### Borealis Project Update

A Digital Radar Design for SuperDARN Using Software-Defined Radios

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### Outline

- 1. Project Motivation
  - Deprecated Systems
  - Increase Capabilities
- 2. Hardware
  - Ettus Universal Software Radio Peripherals (USRPs)
- 3. Software
  - Design Goals
  - Creating Experiments
  - Features
- 4. Progress
  - Current Status
  - Setbacks
  - Next Steps
  - First Results



### **Project Motivation**

- Deprecated GC214 Receiver Card
- QNX4
- Analog Beamforming Hardware
- ROS Limitations

### Not Remotely Monitored!





### What is Possible?

- Multi-frequency
- Imaging
- 'Smart' Experiments
- Wider Parameter Limits



# Ettus Universal Software Radio Peripheral

#### Your textblock





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