Goodrich Ice Detector Data from HIWC RADAR II Read Me.

The Goodrich Ice Detector on the NASA DC-8 was recorded with the DC-8 housekeeping parameters for all HIWC RADAR II flights and was recorded with NASA Glenn's M300 Data System after Aug 8, 2018 flight. The Rosemount ice detector is owned by NSERC and the serial number is unknown.

The following data files used data acquired through the DC-8 housekeeping. The acquisition rate was about 2.5 Hz.

- 20180728_Goodrich Ice Detector.xls
- 20180730_Goodrich Ice Detector.xls
- 20180802_Goodrich Ice Detector.xls
- 20180806_Goodrich Ice Detector.xls
- 20180808_Goodrich Ice Detector.xls

The following data files used data acquired through the M300 DAS. The acquisition rate was 1 Hz.

- 20180815_Goodrich Ice Detector.xls
- 20180816_Goodrich Ice Detector.xls
- 20180818_Goodrich Ice Detector.xls
- 20180819_Goodrich Ice Detector.xls
- 20180820_Goodrich Ice Detector.xls

All files provide date, time MSOFreq, OutputSignalState, OpsState, OnTimeCnt, TotIceCnt. The later data files acquired by the SEA DAS also include TASMMS, AmbTemp, DewPoint, TotTemp from the realtime IWG1 records. Below is a description of these parameters:

Date:	MM/DD/YYYY
Time:	hh:mm:ss.0 (UTC) **Note: no time synchronization was performed**
MSOFreq:	MSO frequency - The current Sensor (MSO) Frequency in Hz or kHz
OutputSignalState:	Output Signal State – 0=Ice1 Signal, 1=fail signal, 2=heater control
OpsState:	Operational State – 0=Reset state, 1=Clean state, 2=validating state, 3=deicing state, 4=shedding state, 5=failed state, 6=Fail failed state
OnTimeCnt:	On Time Count- Total power on time = (on time count) * 5 minutes
TotIceCnt:	Total Ice Count – Total number of ice counts
TASMMS:	Total Airspeed from MMS (m/s)
AmbTemp:	Ambient Temperture (deg C) from realtime IWG1. No quality control
DewPoint:	Dewpoint Temperture (deg C) from realtime IWG1. No quality control
TotTemp:	Total Air Temperture (deg C) from realtime IWG1. No quality control

For questions about these data files, contact Tom Ratvasky at NASA Glenn Research Center.
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