

**ASRS Database Report Set**

**Global Positioning System (GPS) Reports**

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Report Set Description.....	A variety of reports referencing use of Global Positioning System (GPS) devices.
Update Number.....	10.0
Date of Update .....	February 6, 2008
Number of Records in Report Set.....	50
Number of New Records in Report Set .....	0
Type of Records in Report Set.....	For each update, new records received at ASRS will displace a like number of the oldest records in the Report Set, with the objective of providing the fifty most recent relevant ASRS Database records. Records within this Report Set have been screened to assure their relevance to the topic.

TH: 262-7

**MEMORANDUM FOR: Recipients of Aviation Safety Reporting System Data**

**SUBJECT: Data Derived from ASRS Reports**

The attached material is furnished pursuant to a request for data from the NASA Aviation Safety Reporting System (ASRS). Recipients of this material are reminded of the following points, which must be considered when evaluating these data.

ASRS reports are submitted voluntarily. The existence in the ASRS database of reports concerning a specific topic cannot, therefore, be used to infer the prevalence of that problem within the National Airspace System.

Reports submitted to ASRS may be amplified by further contact with the individual who submitted them, but the information provided by the reporter is not investigated further. Such information represents the reporting of a specific individual who is describing their experience and perception of a safety related event.

After preliminary processing, all ASRS reports are de-identified. Following de-identification, there is no way to identify the individual who submitted a report. All ASRS report processing systems are designed to protect identifying information submitted by reports, such as, names, company affiliations, and specific times of incident occurrence. There is, therefore, no way to verify information submitted in an ASRS report after it has been de- identified.

The National Aeronautics and Space Administration and its ASRS contractor, Booz Allen Hamilton, specifically disclaim any responsibility for any interpretation which may be made by others of any material or data furnished by NASA in response to queries of the ASRS database and related materials.



Linda J. Connell, Director  
Aviation Safety Reporting System

## CAVEAT REGARDING STATISTICAL USE OF ASRS INFORMATION

Certain caveats apply to the use of ASRS statistical data. All ASRS reports are voluntarily submitted, and thus cannot be considered a measured random sample of the full population of like events. For example, we receive several thousand altitude deviation reports each year. This number may comprise over half of all the altitude deviations that occur, or it may be just a small fraction of total occurrences.

Moreover, not all pilots, controllers, air carriers, or other participants in the aviation system, are equally aware of the ASRS or equally willing to report to us. Thus, the data reflect **reporting biases**. These biases, which are not fully known or measurable, may influence ASRS statistics. A safety problem such as near midair collisions (NMACs) may appear to be more highly concentrated in area “A” than area “B” simply because the airmen who operate in area “A” are more supportive of the ASRS program and more inclined to report to us should an NMAC occur.

One thing that can be known from ASRS statistics is that they represent the **lower measure** of the true number of such events that are occurring. For example, if ASRS receives 881 reports of track deviations in 1999 (this number is purely hypothetical), then it can be known with some certainty that at least 881 such events have occurred in 1999. Because of these statistical limitations, we believe that the **real power** of ASRS lies in the **report narratives**. Here pilots, controllers, and others, tell us about aviation safety incidents and situations in detail. They explain what happened, and more importantly, **why** it happened. The values of these narrative reports lie in their qualitative nature. Using report narratives effectively requires an extra measure of study, but the knowledge derived is well worth the added effort.

# **Report Synopses**

**ACN: 759932** (1 of 50)

**Synopsis**

PIPER PLT RPTS CTAF FREQUENCY ERROR ON COMMERCIAL CHART FOR TZT.

**ACN: 759369** (2 of 50)

**Synopsis**

FLT CREW MANUALLY ENTERED DEPARTURE FROM CLE. CREW INADVERTENTLY ENTERED SIMILAR FIX RATHER THAN FIX DEPICTED ON DEP.

**ACN: 753502** (3 of 50)

**Synopsis**

A PLT AND INSTRUCTOR ON A FDK RNAV Z RWY 23 PRACTICE FLEW INTO THE ADIZ ON THE MISSED APCH BECAUSE OF A GPS CONFIGURATION AND NO ADIZ PLOTTED ON THE APCH PLATE.

**ACN: 748405** (4 of 50)

**Synopsis**

AN EMB 145 EXPERIENCED DUAL GPS FAILURES CAUSING AN FMS LNAV DIFFERENCE BETWEEN THE CAPT AND FO. THE EICAS DID NOT ALERT ABOUT THE GPS FAILURES.

**ACN: 747186** (5 of 50)

**Synopsis**

FLT CREW REPORTS QUESTIONABLE ALTITUDE CLEARANCES BY SKBP TRACON DURING RNAV GPS RWY 33 APPROACH TO SBKP AND TRAFFIC CONFLICT DURING THE PROCEDURE TURN INBOUND.

**ACN: 745159** (6 of 50)

**Synopsis**

PILOT REPORTS ATC ASSIGNS THE MIKEE FOUR ARR TO VPC WHEN VPC IS NOT AN APPLICABLE ARPT. PLTS ARE UNABLE TO PROGRAM APCHS FROM THE MIKEE STAR TO VPC.

**ACN: 745153** (7 of 50)

**Synopsis**

A CESSNA PILOT REPORTS NCT WAS NOT AWARE OF DME CHANGES AT INTXNS SUDGE AND JOCPI UNTIL HE BEGAN THE HWD RNAV (GPS) Z RWY 28L APCH.

**ACN: 741081** (8 of 50)

### **Synopsis**

C340 PLT EXECUTED GO-AROUND AFTER FAILING TO TRACK LOC. DURING THE MANEUVER, THE PLT BECAME DISORIENTED, BUT WAS ABLE TO REGAIN COMPOSURE, PROPERLY TUNE LOC, AND COMPLETE THE APCH.

**ACN: 736691** (9 of 50)

### **Synopsis**

FOLLOWING MAX FUEL RANGE CROSS COUNTRY, PA28R LOSES POWER AND LANDS SHORT OF RWY AT DESTINATION.

**ACN: 736412** (10 of 50)

### **Synopsis**

C208 PLT, UNFAMILIAR WITH NEW FMS SYSTEM -- FOR WHICH THE GPS FUNCTION WAS INOPERATIVE -- ENCOUNTERS NUMEROUS PROBLEMS WITH NAVIGATION AND ACFT ATTITUDE CONTROL.

**ACN: 735290** (11 of 50)

### **Synopsis**

FOLLOWING A DEP INTO MARGINAL VFR CONDITIONS AND DISTRACTED BY A MALFUNCTIONING GENERATOR, A LOW TIME PRIVATE PLT FINDS HIMSELF IN SOLID IMC.

**ACN: 733122** (12 of 50)

### **Synopsis**

A B33 EXECUTED A GO AROUND ON THE AIK RWY 7 GPS AFTER DESCENDING TOWARD THE FAF PRIOR TO THE IAF.

**ACN: 732454** (13 of 50)

### **Synopsis**

A CESSNA'S IFR FLT STATUS WAS CONFUSED WHEN TRANSFERRING FROM ONE ATC FAC (NUW) TO ANOTHER (S46 TRACON) WITH TERRAIN BECOMING A FACTOR.

**ACN: 732180** (14 of 50)

### **Synopsis**

B737 CREW RPTS GPWS WARNING DURING RNAV APCH TO RWY 8 AT MDPP.

**ACN: 731001** (15 of 50)

### **Synopsis**

PLT VOICED CONCERN REGARDING ATC ASSIGNED STAR PROCS THAT DO NOT TERMINATE AT RNH, REQUIRING FIX INPUTS FOR FMS.

**ACN: 729632** (16 of 50)

**Synopsis**

A IFR/IMC C206 PILOT REPORTS CONFUSION AND ATTITUDE CTL PROBLEMS USING AN UNFAMILIAR ADVANCED NAV SYSTEM IN FLT FOLLOWING AN ADI FAILURE.

**ACN: 728453** (17 of 50)

**Synopsis**

A C172 PLT RPTS NMAC WITH PA46 WHILE TRAINING AT 4500 FT.

**ACN: 727789** (18 of 50)

**Synopsis**

INSTRUCTOR AND STUDENT PLTS EXPERIENCE CFTT ON NIGHT VFR CROSS COUNTRY.

**ACN: 727728** (19 of 50)

**Synopsis**

B737-300 CREW DEVIATES FROM TRACK DURING INITIAL PHASE OF HOLTZ RNAV DEPARTURE FROM LAX.

**ACN: 726815** (20 of 50)

**Synopsis**

A BE35 AT 3500 FT NOTED DROP IN OIL PRESSURE. ADVISED ATC AND ADVISED TO DSND TO 2000 FT. ON DSCNT LOST DIRECTIONAL GYRO AND AUTOPLT. ADVISED TO DSND TO 600 FT AND BROKE OUT OF CLOUDS AND PROCEEDED TO ARPT.

**ACN: 726613** (21 of 50)

**Synopsis**

EMB135 CREW RPTS CONCERNS WITH NAV ACCURACY DURING KORRY 3 STAR.

**ACN: 725677** (22 of 50)

**Synopsis**

FLT CREW DESCENDS BELOW PUBLISHED MIN ALT DURING APCH TO EGE.

**ACN: 723957** (23 of 50)

**Synopsis**

PA28 PLT ENCOUNTERS ICING CONDITIONS AND HAS DIFFICULTIES LNDG DUE TO ICE ON THE WINDSCREEN.

**ACN: 723360** (24 of 50)

**Synopsis**

C182 PLT ON RNAV GPS 23 APCH RECEIVED LOW ALT ALERT FROM TWR CAUSING A DISTR WHEN ALTS WERE IN COMPLIANCE WITH PROC.

**ACN: 723050** (25 of 50)

**Synopsis**

PLT CLAIMS UNNECESSARY 'ADF REQUIRED' NOTE ON SAC ILS RWY 2 APCH PLATE.

**ACN: 721833** (26 of 50)

**Synopsis**

PVT PLT ENTERS DC ADIZ ON FIRST LICENSED FLT.

**ACN: 721263** (27 of 50)

**Synopsis**

PLT HAS CLOSE ENCOUNTER WITH PWR LINES DURING NIGHT VISUAL APCH TO 8A1.

**ACN: 720618** (28 of 50)

**Synopsis**

A LOW TIME SOCAT A TBM 700 PLT RPTS A TRACK AND ALTDEV AS HE ATTEMPTED TO COMPLY WITH AN ATC CLRNC. SYS IN USE WAS A GARMIN 530.

**ACN: 719576** (29 of 50)

**Synopsis**

PIPER PA42 PLT HAS AN ALTDEV WHILE IN CRUISE FLT.

**ACN: 719107** (30 of 50)

**Synopsis**

C172 PLT HAS A TRACK HDG DEV DURING APCH, EXECUTES MISSED APCH AND DIVERTS FOR LNDG.

**ACN: 718859** (31 of 50)



**Synopsis**

FLT CREW GOES VISUAL PREMATURELY ON APCH TO UNFAMILIAR ARPT. LAND AT BEC VICE AAO.

**ACN: 718558** *(32 of 50)***Synopsis**

BEECH KINGAIR 90 PLT HAS A TRACK AND HDG AND ALTDEV DURING CANOGA 8 DEP FROM VNY.

