

Appendix I: FDR Data Log Comparison

Table 18: The G1000 and Avidyne Entegra systems record similar data parameters in their logs but sometimes differ in their parameter names or units used.

| Parameter | G1000 Parameter ID | G1000 Units | Avidyne Parameter ID | Avidyne Units |
|----------------------------|-----------------------|-------------|---|------------------|
| Time Stamp | | | timeStamp | |
| Local Date | Lcl Date | mm/dd/yyyy | mUtcDate | mm:dd:yyyy |
| Local Time | Lcl Time | hh:mm:ss | mUtcTime | hh:mm:ss |
| Timezone | UTCOfst | hh:mm | | |
| Time in Service | | | minutesInService | minutes |
| Active Waypoint Identifier | AtvWpt | ident | mNxWptID | |
| Distance to Next Waypoint | WptDst | nm | DistanceToWpt | nm |
| Bearing to Next Waypoint | WptBrg | degrees | ActiveBearing | degrees |
| Estimated Time En Route | | | mEteInSeconds | seconds |
| Latitude | Latitude | degrees | mLatitude | degrees |
| Longitude | Longitude | degrees | mLongitude | degrees |
| Altitude | AltB | feet Baro | altitude; baroCorrectedAlt | feet |
| Altitude Valid | | | altitudeValid; baroCorrectedAltValid | |
| Altitude Bug | | | AltBug | feet |
| Barometer Setting | BaroA | inches | baroSetting | inHg |
| Barometer Setting Valid | | | baroSettingValid | |
| Barometer Bug | | | mBaroBug | inHg |
| MSL Altitude | AltMSL | feet MSL | | |
| Density Altitude | | | densityAltitude | feet |
| Density Altitude Valid | | | densityAltitudeValid | |
| Outside Air Temperature | OAT | degrees C | totalTemperature | degrees C |
| Total Temperature Valid | | | totalTemperatureValid | |
| Indicated Airspeed | IAS | kt | indicatedAirspeed | kt |

| Parameter | G1000 Parameter ID | G1000 Units | Avidyne Parameter ID | Avidyne Units |
|---------------------------------|-----------------------|-------------|---|------------------|
| Indicated Airspeed Bug | | | mIasBug | kt |
| Indicated Airspeed Valid | | | indicatedAirspeedValid | |
| Ground Speed | GndSpd | kt | mGroundSpeed | kt |
| Vertical Speed | VSpd | fpm | altitudeRate | fpm |
| Altitude Rate Valid | | | altitudeRateValid | |
| Vertical Speed Indicator Bug | | | mVsiBug | fpm |
| Pitch | Pitch | degrees | pitch | |
| Pitch Valid | | | pitchValid | |
| Pitch Rate | | | Pitch Rate | degrees/s |
| Pitch Rate Valid | | | Pitch Rate Valid | |
| Roll | Roll | degrees | roll | |
| Roll Valid | | | rollValid | |
| Roll Rate | | | Roll Rate | degrees/s |
| Roll Rate Valid | | | Roll Rate Valid | |
| Yaw Rate | | | Yaw rate | degrees/s |
| Yaw Rate Valid | | | Yaw Rate Valid | |
| Turn Rate | | | rateofTurn | |
| Turn Rate Valid | | | rateofTurnValid | |
| Lateral Acceleration | LatAc | G | lateralAcceleration; Lat Accel | m/s^2 |
| Lateral Acceleration Valid | | | lateralAccelerationValid; Lat Accel Valid | |
| Vertical Acceleration | NormAc | G | Norm Accel | m/s^2 |
| Vertical Acceleration Valid | | | Norm Accel Valid | |
| Longitudinal Acceleration | | | Long Accel | m/s^2 |
| Longitudinal Acceleration Valid | | | Long Accel Valid | |
| Heading | HDG | degrees | magHeading | |
| Heading Bug | | | mHdgBug | degrees |
| Magnetic Heading Valid | | | magHeadingValid | |
| Track | TRK | degrees | mGroundTrack | degrees |
| Voltage 1 | volt1; volt2 | volts | | |

