Description of Plots from UCI Data System on CIRPAS Twin Otter

Page 1: Twin Otter 2-D Track with map overlay
LON: C-MIGITS Aircraft Longitude [deg]
LAT: C-MIGITS Aircraft Latitude [deg]

Page 2: Twin Otter 3-D Track with map overlay
LON: UCI C-MIGITS Aircraft Longitude [deg]
LAT: UCI C-MIGITS Aircraft Latitude [deg]
PALT: Pressure Altitude (adjusted to radar altitude) [m]

Page 3: Continuity Check of 40-Hz GPS Time from UCI DAQ system
Top panel:
Samples: 40-Hz sample number
40-Hz GPS Time, [s]
Bottom panel:
Samples: 40-Hz sample number
Delta (Time): Differential of 40-Hz GPS Time (Time(i+1)-Time(i)) [s]

Note: Pages 4-12 are Time series of grouped variables versus UTC [HH:MM]

Page 4: Twin Otter Attitude from UCI C-MIGITS
LAT: Aircraft Latitude [deg]
LON: Aircraft Longitude [deg]
THETA: Aircraft Pitch [deg]
PHI: Aircraft Roll [deg]
PSI: Aircraft True Heading [deg]

Page 5: Twin Otter Velocities from UCI C-MIGITS. (Earth Reference Frame)
Vx: Aircraft East Velocity [m/s]
Vy: Aircraft North Velocity [m/s]
Vz: Aircraft Vertical Velocity [m/s]

Page 6-8: Pressures from Radome and Fuselage
PDAR: Differential Pressure of angle of Attack from Radome [mb]
PDSR: Differential Pressure of angle of Sideslip from Radome [mb]
PQR: Dynamic Pressure from Radome [mb]
PQF: Dynamic Pressure from Fuselage (UCI Pitot) [mb]
PTR: Total Pressure from Radome [mb]
PSF: Static Pressure from Fuselage [mb]
**Page 9: Temperature Measurements**
- TTR: CIRPAS Rosemount Recovery Temperature [C]
- TTR2: UCI Rosemount Recovery Temperature [C]
- TAD: Ambient Temperature from reference temperature (ttr or ttr2) [C]
- TIRKTD: Heiman KT Sea-surface IR Temperature [C]

**Page 10: Humidity and CO2 Measurements**
- DPET: EdgeTech chilled mirror dew point temperature [C]
- AHK: Campbell Sci. Krypton absolute humidity [V]
- AHL: LI-COR 7500 absolute humidity (before in situ calibration) [g/m^3]
- CO2L: LI-COR 7500 CO2 density [g/m^3]
- PALTC: Pressure Altitude (adjusted to radar altitude) [m]

**Page 11: Temperature and TAS Measurements**
- TAD: Ambient Temperature from reference temperature [C]
- DPET: EdgeTech chilled mirror dew point temperature [C]
- THETA: Potential Temperature [C (not customary K)]
- TIRKTD: Heiman KT Sea-surface IR Temperature [C]
- TASD: True Airspeed using dry air properties [m/s]

**Page 12: Wind Measurements**
- WSR: Wind Speed [m/s]
- WDR: Direction the wind is blowing from (meteorological convention) [deg]
- WXR: East Wind Component - Earth Ref. [m/s]
- WYR: North Wind Component - Earth Ref. [m/s]
- WZR: Vertical Wind Component - Earth Ref. [m/s]
- WLRG: Longitudinal Wind Component - Aircraft Ref. [m/s]
- WLTR: Lateral Wind Component - Aircraft Ref. [m/s]
- VZBS: Aircraft Vertical Velocity - Earth Ref. [m/s]