**ACN: 717723** *(33 of 50)***Synopsis**

GLIDER PLT EXCEEDS 'WAVE WINDOW' GRANTED BY ATC.

**ACN: 717518** *(34 of 50)***Synopsis**

A C172 CFI AND STUDENT APCHED ZZZ IMC WHILE UNDER VFR. WX BRIEF FORECAST VFR, BUT WHEN IMC ENCOUNTERED FLT CONTINUED ON ILS. IFR FILED ON GND FOR RETURN.

**ACN: 717452** *(35 of 50)***Synopsis**

PLT EXPERIENCES AN ALTDEV DUE IN PART TO DISTR WITH UNFAMILIAR GPS NAV SYS.

**ACN: 716952** *(36 of 50)***Synopsis**

A PA28 PLT HAS CLT CLASS B AIRSPACE INCURSION. PLT DRIFTED OFF COURSE WHILE ATTEMPTING TO PROGRAM AN UNFAMILIAR GPS.

**ACN: 716829** *(37 of 50)***Synopsis**

PA32 PLT NEGLECTS TO RPT FAF AS DIRECTED AND HAS CONFLICT.

**ACN: 715854** *(38 of 50)***Synopsis**

MOONEY 20J PLT HAS A TRACK AND HDG DEV DURING APCH TO HDC.

**ACN: 715001** *(39 of 50)*

**Synopsis**

PLT ON VFR FLT PLAN FLIES INTO IMC CONDITIONS AND MUST MAKE EMER LNDG AT CLOSED ARPT.

**ACN: 714962** (40 of 50)

**Synopsis**

PA28 PLT FAILED TO MONITOR GROUND SPEED, DECLARED AN EMER DUE TO LOW FUEL, BECAME TASK SATURATED, AND LOST SITUATIONAL AWARENESS. GCA CTLR GUIDED PLT TO A LNDG AT A MIL FIELD.

**ACN: 714819** (41 of 50)

**Synopsis**

COLUMBIA 3 PLT MISTAKES ABE FOR 1N9 AND LANDS WITHOUT CLRNC, THEN DEPARTS WITHOUT CLRNC.

**ACN: 714695** (42 of 50)

**Synopsis**

PLT RPTS PROBS WITH PHX VFR TERMINAL CHART.

**ACN: 714509** (43 of 50)

**Synopsis**

C172 PLT MAKES AN OFF FIELD LNDG.

**ACN: 714263** (44 of 50)

**Synopsis**

A PA28 PLT DEVIATED FROM HIS CLRED TRACK BECAUSE OF CONFUSION IN OPERATING HIS NEW GPS.

**ACN: 714248** (45 of 50)

**Synopsis**

ZNY CTLR EXPRESSED CONCERN THAT FACILITY MGMNT DID NOT PROVIDE UPDATED BRIEFINGS AND CHARTS FOR UNV RNAV APCH PROCS.

**ACN: 713406** (46 of 50)

**Synopsis**

PLT BECAME DISORIENTED IN IMC WHEN HE TRIED TO PROGRAM HIS GPS AND LOST CTL OF THE ACFT, TUMBLING THE GYROS. WITH THE AID OF ATC, HE DIVERTED TO A SUITABLE ARPT AND LANDED SAFELY.

**ACN: 713207** (47 of 50)

**Synopsis**

A BE20 CREW FAILED TO SELECT THE GENERATORS ON FOLLOWING A GPU START. AFTER TKOF AN EMER WAS DECLARED BECAUSE OF LOST COM AND ELECTRICAL PWR.

**ACN: 713033** (48 of 50)

**Synopsis**

AN ACR PLT RPTS RECEIVING AN ERRATIC ILS SIGNAL ON BWI RWY 10 ILS. AFTER LNDG, UPON INQUIRING, ATC INFORMED THEM THAT THE ILS WAS ON RWY 28.

**ACN: 712643** (49 of 50)

**Synopsis**

PILATUS PC12 PLT HAS A TRACK-HDG DEV ENRTE.

**ACN: 712098** (50 of 50)

**Synopsis**

A CL65 FLT CREW DEVIATED FROM THE CHARTED DEP PROC WHEN THEIR FMS DROPPED THE GPS SIGNAL.

# **Report Narratives**

**ACN: 759932**

## **Time / Day**

Date : 200711  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Airport : TZT.Airport  
State Reference : IA  
Altitude.MSL.Single Value : 3500

## **Environment**

Flight Conditions : VMC  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.TRACON : CID.TRACON  
Operator.General Aviation : Instructional  
Make Model Name : Piper Aircraft Corp Undifferentiated or Other Model  
Navigation In Use.Other : GPS  
Flight Phase.Descent : Approach  
Route In Use.Approach : Instrument Non Precision

## **Person : 1**

Affiliation.Other : Instructional  
Function.Instruction : Instructor  
Qualification.Pilot : ATP  
Qualification.Pilot : CFI  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Experience.Flight Time.Last 90 Days : 75  
Experience.Flight Time.Total : 7000  
Experience.Flight Time.Type : 3000  
ASRS Report : 759932

## **Events**

Anomaly.Other Anomaly.Other  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.None Taken : Anomaly Accepted

## **Assessments**

Problem Areas : Chart Or Publication  
Problem Areas : FAA

## **Situations**

Chart.Airport : TZT.Airport

## **Narrative**

EXECUTING PRACTICE GPS 18 APCH TO BELLE PLAINE, IA (TZT). USING FAA INSTRUMENT APCH CHARTS AND NOTICED THE UNICOM FREQUENCY WAS 122.9. I'VE GIVEN INSTRUCTION FOR MANY YEARS IN THIS AREA AND THE UNICOM HAS ALWAYS BEEN 122.8. WE WERE RECEIVING RADAR ADVISORIES FROM CEDAR RAPIDS APCH AND ASKED THEM ABOUT THE UNICOM FREQUENCY. THEY FIRST SAID 122.8 BUT THEN SAID 122.9. DIDN'T SEE ANY NOTAM OR RECEIVE ANY NOTICE THROUGH FAASAFETY.GOV ABOUT ANY FREQUENCY CHANGE. ALSO, THE PLT CONTROLLED LIGHTS ARE STILL ON 122.8. IN MY VIEW THIS MAKES TZT A 'HOTSPOT' WITH GREAT POTENTIAL FOR CONFLICTS BETWEEN AIRPLANES. CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO: THE RPTR STATED THE MAIN COMPLAINT IS THAT THE CTAF FREQ HAD CHANGED AT TZT WITHOUT ANY NOTIFICATION. PLTS WHO FLY FREQUENTLY OFTEN RECALL FREQUENCIES FROM MEMORY WHICH COULD ALLOW TWO ACFT TO BE ANNOUNCING POSITIONS ON DIFFERENT FREQUENCIES. RPTR FEELS THESE CHANGES SHOULD BE WIDELY DISSEMINATED THROUGH LONG TERMED NOTAMS AND AVIATION SAFETY FORUMS.

## **Synopsis**

PIPER PLT RPTS CTAF FREQUENCY ERROR ON COMMERCIAL CHART FOR TZT.

**ACN: 759369**

## **Time / Day**

Date : 200710  
Local Time Of Day : 0601 To 1200

## **Place**

Locale Reference.Airport : CLE.Airport  
State Reference : OH  
Altitude.MSL.Single Value : 5000

## **Environment**

Flight Conditions : VMC  
Light : Dawn

## **Aircraft : 1**

Controlling Facilities.TRACON : CLE.TRACON  
Operator.Common Carrier : Air Carrier  
Make Model Name : Medium Large Transport  
Operating Under FAR Part : Part 121  
Flight Phase.Climbout : Intermediate Altitude

## **Person : 1**

Affiliation.Company : Air Carrier  
Function.Flight Crew : First Officer  
Qualification.Pilot : ATP  
Experience.Flight Time.Last 90 Days : 114  
Experience.Flight Time.Total : 2750  
Experience.Flight Time.Type : 86  
ASRS Report : 759369

## **Person : 2**

Affiliation.Government : FAA  
Function.Controller : Departure

## **Events**

Anomaly.Non Adherence : Clearance  
Anomaly.Other Spatial Deviation  
Independent Detector.Other.ControllerA : 2  
Resolatory Action.Controller : Issued New Clearance  
Resolatory Action.Flight Crew : Became Reoriented

## **Assessments**

Problem Areas : FAA  
Problem Areas : Flight Crew Human Performance

## **Situations**

## **Narrative**

THE ORIGINAL CLEARANCE FOR FLIGHT FROM CLE, RECEIVED FROM CLEARANCE DELIVERY ON THE GROUND WAS: 'CLEARED VIA RADAR VECTORS, BRUNZ, OBRLN, FINDLAY (FDY), RICHMOND (RID), THEN AS FILED, CLIMB AND MAINTAIN 5,000 FT...' DURING PREFLIGHT, THE FO OBTAINED CLEARANCE FROM ATC AND PROGRAMMED THE FMS. AFTER THE FMS WAS PROGRAMMED, THE FLIGHT CREW VERIFIED THE FLIGHT PATH, WITH THE FO READING THE WAYPOINTS IN THE FMS AND THE CAPTAIN CONFIRMING THE WAYPOINTS AS THEY WERE READ, REFERRING TO THE OBRLN ONE DEP PROC AND H-7 HIGH ALTITUDE ENRTE CHART. AS AN ADDITIONAL CHECK, THE FLIGHT PLAN DISTANCE IN THE FMS WAS COMPARED TO THE DISTANCE COMPUTED ON THE DISPATCH RELEASE, WHERE THE DIFFERENCE BETWEEN THE TWO DISTANCES WERE MINIMAL. HOWEVER, THE FO ENTERED BRUNS IN ERROR INSTEAD OF BRUNZ IN THE FMS. SINCE THE TWO FIXES ARE PRONOUNCED THE SAME WAY, AND ARE WITHIN 30 MILES OF EACH OTHER, THE CREW DID NOT DETECT THE ERROR UNTIL THE FLIGHT WAS AIRBORNE. THE FLIGHT DEPARTED CLE RWY 24C AND WAS GIVEN AN INITIAL HEADING OF 265 DEGS. IN THE VICINITY OF DJB VOR, THE FLIGHT WAS GIVEN 'DIRECT BRUNZ.' THE FO/PNF STATED, 'BRUNS IS BEHIND US.' CLEVELAND DEPARTURE'S ANSWER WAS, 'RECHECK NAVIGATION, CLEARED DIRECT BRUNZ.' THE CREW THEN COMPARED THE FMS WITH THE OBRLN ONE DEP AGAIN, AT WHICH POINT THE BRUNS/BRUNZ ERROR WAS DISCOVERED AND CORRECTED. CONTRIBUTING FACTORS: 1) CLE RWY 6R/24L IS CURRENTLY CLOSED FOR CONSTRUCTION AND RWY 6C/24C IS USED INSTEAD. WHEN USING RWY 6C/24C, THE OBRLN ONE DEP IS NOT SELECTABLE WHICH REQUIRES THE MANUAL ENTRY OF THE DEPARTURE WAYPOINTS WHEN USING RWY 6C/24C AND INTRODUCES THE POTENTIAL FOR ERROR. WHEN SELECTING THE OBRLN ONE DEP USING RWYS 6R/24L AND 6L/24R, THE POTENTIAL BRUNS/BRUNZ ERROR IS AVOIDED AS THE WHOLE PROCEDURE IS LOADED INSTEAD OF MANUALLY CONSTRUCTING INDIVIDUAL WAYPOINTS FOR THE DEPARTURE. 2) HAVING THE HOMONYMS BRUNS AND BRUNZ IN THE SAME TERMINAL AIRSPACE. BRUNZ A FIX ON THE OBRLN ONE DEP. BRUNS IS THE MISSED APPROACH FIX FOR CLE RNAV (GPS) RWY 10 APPROACH. THEY ARE LOCATED WITHIN 30 MILES OF EACH OTHER. BRUNZ IS LOCATED 32 MILES SOUTHWEST OF CLE, BRUNS IS LOCATED 11 MILES SOUTH OF CLE. 3) THE FO WAS UNFAMILIAR WITH THE DEP FROM CLE AND PRE DEP CLEARANCE WAS NOT AVAILABLE THROUGH ACARS, WHICH IS THE NORMAL MEANS OF OBTAINING CLEARANCE. THIS REQUIRED THE CREW TO OBTAIN CLEARANCE THROUGH CLE CLEARANCE DELIVERY. HAD THE CLEARANCE BEEN RECEIVED THROUGH ACARS, THE FIX BRUNZ WOULD HAVE BEEN SPELLED OUT. A CREW THAT WAS EXPERIENCED WITH THE DEPARTURE AT CLEVELAND MOST LIKELY WOULD HAVE KNOWN THAT BRUNZ WAS THE CORRECT FIX WHEN HEARD OVER THE RADIO. I BELIEVE THE ROOT CAUSE OF THE PROBLEM WAS HAVING TWO FIXES WITH IDENTICAL SOUNDING NAMES IN CLOSE PROXIMITY LOCATED IN THE SAME TERMINAL AIRSPACE. THE SAFEGUARDS THAT WERE USED -- VERIFYING THE WAYPOINTS USING CHARTS, COMPARING FLIGHT PLAN DISTANCES -- WERE NOT SUFFICIENT TOWARD DETECTING AND PREVENTING THE PROBLEM. THE SAFEGUARDS THAT NORMALLY WOULD HAVE BEEN IN PLACE BUT WERE NOT USED -- OBTAINING CLEARANCE THROUGH ACARS (INSTEAD OF VERBALLY THROUGH CLEARANCE DELIVERY), SELECTING THE OBRLN DEP (INSTEAD OF MANUALLY INPUTTING THE WAYPOINTS) -- WOULD HAVE BEEN SUFFICIENT TO PREVENT THE PROBLEM PRIOR TO DEPARTURE.