| Parameter | G1000 Parameter ID | G1000 Units | Avidyne Parameter ID | Avidyne Units |
|-----------------------------------|--|-------------|--|------------------|
| Amperage 1 | amp1; amp2 | amps | | |
| Fuel Flow | E1 FFlow | gph | fuelFlowL; fuelFlowR; fuelFlowL; fuelFlowR | gph; lbph |
| Oil Temperature | E1 OilT | degrees F | oilTempL / oilTempR | degrees F |
| Oil Pressure | E1 OilP | psi | oilPresL / oilPresR / oilPressL / oilPressR | psi |
| Manifold Absolute Pressure | E1 MAP | Hg | manPresL; manPresR | inHg |
| Engine Rotations per Minute | E1 RPM | rpm | tachL; tachR | rpm |
| Engine Percent Power | | | percentPowerL; percentPowerR | % |
| Engine Percent Torque | | | engineTorquePercentL; engineTorquePercentR | % |
| Turbine Rotations per Minute | | | engineNgPercentL; engineNgPercentR | % |
| Propeller Rotations per Minute | | | engineNpPercentL; engineNpPercentR | % |
| Inlet Turbine Temperature | | | ittDegCL; ittDegCR | |
| Cylinder Head Temperature | E1 CHT1; E1 CHT2; E1 CHT 3; E1 CHT4; E1 CHT5; E1 CHT6 | degrees F | | |
| Exhaust Gas Temperature | E1 EGT1; E1 EGT2; E1 EGT 3; E1 EGT4; E1 EGT5; E1 EGT6 | degrees F | | |
| Cool Temperature | | | coolTempL; coolTempR | degrees F |
| Altitude GPS | AltGPS | ft wgs | | |
| True Airspeed | TAS | kt | trueAirspeed | kt |
| True Airspeed Valid | | | trueAirspeedValid | |
| Airspeed Trend | | | airspeedTrend | |
| Airspeed Trend Valid | | | airspeedTrendValid | |
| | HSIS | enum | | |
| Course | CRS | degrees | ActiveCourse | degrees |
| Desired Course | | | mDtkOrBrg; DesiredCourse | degrees |

| Parameter | G1000 Parameter ID | G1000 Units | Avidyne Parameter ID | Avidyne Units |
|--|-----------------------|-------------|-------------------------------------|------------------|
| Navigational Frequency | NAV1; NAV2 | MHz | VhfFreq | |
| Primary Navigation Source | | | ucPriNavSource | |
| Communication Frequency | COM1; COM2 | MHZ | | |
| Horizontal Course Deviation Indicator | HCDI | fsd | HdiDeviation | % |
| Horizontal Course Deviation Indicator Source | | | HdiSource | |
| Vertical Course Deviation Indicator | VCDI | fsd | VdiDeviation | % |
| Vertical Course Deviation Indicator Source | | | VdiSource | |
| Wind Speed | WndSpd | kt | | |
| Wind Direction | WndDr | degrees | | |
| Magnetic Variation | MagVar | degrees | | |
| Automatic Flight Control System On | AfcsOn | bool | | |
| * | RollM | enum | | |
| * | PitchM | enum | | |
| Roll | RollC | degrees | fdRoll | |
| Pitch | PitchC | degrees | fdPitch | |
| GPS Vertical Speed | VSpdG | fpm | | |
| GPS Fix | GPSfix | enum | GpsHold | |
| Horizontal Alert Limit | HAL | mt | HdiDeviationLimit | |
| Vertical Alert Limit | VAL | mt | VdiDeviationLimit | |
| * | HPLwas | mt | | |
| * | HPLfd | mt | | |
| * | VPLwas | mt | | |
| Active Annunciators | | | apAnnunciators | |
| Logic States | | | logicStates | |
| Map Format | | | mMapFormat | enum |
| Map Range | | | mMapRangeIndex | |
| Flags | | | Flags; FlagsL; FlagsR; WaasFlags | |

| Parameter | G1000 Parameter ID | G1000 Units | Avidyne Parameter ID | Avidyne Units |
|------------------------------|-----------------------|-------------|--------------------------------------|------------------|
| Saturated | | | saturated | |
| Saturated Valid | | | saturatedValid | |
| Go/No-go | | | GoNogo; mpuNoGo; iruNoGo; magNoGo | |
| Needle Text Type | | | mNeedleTextType | enum |
| Dh Alert | | | mDhAlert | |
| Synthetic Rate Alarm | | | SyntheticRateAlarm | |
| Longterm Bias Drift Alarm | | | LongtermBiasDriftAlar m | |
| Bias Cutout Alarm | | | BiasCutoutAlarm | |