Aircraft Configuration & Ground Communication

David Delene

INTEATHER MODIFICATION

cessna citation I

Atmospheric Sciences Department University of North Dakota

20-30 hours of Research Flights Titusville, Space Coast Airport







Liquid and Total Water Content

Water Content Meter (WCM)



Rosemount/UTC Icing Probe



Planned (Upgrade?)

Two-Dimensional Cloud Imager

2D-S





CIP





Planned

Planned





Maybe (NASA Langley)

Crystal Habit Identification

2/24/2012 145244--_____N452845e, <-----> 200microns - none applied



3-Dimensional Winds

Nose Boom Gust Probe



LASER WIND SENSOR





AIMMS

Included

Dropsonde (Hail Stone)









Electric Field Measurements

Field Mills (Richard J. Blakeslee, NASA Marshall Space Flight Center) Deployed on the Citation Research Aircraft in Summer of 2017



Possible

Tracer Measurements (Stratosphere / Boundary Layer)

Ozone Analyzer



CPC (3771, 3772, 3775)



Planned

Planned

Aircraft Communications



Summary

Planned

2015

- Pitot Tubes (TAS)
- Rosemount Temp.
- EGG Dew Point
- TDL (Humidity)
- Nose Gust Probe
- Novzorov, King Hot Wire
- 2D-C, 2D-S, HVPS
- Icing Probe
- CDP
- CPC (3771)
- Video Camera

2019

- Spec CPI
- SEA WCM
- AIMMS (Winds/Temp)
- Ozone Analyzer
- CPC (3772, 3775)

Possible

2019

- DMT CIP
- Laser Wind Sensor
- Electric Field Mills
- NASA Reveal