## **Synopsis**

FLT CREW MANUALLY ENTERED DEPARTURE FROM CLE. CREW INADVERTENTLY ENTERED SIMILAR FIX RATHER THAN FIX DEPICTED ON DEP.



**ACN: 753502**

## **Time / Day**

Date : 200709  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Intersection : FEDIT  
State Reference : MD  
Altitude.MSL.Single Value : 3000

## **Environment**

Flight Conditions : VMC  
Light : Daylight

## **Aircraft : 1**

Operator.General Aviation : Instructional  
Make Model Name : Cessna Aircraft Undifferentiated or Other Model  
Operating Under FAR Part : Part 91  
Navigation In Use.Other : GPS  
Flight Phase.Landing : Missed Approach

## **Aircraft : 2**

Route In Use.Approach : Instrument Non Precision

## **Person : 1**

Affiliation.Other : Instructional  
Function.Instruction : Trainee  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Experience.Flight Time.Last 90 Days : 4  
Experience.Flight Time.Total : 1087  
Experience.Flight Time.Type : 71  
ASRS Report : 753502

## **Person : 2**

Affiliation.Other : Instructional  
Function.Instruction : Instructor  
Qualification.Pilot : CFI  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Experience.Flight Time.Last 90 Days : 106  
Experience.Flight Time.Total : 6516  
Experience.Flight Time.Type : 630  
ASRS Report : 753702

## **Events**

Anomaly.Airspace Violation : Entry  
Anomaly.Non Adherence : FAR  
Anomaly.Non Adherence : Published Procedure  
Independent Detector.Other.Flight CrewA : 1  
Independent Detector.Other.Flight CrewB : 2  
Resolatory Action.None Taken : Detected After The Fact

## Assessments

Problem Areas : Airport  
Problem Areas : Airspace Structure  
Problem Areas : Chart Or Publication  
Problem Areas : Flight Crew Human Performance

## Situations

Chart.Approach : FDIC RNAV 2 RWY 23

## Narrative

I WAS DOING AIR WORK AND INSTRUMENT RECURRENCY TRAINING WITH AN INSTRUCTOR IN PREPARATION FOR AN ANNUAL CHK RIDE. THE PURPOSE OF THE FLT WAS TO BECOME MORE FAMILIAR WITH THE APOLLO GX55 GPS IN THE ACFT, SO WE WERE CONCENTRATING ON APPROACHES USING THE GPS. AFTER A VOR RWY 34 APCH TO DMW WE DID AN RNAV (GPS) Z RWY 23 APCH TO FDK. WHILE FLYING THE PUBLISHED MISSED APCH PROC AND REACHING FEDIT WE TURNED THE GPS BACK TO THE MAP MODE AND DISCOVERED THAT WE WERE INSIDE THE ADIZ. WE IMMEDIATELY TURNED FURTHER N AND EXITED THE ADIZ. THE APCH PLATES THAT I WAS USING WERE CURRENT, DOWNLOADED FROM THE PLT GROUP MEMBERS-ONLY WEB SITE THAT MORNING. UNLIKE THE VOR RWY 34 AND RNAV (GPS) RWY 34 APPROACHES TO CARROLL COUNTY (DMW), WHICH CLEARLY SHOW THE ADIZ BOUNDARY, THE RNAV (GPS) Z RWY 23 APPROACH TO FDK DOESN'T SHOW THE ADIZ BOUNDARY. MISTAKENLY AS IT TURNS OUT, I ASSUMED THAT THE ADIZ WASN'T A FACTOR. IT WASN'T UNTIL LATER THAT MY INSTRUCTOR PLOTTED THE LOCATION OF FEDIT AND DISCOVERED THAT THE WAYPOINT IS INSIDE THE ADIZ! IF WE KNEW THAT AHEAD OF TIME WE WOULDN'T HAVE PICKED THIS APCH, OR WOULDN'T HAVE FLOWN THE PUBLISHED MISSED APCH PROC. HOWEVER, THERE IS NO WARNING OR CAUTION NOTE ON THE APCH PLATE AND NO MENTION OF THIS IN THE FDC NOTAMS. IT'S POSSIBLE THAT THE TSA AND/OR CHARTING FOLKS BELIEVE THAT ANYONE FLYING THE APCH WOULD BE ON AN IFR FLT PLAN SO THE ADIZ WOULDN'T BE A FACTOR, BUT THIS DOESN'T TAKE INTO ACCOUNT ALL THE PLTS WHO FLY PRACTICE APPROACHES IN VFR CONDITIONS WITHOUT ATC ASSISTANCE. WE HAD OUR DME SET ON THE DCA VOR FOR ADDITIONAL SITUATIONAL AWARENESS, BUT IT IS LOCATED ON THE FAR RIGHT OF THE COCKPIT AND MY INSTRUCTOR WAS LOOKING TO THE LEFT, EXPLAINING SOME OF THE FUNCTIONS OF THE GPS. OTHER FACTORS ARE: 1) MY INSTRUCTOR DOESN'T USUALLY FLY THIS APCH BECAUSE HE HAS BEEN TEACHING MOSTLY IN ANOTHER AIRPLANE WITH A G-1000 GLASS COCKPIT. ITS GPS HAS MORE MEMORY, SO HE USUALLY FLIES THE RNAV (GPS) Y RWY 23 APCH (WHICH HAS A DIFFERENT MISSED APCH PROC MUCH CLOSER TO THE ARPT) AND NOT AVAILABLE IN THE DATABASE OF THE ACFT WE WERE USING, AND 2) THE LAST TIME HE FLEW THE RNAV (GPS) Z RWY 23 APCH IT WAS BEFORE THE ADIZ CHANGE AND FEDIT WAS OUTSIDE THE ADIZ BOUNDARY. I BELIEVE THE PROBLEM COULD BE CORRECTED BY REVISING THE MISSED APCH PROC AND/OR RECHARTING THE APCH TO INCLUDE THE ADIZ BOUNDARY. SUPPLEMENTAL INFO

FROM ACN 753702: IN SUMMARY, THERE WERE THREE CONTRIBUTING FACTORS TO OUR UNINTENTIONAL INCURSION INTO THE ADIZ AIRSPACE. THERE WERE: 1) HIGH WORKLOAD DUE TO THE STUDENT'S UNFAMILIARITY WITH THE GPS SYSTEM WHICH RESULTED IN LIMITED OPPORTUNITY FOR ME TO OBSERVE THE MAP DISPLAY DURING THE MISSED APCH PROC. 2) MY INCORRECT ASSUMPTION THAT, BASED ON THE DEPICTION OF THE NEARBY ADIZ AIRSPACE ON THE APCH CHARTS FOR THE EARLIER VOR RWY 34 APCH AT DMW, THE SAME DEPICTION OF THIS AIRSPACE WOULD BE PRESENT ON THE GPS APCH AND SUBSEQUENT MISSED APCH INTO FDK, AND 3) BELIEF THAT ABSENCE ANY APPARENT REASON TO DO SO, THAT THE APCH DESIGNERS WOULD NOT UNNECESSARILY PLACE ONE OR MORE OF THE APCH FIXES WITHIN THE RESTR ADIZ AIRSPACE.

### **Synopsis**

A PLT AND INSTRUCTOR ON A FDK RNAV Z RWY 23 PRACTICE FLEW INTO THE ADIZ ON THE MISSED APCH BECAUSE OF A GPS CONFIGURATION AND NO ADIZ PLOTTED ON THE APCH PLATE.

