:30 – Session XI – Break-out Groups on DRI Themes**

Three **Break-out Groups** on the 1<sup>st</sup> 3 themes to address the questions:

*How can we best move ahead with Themes 1-3, and what issues must be addressed?*

Group 1 – *Quantify physical features of the recent Canadian Prairie drought*

Group 2 – *Understand processes and feedbacks of the recent drought*

Group 3 – *Assess and reduce uncertainties in prediction of drought*

Group 4 – Address the question, “*How can we move ahead with (unfunded) Themes 4/5?*”

**14:30-14:45 – Health Break**

**14:45-15:45 – Session XII – Plenary (Summary, Plans and next Workshop)**

**14:45-15:05: Break-Out Summary Reports** – Each group presents a 5-minute summary report

**15:05-15:35: Discussion/feedback**

**15:35-15:45: Plans and Next Workshop**

**15:45-16:45 – DRI Science Committee Meeting**

=====