

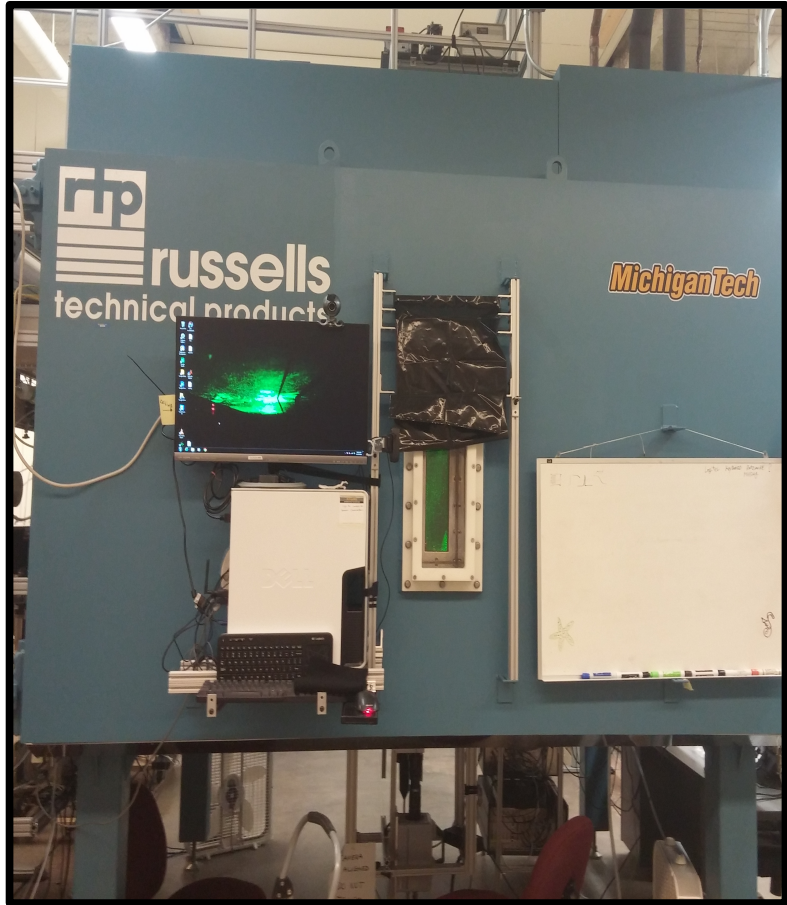


# 2<sup>nd</sup> INTERNATIONAL FORM ON RAIN ENHANCEMENT SCIENCE



**Dr. David J. Delene, University of North Dakota**

# Rain Enhancement Innovations



- New measurement innovations are leading to detailed understanding of precipitation development which provide realistic models.
- Advanced models that simulate the precipitation process can provide daily cost-beneficent information.
- Improved models will provide the benefit of seeding individual storms.

# Scientific Publishing

THE JOURNAL OF

## Weather Modification

VOLUME 44 APRIL 2012



Light at the End of the Tunnel – April 2011

**Weather Modification Association**

Promoting research, development and understanding of  
weather modification for beneficial uses

- Publish not only successful experimental result, but unsuccessful experiments results.
- Publish not only science results but on tools and new technology.
- Publications are a record for the next generation of researchers.
- Open access not only to papers, but also data sets and software.

# Rain Enhancement Projects in US



- Texas and North Dakota have long term operational programs that incorporate a research component.
- North Dakota results indicate a suitable environment, with statistical analysis of seeding optimum storms double precipitation amounts of cells.
- Convective systems are complex but model are getting more realistic.

# **How important is innovation in a time when water resources are scarce?**

**Scarce water resources offer two choices, either flight over what there is or work collaboratively to find solutions. There are innovative solutions available that benefit everyone.**

**What practices are being implemented to incorporate innovation in the management of water resources?**

**Bring new teams of people together to address the problem of water resources. The UAE Research Program for Rain Enhancement Science is an excellent example.**

# **As an innovative solution, how big is the potential impact of rain enhancement on water resource management strategies?**

**The amount of an increase is in the range of 15-30 % on a seasonal average. This may not seem like a lot when seasonal averages change 150-300 %; however, it is a large impact in many cause such as a drought or on a important location.**

**Could you provide any insight about the most up to date practices in rain enhancement?**

**Well educated and trained personnel that utilize the latest technology are key. One of the most important recent advancements is the GOES R satellite the provide increase resolution.**

**Tentative question, if time permits: What role can the UAE Research Program for Rain Enhancement Science play in water management innovation?**

**Inspire students to learn about the science of cloud and weather. Support these students while they are learning to find new innovations**