**ACN: 748405**

## **Time / Day**

Date : 200708  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US

## **Environment**

Flight Conditions : VMC  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.TRACON : ZZZ.TRACON  
Operator.Common Carrier : Air Carrier  
Make Model Name : EMB ERJ 145 ER&LR  
Operating Under FAR Part : Part 121  
Navigation In Use.Other : FMS or FMC  
Flight Phase.Climbout : Initial

## **Component : 1**

Aircraft Component : GPS & Other Satellite Navigation

## **Person : 1**

Affiliation.Company : Air Carrier  
Function.Flight Crew : Captain  
Function.Oversight : PIC  
Qualification.Pilot : ATP  
ASRS Report : 748405

## **Person : 2**

Affiliation.Company : Air Carrier  
Function.Flight Crew : First Officer  
Qualification.Pilot : Commercial  
ASRS Report : 748407

## **Events**

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Other Spatial Deviation  
Independent Detector.Other.Flight CrewA : 1  
Independent Detector.Other.Flight CrewB : 2  
Resolatory Action.None Taken : Detected After The Fact  
Consequence.Other

## **Assessments**

Problem Areas : Aircraft

## **Narrative**

I SET UP MY FMS WITH THE DEP PROC. ALL REQUIRED CHECKS OF THE FMS WERE COMPLETED ACCORDING TO FM1 AND AOM V1. BOTH FMS 1 AND 2 WERE SET CORRECTLY. DURING THE TAXI CHECKLIST BOTH FMS'S WERE CHECKED AND WERE SET CORRECTLY FOR RWY. AFTER A NORMAL TAKEOFF, NAV WAS SELECTED. I NOTICED THAT MY FMS DISPLAY SHOWED US RIGHT OF COURSE AND FO'S FMS DISPLAYED SHOWED US LEFT OF COURSE WITH NO MALFUNCTION INDICATION. THE FO WAS FOLLOWING THE FLIGHT DIRECTOR BARS UNTIL I NOTIFIED HIM OUR FMS INDICATIONS WERE NOT THE SAME. AT THAT TIME HE ROLLED THE WINGS LEVEL. SHORTLY AFTER ATC ASKED FOR OUR HEADING AND ASSIGNED US A NEW HEADING. WE STILL HAD NO MALFUNCTION INDICATIONS. WE WROTE IT UP ENROUTE AND FLIGHT CREW PLACARDED BOTH FMS'S. DISPATCH, MAINT CTL, AND ATC WERE NOTIFIED OF THE FAILURES. WE NOTIFIED ATC THAT WE WERE NEGATIVE RNAV AND THAT GPS'S HAD FAILED. WE CONDUCTED THE REMAINDER OF THE FLIGHT UNDER CONVENTIONAL NAVIGATION. SUPPLEMENTAL INFO FROM ACN 748407: ALL INDICATIONS SHOWED THE UNITS FUNCTIONING PROPERLY ON PREFLIGHT AND TAXI AND THERE WAS NO WARNING WHEN THE GPS'S FAILED. CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO: THE FO STATED THAT A POWER INTERRUPTION AT THE GATE PRIOR TO PUSHBACK MAY HAVE INITIATED THIS EVENT ALTHOUGH HE SEES NO REASON WHY AN FMC OR EICAS ALERT MESSAGE WAS NOT GENERATED AS IT SHOULD HAVE BEEN. THE EMB145 FMC AUTOMATICALLY ADJUSTS RNP FOR THE PHASE OF FLIGHT AND TYPE OF DEPARTURE/ARRIVAL/APPROACH BEING FLOWN. THE RNP AND GPS STATUS IS AVAILABLE IN THE FMC BUT THE CORRECT PAGE MUST BE SELECTED TO VIEW IT.

## **Synopsis**

AN EMB 145 EXPERIENCED DUAL GPS FAILURES CAUSING AN FMS LNAV DIFFERENCE BETWEEN THE CAPT AND FO. THE EICAS DID NOT ALERT ABOUT THE GPS FAILURES.

**ACN: 747186**

## **Time / Day**

Date : 200707  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Airport : SBKP.Airport  
State Reference : FO  
Altitude.MSL.Bound Lower : 3000  
Altitude.MSL.Bound Upper : 5000

## **Environment**

Flight Conditions : Mixed  
Weather Elements : Rain  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.Tower : SBKP.Tower  
Operator.Common Carrier : Air Carrier  
Make Model Name : Boeing Company Undifferentiated or Other Model  
Operating Under FAR Part : Part 121  
Navigation In Use.Other : FMS or FMC  
Navigation In Use.Other : GPS  
Flight Phase.Descent : Approach  
Route In Use.Approach : Instrument Non Precision

## **Aircraft : 2**

Controlling Facilities.Tower : SBKP.Tower  
Make Model Name : Small Transport, Low Wing, 2 Turboprop Eng

## **Person : 1**

Affiliation.Company : Air Carrier  
Function.Flight Crew : First Officer  
Qualification.Pilot : ATP  
Experience.Flight Time.Last 90 Days : 300  
Experience.Flight Time.Total : 11500  
Experience.Flight Time.Type : 5000  
ASRS Report : 747186

## **Person : 2**

Affiliation.Company : Air Carrier  
Function.Flight Crew : Captain  
Function.Oversight : PIC  
Qualification.Pilot : ATP  
Experience.Flight Time.Last 90 Days : 160  
Experience.Flight Time.Total : 11500

Experience.Flight Time.Type : 2500  
ASRS Report : 747111

### **Person : 3**

Affiliation.Company : Air Carrier  
Function.Flight Crew : Relief Pilot  
Qualification.Pilot : ATP  
Qualification.Pilot : CFI  
Qualification.Pilot : Flight Engineer  
Experience.Flight Time.Last 90 Days : 150  
Experience.Flight Time.Total : 10000  
Experience.Flight Time.Type : 4000  
ASRS Report : 746934

### **Events**

Anomaly.Conflict : Airborne Less Severe  
Anomaly.Inflight Encounter : Weather  
Independent Detector.Aircraft Equipment : TCAS  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.Controller : Issued New Clearance  
Resolatory Action.Flight Crew : Executed Missed Approach  
Resolatory Action.Flight Crew : Took Precautionary Avoidance Action

### **Assessments**

Problem Areas : ATC Human Performance  
Problem Areas : Flight Crew Human Performance

### **Narrative**

ON JULY/WED/2007 WE -- A CREW OF THREE -- WERE INBOUND TO CAMPINAS, BRAZIL. BASED ON FORECAST WINDS AND ATIS, WE BRIEFED THE RNAV (GPS) APCH TO RWY 33, USING VNAV PROCS. WX WAS IFR WITH RAINSHOWERS AND NUMEROUS TSTMS IN THE VICINITY. SAO PAULO APCH (RADAR CTLED) CLRED US DIRECT TO CPN VOR BEFORE HANDOFF TO CAMPINAS APCH, WHICH ADVISED THEY DID NOT HAVE RADAR SURVEILLANCE (EXCEPT, WE REALIZED SHORTLY, THROUGH PHONE ADVISORIES FROM SAO PAULO RADAR). REFERENCE THE RNAV (GPS) APCH TO RWY 33, CAMPINAS, BRAZIL. AS WE APCHED CPN VOR FROM THE N, THERE WAS A VERY LARGE RAINSHOWER LESS THAN A MILE E OF THE FINAL COURSE, FROM ATOX (FAF) TO RWY 33, DOMINATING THE LENGTH OF THE FINAL COURSE SEGMENT AND MOVING NW TOWARD THE FIELD. AREA CLOUDS OUTSIDE SHOWERS WERE ABOUT 2000 FT SCATTERED, 4000 FT BROKEN. THE CAMPINAS CTLR SAID WE COULD EXPECT THE GPS APCH TO RWY 33, THEN CLRED US TO IK BEACON, WHICH IS NOT ON THE RNAV (GPS) RWY 33 APCH. WE THEN CLEARLY ASKED FOR DIRECT CPN VOR AND THE RNAV (GPS) PROC AND WERE CLRED AS REQUESTED. NEAR CPN VOR, THE CTLR CLRED US TO 5000 FT, WHICH IS 500 FT BELOW THE RECOMMENDED PROC ALT OUTBOUND FROM THE IAF, AFAV. WE VERIFIED THE ALT ASSIGNED, WE HAD GOOD VISIBILITY AHEAD LEAVING 5500 FT AND 5000 FT WAS SAFE OF TERRAIN. WE REPORTED OUTBOUND FROM AFAV ON THE PROC. WE HAD TURNED LEFT TO THE MANEUVERING SIDE FOR A 'TEARDROP' OUTBOUND. THE CTLR IMMEDIATELY CLRED US 'DIRECT TO ATOX' (THE FAF) AND 'DESCEND TO 3300 FT.' (THAT ALT IS ALLOWED ON THE PROC ONLY AFTER ESTABLISHED ON COURSE, INBOUND.) WE BEGAN A RIGHT TURN TO ATOX AND BEGAN A SLOW RATE OF DESCENT TO 3300 FT UNTIL ON AN

INTERCEPT TO FINAL COURSE. AS WE BEGAN OUR DESCENT TO 3300 FT IN THE RIGHT TURN TO FINAL AND ATOX, THE CAMPINAS CTLR INFORMED US THAT 'SAO PAULO RADAR ADVISES' WE HAD TFC IN OUR TURN, MOVING ACROSS OUR PATH SOUTH TO NORTH.. WE HAD TFC ON TCAS 600 FT BELOW US, CONVERGING AT 2 O'CLOCK POSITION. WE STOPPED DESCENT AS CAMPINAS APCH DIRECTED 'YOU MUST MAKE A LEFT TURN TO FINAL TO AVOID TFC -- YOU ARE CLRED DIRECT ATOX AND 3300 FT FOR TFC.' WE ADVISED WE HAD TFC ON TCAS AND WOULD DESCEND AFTER CLR. WE CLBED BACK TOWARD 5000 FT TO INCREASE TFC SEPARATION IN THE DIRECTED LEFT TURN. THE LEFT TURN SERVED TO KEEP US IN THE PATH OF THE ACFT LONGER THAN THE COMPLETED TURN TO FINAL WOULD HAVE, WE REMAINED WELL ABOVE THE TFC'S ALT. INBOUND TO ATOX, WE VISUALLY CONFIRMED A LIGHT TWIN-PROPPED ACFT MOVING SLOWLY AWAY FROM OUR 5 TO 3 O'CLOCK POSITION. ON AN INTERCEPT TO FINAL, AND ABLE TO SEE THE GND, WE AGAIN BEGAN DESCENT TO 3300 FT AS CLRED. WE PROGRAMMED 'DIRECT TO ATOX' IN THE LEGS PAGE, THEN EXECUTED THE 'DIRECT.' THIS CAUSED THE LT PROGRAMMED AT ATOX (3300 FT) TO DELETE. RE-ENGAGING THE VNAV PROFILE THAT REMAINED IN THE BOX CAUSED THE AUTOPLT TO ATTEMPT A RAPID DESCENT TO 2600 FT, THE SELECTED FINAL MDA ON THE MCP, EVEN BEFORE REACHING ATOX, THE FAF. (PUBLISHED APCH MDA IS 2580 FT.) THE HIGH DESCENT RATE CAUSED A MOMENTARY ACTIVATION OF THE GPWS. WE AGGRESSIVELY ENSURED CORRECT FAF ALT AT ATOX. TAKING TIME TO CONFIRM POSITION, ALT AND CORRECT PROGRAMMING, CAUSED A SLIGHTLY LATE DESCENT AFTER THE FAF. APCH SPD WAS 158. HVY RAINSHOWERS WERE NOW MOVING ACROSS THE FINAL COURSE AND THE FIELD. CAMPINAS APCH ADVISED CEILING AT 1200 FT AND VISIBILITY AT 2000 METERS IN HVY RAIN (COMPATIBLE WITH THE APCH). OUR DESCENT PUT US OVER THE VDP, BUT ABOVE MDA, IN A DENSE RAIN SHAFT, AT THE SAME TIME WE SAW THE FIELD. WE EXECUTED A MISSED APCH AS PUBLISHED. CAMPINAS APCH CLRED US TO 5000 FT, DIRECT AFAV. AGAIN AT AFAV, WE REPORTED OUTBOUND ON THE MANEUVERING SIDE OF THE PROC AND THE CTLR CLRED US FOR 'LEFT TURN, DIRECT ATOX, DESCEND TO 3300 FT.' THIS SEEMS CONTRARY TO THE INTENT OF THE PROC, FOLLOWING THESE DIRECTIONS AT THE POINT GIVEN WOULD PUT AN ACFT 2200 FT BELOW THE RECOMMENDED ALT FOR THE PUBLISHED TURN PROC. NOTABLY, THIS INSTRUCTION WAS GIVEN WITHOUT RADAR SURVEILLANCE TO CONFIRM IF WE WERE AT ALL THE NEAR THE FINAL COURSE, OR EVEN INBOUND. BY NOW, THE RAINSHOWERS HAD MOVED ON AND THE WX WAS RAPIDLY CLEARING. NOW IN VMC, AND ON AN INTERCEPT TO FINAL AND ATOX, WE DESCENDED TO 3300 FT AND COMPLETED THE APCH AND NORMAL LNDG. A SAFETY CONCERN, ESPECIALLY IN A GLASS COCKPIT, WHEN CLRED FOR A PROC THEN TOLD TO 'PROCEED DIRECT' TO THE FINAL APCH FIX IN THE MIDST OF THE PROC: IF THE LEGS PAGE ONE WERE TO PROGRAM 'DIRECT' TO THE FAF: 1) THE ACFT WILL PROCEED DIRECT IN THE SHORTEST TURN DIRECTION, NOT NECESSARILY IN THE DIRECTION OF TURN PROCS AND THE ALT PROGRAMMED AT THE FIX MAY DELETE. 2) THE VNAV ALT PROTECTION PROGRAMMED AT THE FIX PRIOR TO THE FAF IS REMOVED WHEN THAT FIX IS DELETED AS A DE-FACTO OF THE 'DIRECT.' IN VNAV AUTOPLT MODE, THE ACFT WILL TRY TO DESCEND AS REPROGRAMMED, EXACTLY AS IT DID IN OUR CASE NEAR THE FAF, AND THE CHANGED PROFILE MAY NO LONGER INCLUDE SAFE ALT CONSTRAINTS. CAMPINAS APCH IS ISSUING DIRECTIONS WHICH CAN COMPLICATE PROFILE MANAGEMENT, PARTICULARLY IN GLASS COCKPITS. CAMPINAS APCH DIRECTED NUMEROUS TURNS AND ALTS WITHOUT KNOWING EXACTLY WHERE WE WERE LOCATED. SAO PAULO RADAR WAS NOT ABLE TO PROTECT THE AIRSPACE IN THE CAMPINAS APCH CORRIDOR.



## **Synopsis**

FLT CREW REPORTS QUESTIONABLE ALTITUDE CLEARANCES BY SKBP TRACON DURING RNAV GPS RWY 33 APPROACH TO SBKP AND TRAFFIC CONFLICT DURING THE PROCEDURE TURN INBOUND.

**ACN: 745159**

## **Time / Day**

Date : 200707  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Navaid : LGC.VORTAC  
State Reference : GA  
Altitude.MSL.Bound Lower : 11000  
Altitude.MSL.Bound Upper : 23000

## **Environment**

Flight Conditions : Mixed  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.ARTCC : ZTL.ARTCC  
Controlling Facilities.TRACON : A80.TRACON  
Operator.Common Carrier : Charter  
Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer  
Operating Under FAR Part : Part 91  
Navigation In Use.Other : FMS or FMC  
Flight Phase.Descent : Approach  
Route In Use.Arrival.STAR : MIKEE 4

## **Person : 1**

Affiliation.Company : Charter  
Function.Flight Crew : Captain  
Function.Oversight : PIC  
Qualification.Pilot : ATP  
Experience.Flight Time.Last 90 Days : 223  
Experience.Flight Time.Total : 7400  
Experience.Flight Time.Type : 3004  
ASRS Report : 745159

## **Events**

Anomaly.Non Adherence : FAR  
Anomaly.Non Adherence : Published Procedure  
Anomaly.Other Spatial Deviation  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.None Taken : Unable  
Consequence.FAA : Reviewed Incident With Flight Crew

## **Assessments**

Problem Areas : Airspace Structure  
Problem Areas : Chart Or Publication  
Problem Areas : FAA

## **Narrative**

AS HAS HAPPENED ON NUMEROUS OCCASIONS, ATLANTA CENTER, AT THE REQUEST OF ATLANTA APCH, ASSIGNED THE MIKEE 4 STAR TO THE CARTERSVILLE, GA, ARPT (VPC). THIS PROC DOES NOT EXIST, AS VPC IS NOT SHOWN ON THE ARR. ATLANTA APCH CTLRS WITH WHOM I HAVE DISCUSSED THIS ISSUE HAVE INDICATED THAT THEIR COMPUTERIZED ARR PROFILES INCLUDE THIS NONCOMPLIANT PROC AND MANDATE ITS ASSIGNMENT. CERTAIN FMS AND GPS SYSTEMS DO NOT ALLOW MODIFICATION OF STARS TO INCLUDE DESTS NOT SHOWN IN THE PROCS, FORCING CREWS TO INVENT SOLUTIONS DURING A CRITICAL PHASE OF FLT. THE USE OF STANDARDIZED ARR CORRIDORS LIKE THE MIKEE ARR IS IMPORTANT IN MANAGING THE HIGH VOLUME OF TFC TO SATELLITE ARPTS IN THE VICINITY OF ATLANTA HARTSFIELD/JACKSON ARPT (ATL). THE EASIEST SOLUTION TO THIS PROBLEM WOULD BE ADDING VPC TO THIS ARR PROC, AS CTLRS HAVE SUGGESTED IN THEIR OWN RPTING CHANNELS. CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO: RPTR STATED THAT HE HAS BEEN TRYING FOR SOME TIME TO HAVE VPC ADDED TO THE MIKEE FOUR ARR BUT NO ONE HAS LISTENED TO HIM. CURRENTLY PLTS ARE VECTORED TO THE ARPT TO RPT IT IN SIGHT. DURING IMC, PLTS PROGRAM THE FMS TO AN FMS AVAILABLE ARPT AND FROM THAT ARPT TO A VPC APCH. THE ATC CTLRS UNDERSTAND THIS DILEMMA BUT ARE UNABLE TO EFFECT A CHART CHANGE THEMSELVES. THE RPTR BELIEVES THAT THE SIMPLEST CHANGE ALLOWING CREWS TO PROGRAM APCHES DIRECTLY TO VPC AFTER MIKEE IS TO LIST VPC AS A POSSIBLE DEST ON THIS ARR, THEREBY ALLOWING CHARTING PROCS COMPANIES AN AVENUE IN THE FMS PROGRAMMING TO PROCEED FROM MIKEE TO A VPC IAF. BUNNI INTXN TO ATL IS NEARLY DIRECTLY OVER THE EVZ FAF TO VPC RWY 19 BUT NORMAL PROFILING ON THE ATL ARR CROSSES BUNNI AT 8,000 FT.

## **Synopsis**

PILOT REPORTS ATC ASSIGNS THE MIKEE FOUR ARR TO VPC WHEN VPC IS NOT AN APPLICABLE ARPT. PLTS ARE UNABLE TO PROGRAM APCHS FROM THE MIKEE STAR TO VPC.

**ACN: 745153**

## **Time / Day**

Date : 200707  
Local Time Of Day : 0601 To 1200

## **Place**

Locale Reference.Airport : HWD.Airport  
State Reference : CA  
Altitude.MSL.Single Value : 5000

## **Environment**

Flight Conditions : VMC  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.TRACON : NCT.TRACON  
Operator.General Aviation : Personal  
Make Model Name : Skylane 182/RG Turbo Skylane/RG  
Operating Under FAR Part : Part 91  
Navigation In Use.Other : GPS  
Flight Phase.Descent : Approach  
Route In Use.Arrival : On Vectors

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Qualification.Pilot : Private  
Experience.Flight Time.Last 90 Days : 50  
Experience.Flight Time.Total : 1400  
Experience.Flight Time.Type : 600  
ASRS Report : 745153

## **Events**

Anomaly.Other Anomaly.Other  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.None Taken : Anomaly Accepted

## **Assessments**

Problem Areas : ATC Human Performance  
Problem Areas : Chart Or Publication

## **Narrative**

I HAD A SLIGHTLY UNUSUAL EXPERIENCE THE OTHER DAY, MOSTLY SO, BECAUSE I DIDN'T THINK IT WAS POSSIBLE. I WAS ENRTE TO HWD, AN ARPT THAT I LAND AT, AT LEAST ONCE OR TWICE A WK. THE WX WAS OVC010/10SM, WITH THE

MARINE LAYER MINS FROM DISSIPATING FOR THE DAY. WHAT WAS INTERESTING ABOUT THIS VERY ROUTINE RIDE WAS THAT IT WAS MY FIRST SHOT AT THE NEW RNAV (GPS) Z RWY 28L. THE OLD APCH WAS THE GPS RWY 28L, A VNAV+V. WHEN I FIRST BRIEFED THE NEW PLATE, I NOTICED THAT BOTH THE FAF (SUDGE) AND THE INTERMEDIATE FIX IMMEDIATELY PRECEDING (JOCPI) HAD BEEN MOVED ABOUT 5 MI FARTHER OUT FROM THE MAP THAN ON THE OLD APCH. SO, FROM SOMEWHERE N OF LVK, I GET 'DIRECT JOCPI.' I WAS PLEASED TO SEE THAT THIS NORMAL PROC WAS STILL IN PLACE, AS I WOULD HAVE BEEN BUMMED TO FIND OUT THAT I'D BE SENT TO THE NEW IAF WITH A 5 NM HILPT, 20 MI OUT OF MY WAY. AS I APCHED WITHIN ABOUT 2 NM OF JOCPI, THE CTLR ASKED: 'ACFT X CONFIRM YOU'RE DIRECT JOCPI, I SHOW IT YOU'RE 2 O'CLOCK, 2 MI.' 'NEGATIVE, I SHOW JOCPI MY 12 O'CLOCK, 2 MI.' 'ACFT X, NEGATIVE, TURN R HDG 240!' (THINGS TEND TO GET A LITTLE HECTIC AROUND HERE, AS THE HWD AND OAK FINALS RUN SO CLOSE TOGETHER, THEY WEAVE TFC AND TREAT THEM LIKE ONE FINAL.) I ASKED THE CTLR, 'SIR, ARE YOU AWARE THAT BOTH JOCPI AND SUDGE HAVE BEEN MOVED SIGNIFICANTLY AS OF 2 DAYS AGO, WITH THE COMMISSIONING OF THIS NEW GPS ZULU APCH?' 'UM, NEGATIVE!' 'I NOW SHOW JOCPI MY 1 O'CLOCK, 3 MI, DO YOU CONCUR?' 'NEGATIVE, BUT I'LL TAKE YOUR WORD FOR IT, MAINTAIN 3500 UNTIL ESTABLISHED.' NEEDLESS TO SAY, I WAS PRETTY SURPRISED THAT THE CTLRS COULD NOT POSSIBLY HAVE BEEN BRIEFED ON THESE CHANGES PRIOR TO THEIR TAKING EFFECT. FURTHER, WITH ALL THE BIZJET TFC GOING INTO HWD DAILY, THAT THIS WASN'T STUMBLER UPON IN THE PRECEDING 2 DAYS. YEAH, KINDA BORING, BUT NOTHING ELSE TO RPT. I DIDN'T FILE AN ASRS, AS I ALWAYS THINK THAT SOMEONE ELSE ALREADY CALLED THE FIRE DEPT. OF COURSE, NOW I HAVE FILED THE ASRS RPT. THE BIG QUESTIONS ARE: SHOULD FIXES BE MOVED WITHOUT RENAMING THEM? AND, HOW COULD ATC BE BEHIND THE CURVE ON SUCH A SUBSTANTIAL CHANGE? THAT ALL SAID, THE GENERAL LEVEL OF PROFESSIONALISM AND EXCELLENCE OF NORCAL APCH IS REMARKABLY WONDERFUL. CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO: THE REPORTER STATED THAT HE BELIEVES THE CONTROLLER WORKING HIS FLT DISCOVERED VERY QUICKLY THAT THE CHANGES HE POINTED OUT WERE ACCURATE AND THAT OTHER CONTROLLERS WERE QUICKLY NOTIFIED ABOUT THE CHANGES ALSO.

## **Synopsis**

A CESSNA PILOT REPORTS NCT WAS NOT AWARE OF DME CHANGES AT INTXNS SUDGE AND JOCPI UNTIL HE BEGAN THE HWD RNAV (GPS) Z RWY 28L APCH.

**ACN: 741081**

## **Time / Day**

Date : 200706  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US

## **Environment**

Flight Conditions : IMC  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.TRACON : ZZZ.TRACON  
Operator.General Aviation : Personal  
Make Model Name : Cessna 340/340A  
Operating Under FAR Part : Part 91  
Navigation In Use.ILS.Localizer Only : 10L  
Navigation In Use.Other : GPS  
Flight Phase.Descent : Approach  
Flight Phase.Landing : Go Around  
Flight Phase.Landing : Missed Approach

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Qualification.Pilot : Private  
Experience.Flight Time.Last 90 Days : 30  
Experience.Flight Time.Total : 560  
Experience.Flight Time.Type : 65  
ASRS Report : 741081

## **Events**

Anomaly.Non Adherence : Clearance  
Anomaly.Other Anomaly.Other  
Anomaly.Other Spatial Deviation  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.Controller : Issued New Clearance  
Resolatory Action.Flight Crew : Became Reoriented  
Resolatory Action.Flight Crew : Executed Go Around

## **Assessments**

Problem Areas : Flight Crew Human Performance

## **Narrative**

WHILE ON APCH TO RWY 10L IN IMC, I WAS VECTORED TO 4 MI WITHIN THE ILS TO RWY 10L AND INSTRUCTED TO CONTACT TWR WHEN ESTABLISHED. I HAD 2 CDI'S SET, AND A MOVING MAP ON AN MX20. AS THE SECONDARY CDI BEGAN TO MOVE SHOWING I WAS BECOMING ESTABLISHED, I PUNCHED UP THE TWR FREQ. THEN I NOTICED THE PRINCIPAL CDI WAS NOT ACTING PROPERLY. I DOUBLE-CHKED AND TRIPLE-CHKED FREQS AND OTHER SETTINGS TO SEE WHY THIS WAS OCCURRING. AS I DID SO, I MUST HAVE DRIFTED BACK N OFF THE APCH COURSE, BUT DID NOT NOTICE THIS. TWR CALLED ASKING IF I WAS ON FREQ AND WHEN I RESPONDED IN THE AFFIRMATIVE, TWR SAID THEY WERE SHOWING ME N OF COURSE. ONE CDI SHOWED THIS, BUT I REALIZED I COULD NOT TRUST MY PRINCIPAL CDI, THOUGH I DID NOT KNOW WHY. THE MOVING MAP CONFIRMED I WAS N, BUT I WAS CONFUSED AND CONCERNED BY THE CONFLICT IN THE PRINCIPAL CDI WHICH I REALIZED WAS NOT WORKING. I REALIZED I WAS BEING CONFUSED BY THE CDI THAT WAS NOT CONFIRMING MY POS, SO I TOLD TWR I'D LIKE TO GAR. TWR INSTRUCTED ME TO CLB TO 2000 FT (AS I RECALL AND FLY RWY HDG) AND THEN TO GO BACK TO MY PREVIOUS ASSIGNED FREQ. UPON PUNCHING UP APCH, I HEARD MY GAR WAS CAUSING TROUBLE AND THEY'D BEEN TRYING TO CONTACT ME WHEN I WAS ON TWR FREQ. WHEN I ESTABLISHED RADIO COM, APCH BEGAN TO VECTOR ME FOR A GAR. HOWEVER, I BEGAN TO HAVE TROUBLE CTLING MY ACFT. I COULD NOT GET IT TO CLB UNDER AUTOPLT, AND I BEGAN TO BECOME DISORIENTED AND HAD TROUBLE HOLDING A STEADY CLB OR HDG WHEN HAND-FLYING. TO GAIN CTL I WOULD LEVEL THE WINGS, WHICH PUT ME OUT OF COMPLIANCE WITH ATC INSTRUCTIONS. ATC ISSUED NEW INSTRUCTIONS, AND WHEN I TRIED TO COMPLY WITH THOSE, THE ACFT BECAME DIFFICULT TO CTL. I THOUGHT AUTOPLT WAS STILL ON, AND WHEN I WOULD PUNCH IT OFF, I STILL HAD A HARD TIME CTLING CLBS. THE YOKE WAS HVY, AND IF I BACKED OFF ON PRESSURE, IT WOULD DIVE, THEN I'D HAVE TO PULL BACK IT, IT WOULD CLB TOO FAST. THE TRIM WHEEL SEEMED UNRESPONSIVE AND I REALIZED I WAS BECOMING INCREASINGLY DISORIENTED AND CAUSING TROUBLE FOR ATC. FINALLY I MANAGED TO CALM MYSELF AND FLY THE AIRPLANE ON AN ALT AND HDG AND TO COMPLY WITH INSTRUCTIONS TO REJOIN THE ILS. DURING THE GAR, AFTER I HAD REGAINED CTL OF MYSELF AND THE ACFT, I REALIZED MY ERROR IN SETTING UP THE PRINCIPAL CDI (BUTTON ON GPS NOT SET TO VLOC BUT TO GPS INSTEAD) AND FLEW A SUCCESSFUL ILS. MY FAILURE TO CORRECTLY SELECT THIS ON THE FIRST APCH WAS THE BEGINNING OF SEVERAL ERRORS. PUNCHING UP THE TWR BEFORE I WAS FULLY ESTABLISHED IS ANOTHER. I LET MYSELF BECOME DISTR BY THE FIRST TWO, WHICH SHOOK MY CONFIDENCE AND THEN MY SKILLS AND PARALYZED MY ABILITY TO PROPERLY FOLLOW ATC INSTRUCTIONS AND FLY THE PROPER HDG AND ALT. WHILE I KNEW THIS WAS HAPPENING, I SEEMED UNABLE TO CTL THE ACFT PROPERLY, BUT WAS INTENT ON NOT LOSING CTL IN IMC AND CONTINUED TO FOCUS ON TRYING TO REGAIN MY COMPOSURE AND APPLY MY TRAINING TO DOING THE TASK. FINALLY, WHEN I REALIZED THE ERROR ON THE VLOC/GPS BUTTON, I REGAINED MY CONFIDENCE AND CONTINUED TO FLY THE ACFT. ALTHOUGH IFR CURRENT, I HAVE NOT FLOWN IMC FOR SOME TIME, AND THIS I THINK CONTRIBUTED TO MY INABILITY TO PROPERLY FOLLOW ATC INSTRUCTION. I REALIZE HOW EASY IT IS TO BECOME DISORIENTED IN IMC, EVEN AFTER FLYING IFR FOR PRACTICE AND DURING IMC WITH MUCH HIGHER CEILINGS.

## **Synopsis**

C340 PLT EXECUTED GO-AROUND AFTER FAILING TO TRACK LOC. DURING THE MANEUVER, THE PLT BECAME DISORIENTED, BUT WAS ABLE TO REGAIN COMPOSURE, PROPERLY TUNE LOC, AND COMPLETE THE APCH.

**ACN: 736691**

## **Time / Day**

Date : 200704  
Local Time Of Day : 1801 To 2400

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 2500

## **Environment**

Flight Conditions : Mixed

## **Aircraft : 1**

Controlling Facilities.TRACON : ZZZ.TRACON  
Operator.General Aviation : Personal  
Make Model Name : PA-28 Cherokee Arrow IV  
Operating Under FAR Part : Part 91  
Flight Phase.Descent : Approach  
Route In Use.Arrival : On Vectors

## **Component : 1**

Aircraft Component : Engine

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Instrument  
Qualification.Pilot : Private  
Experience.Flight Time.Last 90 Days : 22.9  
Experience.Flight Time.Total : 737.5  
Experience.Flight Time.Type : 201  
ASRS Report : 236691

## **Events**

Anomaly.Aircraft Equipment Problem : Critical  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.None Taken : Unable  
Consequence.Other : Aircraft Damaged

## **Assessments**

Problem Areas : Aircraft  
Problem Areas : Flight Crew Human Performance  
Problem Areas : Weather

## **Narrative**



I WAS RETURNING FROM A BUSINESS TRIP TO ZZZ1. I RECEIVED A WX BRIEFING FROM FSS. A DIRECT FLT TO MY DEST (ZZZ) WAS NOT ADVISED DUE TO TORNADO WARNINGS ALONG THE RTE. AFTER A DISCUSSION WITH THE BRIEFER, AN ALTERNATE RTE TO CIRCUMNAV THE HOSTILE WX WAS CHOSEN. THE IFR RTE THAT WAS FILED WAS A TOTAL OF 729 NM. THE SPD THAT I ESTIMATED TO FLY WAS 130 KTS. AT APPROX XA00, I FUELED THE AIRPLANE AT THE ZZZ1 SELF-SERVE PUMP WITH 40 GALLONS OF FUEL, TO TOP OFF BOTH FUEL TANKS. I PERFORMED MY PREFLT INSPECTION AND SUMPED THE TANKS, NOTICING AN UNUSUAL AMOUNT OF SEDIMENTS FLOATING IN THE AVGAS SAMPLE. I WAS CONCERNED, BUT DID NOT THINK THE SEDIMENTS WOULD ADVERSELY AFFECT THE SAFETY OF MY FLT. WITH FULL FUEL ON BOARD AT TKOF, I ESTIMATED 6 HRS 33 MINS OF FUEL AVAILABLE TO MAKE THE FLT. THE FLT PROCEEDED UNEVENTFULLY WITH THE EXCEPTION THAT MY GPS WAS ESTIMATING THAT I WAS ONLY TRAVELING AT A RATE OF 120 KTS DUE TO STRONG HEADWINDS. I WAS ALSO ADVISED ON 2 OCCASIONS TO CIRCUMNAV AREAS OF HVY TSTMS. BTWN THE STRONG HEADWINDS AND THE NEED TO GO AROUND BAD WX CELLS, THE DISTANCE THAT I ULTIMATELY FLEW INCREASED AND THE SPD DECREASED, RESULTING IN A CHANGE IN THE TOTAL HRS OF FUEL NECESSARY FOR THE FLT. AFTER BEING CLRED FOR THE APCH TO RWY AT ZZZ, I BEGAN MY PRE-LNDG CHKLIST. I THROTTLED BACK TO LOSE ALT AND ENCOUNTERED A COMPLETE LOSS OF ENG PWR APPROX 18 NM FROM THE ARPT. I TRIED UNSUCCESSFULLY TO RESTART THE ACFT, AND MADE SURE THAT I WAS USING THE R TANK WHICH WAS VISUALLY INDICATING APPROX 1/6 (6 GALLONS) OF AVAILABLE FUEL REMAINING ON THE PANEL GAS GAUGE. THE ENG SPATTERED BUT WOULD NOT RESTART SO I DECLARED AN EMER TO ZZZ APCH AND SOUGHT A SUITABLE OFF-ARPT SITE TO LAND. I LANDED AT APPROX ON THE GRASS MEDIAN BTWN THE EBOUND AND WBOUND LANES OF HWY. THE LNDG GEAR WAS UP (BY CHOICE) RESULTING IN THE PROP STRIKING THE GND. ALL PAX (2 PLUS THE PLT) DEPARTED THE AIRPLANE WITHOUT INJURY. AT THIS POINT, I AM NOT EXACTLY SURE OF THE PROX CAUSE OF THE ENG FAILURE OTHER THAN TO DESCRIBE IT AS ENG STARVATION. THERE WAS 6 GALLONS OF FUEL REMAINING IN THE R TANK AFTER THE LNDG TOOK PLACE. THIS WAS NOT A LOT, BUT IT WAS SURELY ENOUGH TO COMPLETE THE FLT SUCCESSFULLY. CONCERNING THE CHAIN OF EVENTS, THE NEED TO RERTE AROUND ADVERSE WX STARTED A NEW CYCLE OF EVENTS THAT WAS DIFFERENT FROM THAT WHICH WAS PLANNED. STRONGER HEADWINDS AND THE RESULTING SLOWER GND SPDS ALSO PLAYED AN IMPORTANT FACTOR. I WILL BE MORE AWARE IN THE FUTURE TO RECALCULATE FUEL REQUIREMENTS AND POSSIBLY INCLUDE A REFUELING STOP. FORTUNATELY, THERE WERE NO INJURIES TO THE PAX ON BOARD AND ONLY MINOR DAMAGE TO THE ACFT.

## **Synopsis**

FOLLOWING MAX FUEL RANGE CROSS COUNTRY, PA28R LOSES POWER AND LANDS SHORT OF RWY AT DESTINATION.

**ACN: 736412**

### **Time / Day**

Date : 200704  
Local Time Of Day : 0001 To 0600

### **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 8000

### **Environment**

Flight Conditions : IMC  
Light : Night

### **Aircraft : 1**

Controlling Facilities.ARTCC : ZZZ.ARTCC  
Operator.Common Carrier : Air Carrier  
Make Model Name : Caravan 1 208A  
Operating Under FAR Part : Part 135  
Navigation In Use.Other : FMS or FMC  
Flight Phase.Cruise : Level

### **Component : 1**

Aircraft Component : GPS & Other Satellite Navigation

### **Component : 2**

Aircraft Component : Fuel System

### **Component : 3**

Aircraft Component : Attitude Indicator(Gyro/Horizon/ADI)

### **Person : 1**

Affiliation.Company : Air Taxi  
Function.Flight Crew : Single Pilot

### **Person : 2**

Function.Controller : Radar  
Qualification.Controller : Radar  
Qualification.Pilot : Commercial  
Experience.Flight Time.Last 90 Days : 75  
Experience.Flight Time.Total : 7000  
Experience.Flight Time.Type : 5000  
ASRS Report : 736412

### **Events**

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Inflight Encounter : Weather

Anomaly.Non Adherence : Clearance  
Anomaly.Other Spatial Deviation  
Independent Detector.Other.ControllerA : 2  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.Aircraft : Equipment Problem Dissipated  
Resolatory Action.Controller : Issued Advisory  
Resolatory Action.Flight Crew : Overcame Equipment Problem  
Resolatory Action.Flight Crew : Returned To Intended or Assigned Course  
Consequence.Other : Emotional Trauma

## Assessments

Problem Areas : ATC Human Performance  
Problem Areas : Aircraft  
Problem Areas : Flight Crew Human Performance

## Narrative

I HAD AN ACFT FOR MY FLT TONIGHT WHICH HAD A NEW FMS SYS (GARMIN 530'S AND MFD'S). I HAD OUR TRAINING ON THIS SYS WHICH WAS EXTENSIVE (8 HRS CLASS, 2 HRS INFLT). MY FIRST FLT WITH THIS ACFT WAS HAMPERED BY THE FACT THAT THE GPS PART OF THE GARMIN'S WAS DOWN, MAKING THEM MUCH LESS HELPFUL (IE, VIRTUALLY USELESS). I WAS HAVING TO NAV VIA VORS AND I DID A FINE JOB THROUGH THE FIRST 1/2 OF MY FLT. AS THE FLT DEVELOPED, A FUEL IMBAL WENT UNDETECTED. THE FUEL IMBAL WAS NOT TOO BIG (ACTUAL VALUE 300 LBS -- CARAVAN MAX 200) BUT IT APPARENTLY CAUSED ENOUGH OF AN ACFT OUT OF TRIM SITUATION TO WHERE THE ACFT AUTOPLT STOPPED VOR NAV TRACKING WHILE REMAINING ROUGHLY ON HDG. I WAS SLOW TO RECOGNIZE BOTH THE FUEL IMBAL/OUT OF TRIM AND NAV ERRORS. WHEN ATC QUERIED ME AS TO WHY I WAS APPROX 40 DEGS OR SO OFF COURSE, I ASKED FOR A VECTOR WHILE I SORTED OUT GETTING BACK ON MY FLT PATH. HAVING NEW EQUIP THAT WAS ONLY PARTIALLY FUNCTIONAL AND BEING NIGHT IFR MADE THIS CHALLENGING. UNFORTUNATELY THIS WAS NOT THE END OF MY PROBS ON THIS FLT. WHILE I WAS ATTEMPTING TO COPE WITH THE FUEL IMBAL AND TRIM PROBS (AND NAV PROBS), I NOTICED MY PRIMARY AND SECONDARY (PLT/COPLT) ATTITUDE INDICATION SYS HAD MAJOR DISAGREEMENTS. THE PRIMARY ATTITUDE INDICATOR WAS APPROX 20 DEGS OFF IN PITCH. THIS BECAME MY TRUE PRIMARY PROB AT THIS POINT. ALL MY ATTN HAD TO BECOME FOCUSED ON RECTIFYING THE TRIM PROB AND THEREBY SOLVING THE ATTITUDE INDICATION PROBS. BEING 5 MINS OR SO INTO THIS PROB, ATC HAD MADE ADDITIONAL INQUIRIES INTO MY STATUS. I HAD TO PUT OFF THEIR INQUIRIES WHILE I GOT THE ACFT BACK ON LEVEL/CONSTANT HDG FLT. THEY WERE SOMEWHAT MIFFED. GIVEN THE ATTITUDE INDICATION PROBS, I WAS CLOSE TO DECLARING AN EMER. I DIDN'T BECAUSE AS I STARTED TO RESOLVE THE FUEL IMBAL/TRIM MY ATTITUDE INDICATORS CAME BACK INTO AGREEMENT. AS I WAS GETTING CLOSER TO MY DEST, I ALSO FINALLY GOT RELIABLE NAV RESTORED OFF THE VOR OF MY HOME FIELD. MY PRIMARY PROBS ON THIS FLT WERE NAV DEFICIENCIES AND FAILURE TO PROMPTLY RESPOND TO ATC QUERIES. THE ROOT CAUSE WAS MY ALLOWING NORMALLY BENIGN PROBS (FUEL IMBAL) TO DEVELOP ON A NIGHT DURING WHICH I ALREADY HAD MAJOR SYS LIMITATIONS AND REALLY COULDN'T COPE WITH MUCH ELSE.

## Synopsis

C208 PLT, UNFAMILIAR WITH NEW FMS SYSTEM -- FOR WHICH THE GPS FUNCTION WAS INOPERATIVE -- ENCOUNTERS NUMEROUS PROBLEMS WITH NAVIGATION AND ACFT ATTITUDE CONTROL.

**ACN: 735290**

## **Time / Day**

Date : 200704  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 1200

## **Environment**

Flight Conditions : Marginal  
Light : Daylight

## **Aircraft : 1**

Operator.General Aviation : Personal  
Make Model Name : Cessna 210 Centurion / Turbo Centurion 210C, 210D  
Operating Under FAR Part : Part 91  
Flight Phase.Cruise : Level

## **Component : 1**

Aircraft Component : AC Generator/Alternator

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Private  
Experience.Flight Time.Last 90 Days : 40  
Experience.Flight Time.Total : 800  
Experience.Flight Time.Type : 650  
ASRS Report : 735290

## **Events**

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Inflight Encounter : VFR In IMC  
Anomaly.Inflight Encounter : Weather  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.None Taken : Anomaly Accepted

## **Assessments**

Problem Areas : Aircraft  
Problem Areas : Flight Crew Human Performance  
Problem Areas : Weather

## **Narrative**

BEFORE DEP I MADE A LAST CHK OF THE WX, WHICH SHOWED LEGAL CEILINGS AND VISIBILITY, TOOK A GOOD LOOK AT THE SKY IN MY DEP DIRECTION, WHICH

LOOKED FLYABLE AND DEPARTED. RPTD CEILING WAS 1700 FT BROKEN WHEN I LEFT, WITH THE LOWEST RPTD CEILING OF 1300 FT BROKEN, 2700 FT OVCST ON MY RTE. ON DEP CLBOUT, I BECAME DISTRACTED WHEN I NOTICED MY GENERATOR WAS NOT CHARGING. I ENGAGED THE AUTOPLT AND TOOK A FEW MINS TO TROUBLESHOOT THE GENERATOR, WHEN IT SUDDENLY STARTED WORKING. WHILE I WAS ENGAGED IN THIS, THE ACFT HAD CLBED A BIT AND I LOOKED UP TO SEE SOLID IMC AND MY ALT HAD INCREASED TO 1800 FT. AFTER A SLIGHT MOMENT OF INTENSE PANIC I REGAINED COMPOSURE AND DSNDDED BACK INTO VFR. IF I HAD BEEN SMART, I WOULD HAVE TURNED BACK IMMEDIATELY. AFTER A FEW MORE MINS, CEILINGS LOWERED TO AROUND 1200 FT MSL. I KNEW I HAD GOOD WX IN AT MOST 50 MORE MI SO I FOOLISHLY ELECTED TO CONTINUE. THE CEILINGS LOWERED TO ABOUT 1000 FT MSL AND I FINALLY DECIDED TO TURN BACK TO HOUSTON. WHEN I MADE THE TURN I SAW THAT THE WX HAD WORSENERED BEHIND ME. NOT WANTING TO RE-ENTER THE BUSY HOUSTON AIRSPACE AT BELOW 1000 FT, WITH NO GUARANTEE OF FINDING MY ARPT, I TURNED MY ACFT TOWARD HOME AND ENTERED IMC. IF I HAD NOT HAD A CONFIRMATION OF CLR WX AT THE HOME ARPT, I WOULD HAVE CALLED ZHU AND DECLARED AN EMER. IN RETROSPECT, I SHOULD HAVE CALLED THEM AND REQUESTED AN IFR POPUP. AT LEAST I WOULD HAVE BEEN IN THE SYS. I KEPT THE AUTOPLT ENGAGED, NAVING BY GPS AND PROCEEDED TO SLOWLY CLB TO 2500 FT MSL. I REASONED THAT 2500 FT WOULD KEEP ME SEPARATED FROM ANY IFR TFC AND NO OTHER VFR PLT WOULD BE FOOLISH ENOUGH TO FLY AT 2500 FT. AFTER WHAT SEEMED AN ETERNITY, BUT WAS IN REALITY ONLY 20 MINS OR SO, THE GND BEGAN APPEARING AGAIN AND I WAS ABLE TO DSND TO A LEGAL ALT AND REMAIN CLR OF CLOUDS. THE REST OF THE FLT WAS UNEVENTFUL AND I MADE A STANDARD APCH AND LNDG AT MY HOME ARPT. I AM RESOLVED TO NEVER, EVER LET THIS HAPPEN TO ME AGAIN. IT WAS FOOLISH. TO HELP MAKE MYSELF A SAFER PLT, I AM GOING TO PURSUE FINISHING MY IFR RATING AND IN THE MEANTIME I AM RAISING MY PERSONAL MINIMUMS TO AT LEAST 2000 FT AGL AND 5 MI VISIBILITY ON THE ENTIRE RTE, I OR WILL NOT GO.

## **Synopsis**

FOLLOWING A DEP INTO MARGINAL VFR CONDITIONS AND DISTRACTED BY A MALFUNCTIONING GENERATOR, A LOW TIME PRIVATE PLT FINDS HIMSELF IN SOLID IMC.

**ACN: 733122**

## **Time / Day**

Date : 200703  
Local Time Of Day : 0601 To 1200

## **Place**

Locale Reference.Airport : AIK.Airport  
State Reference : GA  
Altitude.MSL.Bound Lower : 3000  
Altitude.MSL.Bound Upper : 4000

## **Environment**

Flight Conditions : IMC  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.TRACON : AGS.TRACON  
Operator.General Aviation : Personal  
Make Model Name : Bonanza 33  
Operating Under FAR Part : Part 91  
Flight Phase.Descent : Approach  
Route In Use.Approach : Instrument Non Precision

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Commercial  
Experience.Flight Time.Last 90 Days : 30  
Experience.Flight Time.Total : 6000  
Experience.Flight Time.Type : 1000  
ASRS Report : 733122

## **Events**

Anomaly.Altitude Deviation : Crossing Restriction Not Met  
Anomaly.Altitude Deviation : Excursion From Assigned Altitude  
Anomaly.Non Adherence : Clearance  
Anomaly.Non Adherence : Published Procedure  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.Flight Crew : Executed Go Around

## **Assessments**

Problem Areas : Flight Crew Human Performance

## **Narrative**

AT 7000 FT I WAS ADVISED BY APCH TO EXPECT A VISUAL APCH INTO AIK. AFTER GETTING ATIS, AIK WAS RPTING 1700 FT. I ADVISED AGS I WOULD DO THE GPS 7 APCH. I WAS CLRED TO DSND TO AND MAINTAIN 4000 FT, WHILE WAITING ON

A KING AIR TO COMPLETE THEIR APCH. I WAS VECTORED WITH SEVERAL TURNS. AFTER THE KING AIR RPTED CANCELING IFR, AGS CTLR CLRED ME TO 3000 FT AND MAINTAIN THIS TO THE IAF (VIXLY) AND ESTABLISHED ON THE FINAL APCH COURSE. THOUGH HE SAID PEPCI, VIXLY AND PEPCI ARE CLOSE INBOUND. WHEN I PUT THE APCH INTO MY GPS (GARMIN 530) I MISTAKENLY ACCEPTED THE FAF (PEPCI). I DSNDED TO 3000 FT AND HEADED FOR PEPCI (I SHOULD HAVE BEEN GOING TO VIXLY). THE CTLR QUESTIONED WHAT I WAS DOING. I DECIDED TO GO MISSED APCH SINCE I WAS NOT FOLLOWING HIS CLRNC AND ADDING PWR AND THINKING I SHOULD RETURN TO 4000 FT I CLBED TO 3300 FT OR 3400 FT THEN REALIZED I SHOULD BE AT 3000 FT. WENT TO VIXLY -- DID THE PROC TURN AND COMPLETED THE APCH TO RWY 7 CORRECTLY.

### **Synopsis**

A B33 EXECUTED A GO AROUND ON THE AIK RWY 7 GPS AFTER DESCENDING TOWARD THE FAF PRIOR TO THE IAF.



**ACN: 732454**

## **Time / Day**

Date : 200703  
Local Time Of Day : 0001 To 0600

## **Place**

Locale Reference.Navaid : SEA.VORTAC  
State Reference : WA  
Altitude.MSL.Single Value : 3000

## **Environment**

Flight Conditions : IMC  
Weather Elements : Turbulence  
Light : Night

## **Aircraft : 1**

Controlling Facilities.TRACON : S46.TRACON  
Operator.Other : Government  
Make Model Name : Cessna Aircraft Undifferentiated or Other Model  
Operating Under FAR Part : Part 91  
Navigation In Use.Other : GPS  
Flight Phase.Cruise : Level  
Route In Use.Enroute : On Vectors

## **Person : 1**

Function.Flight Crew : First Officer  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Qualification.Pilot : Private  
Experience.Flight Time.Last 90 Days : 25  
Experience.Flight Time.Total : 2700  
Experience.Flight Time.Type : 650

## **Events**

Anomaly.Inflight Encounter : Weather  
Anomaly.Other Anomaly.Other  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.None Taken : Anomaly Accepted

## **Assessments**

Problem Areas : ATC Human Performance  
Problem Areas : Weather

## **Narrative**

LAST WEEK AT THE CONCLUSION OF A NIGHT MISSION WHILE ON A VFR FLT PLAN, WE HAD TO 'POP-UP' FOR AN INST CLRNC WITH NAVY WHIDBEY ATC TO

REACH OUR DEST. THE CLRNC WAS GRANTED AND WE WERE VECTORED TO A HDG OF 130 DEGS AND A CLB TO 3000 FT. WE COMPLIED AND ENTERED IMC. AFTER BEING HANDED OFF TO SEATTLE APCH, STILL IMC, WE CHKED IN AND THE CTLR CONFIRMED HAVING US WITH HIM. AFTER A WHILE AT 3000 FT ON A HDG OF 130 DEGS WE BEGAN TO PASS IN AND OUT OF THE BASES OF THE CLOUD LAYER, BUT STILL MOSTLY IMC. I CONFIRMED VIA GPS AND GND DEAD RECOGNITION THAT WE WERE E OF BELLEVUE, STILL HDG 130 DEGS, I THEN NOTICED WE WERE PASSING I-90 STILL ON A HDG OF 130 DEGS AND ENTERED SOLID IMC AGAIN. I KNEW THAT THIS HDG WAS TAKING US TOWARDS HIGH TERRAIN. THIS MADE ME VERY NERVOUS AS THE CTLR HAD NOT TURNED US TO A MORE SOUTHERLY HDG AS I EXPECTED, AND I KNEW THAT THE TERRAIN WAS GOING TO START RAISING ABOVE OUR ALT VERY QUICKLY. I TOLD THE PIC TO CONTACT THE CTLR TO INQUIRE ABOUT THIS SITUATION. HE DID, AND THE CTLR WAS APPARENTLY NOT AWARE THAT WE WERE IMC ON AN IFR CLRNC. HE IMMEDIATELY GAVE US NEW VECTOR OF 180 DEGS AND A DSCNT TO 2000 FT. WE COMPLIED, AND EVENTUALLY POPPED OUT OF THE CLOUD LAYER AT ABOUT 2000 FT INTO VMC, I LOOKED TO THE E AND SAW THAT WE WERE A BIT TOO CLOSE TO THE HIGH TERRAIN TO THE E FOR MY COMFORT. WE WERE VMC AT THIS POINT, HAD A VISUAL OF OUR DEST AND CANCELED OUR IFR CLRNC -- THE REST OF THE FLT WAS UNEVENTFUL. THE PIC AND I DISCUSSED THIS AND COULD ONLY FIGURE THAT SINCE WE WERE ON A VFR FLT PLAN INITIALLY, AND HAD TO 'POP-UP' FOR AN INST CLRNC THAT THIS IS WHAT CAUSED THE CONFUSION. IN MY NEARLY 20 YRS OF FLYING IFR AROUND THESE PARTS THIS IS THE FIRST TIME I HAVE EXPERIENCED SUCH AN EVENT, AND IT MADE ME THINK -- UMMMMMM -- WHAT IF? LOOKING BACK, THE SITUATION QUICKLY WAS TURNING INTO A FORMULA FOR DISASTER -- HAD WE JUST FLEW ALONG FAT AND HAPPY WAITING FOR THE CTLR TO VECTOR US, I BELIEVE THAT THE FLT WOULD HAVE MET WITH A MUCH LESS THAN DESIRABLE OUTCOME AND WE'D BECOME A STATISTIC, WHICH IS NOT MY IDEA OF FUN. OUR DECISION AS PLTS TO AVOID THIS SAME SITUATION AGAIN, BASED ON THE CHAIN OF EVENTS LEADING UP TO WHAT MAY HAVE BEEN AN ACCIDENT IS, THAT WHILE IMC WHEN WE GET A HDG TO A DIFFERENT CTLR, OUR INITIAL CONTACT WILL BE SOMETHING LIKE: 'APCH, THIS IS FLT XXXXX WITH YOU AT XXXXX (ALT) IFR TO XXXXX.' EMPHASIZE ON THE IFR FOR CLARIFICATION. THAT WAY EVERYONE IS ON THE SAME PAGE. I THINK THE BOTTOM-LINE IS THAT EVERYONE IS HUMAN, EVERYONE MAKES MISTAKES AND AS PLTS WE NEED TO BE AWARE OF OUR POS AT ALL TIMES AND QUESTION THE SITUATION IF THERE IS ANY AMOUNT OF DOUBT -- COMPLACENCY KILLS. REMEMBER FAR PART 91.3 -- YOU HAVE AUTH IN THE COCKPIT.

## **Synopsis**

A CESSNA'S IFR FLT STATUS WAS CONFUSED WHEN TRANSFERRING FROM ONE ATC FAC (NUW) TO ANOTHER (S46 TRACON) WITH TERRAIN BECOMING A FACTOR.

**ACN: 732180**

## **Time / Day**

Date : 200703

Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Airport : MDPP.Airport

State Reference : FO

Altitude.AGL.Single Value : 1800

Altitude.MSL.Single Value : 2900

## **Environment**

Flight Conditions : VMC

Light : Daylight

## **Aircraft : 1**

Controlling Facilities.TRACON : MDPP.TRACON

Operator.Common Carrier : Air Carrier

Make Model Name : B737 Undifferentiated or Other Model

Operating Under FAR Part : Part 121

Navigation In Use.Other : FMS or FMC

Navigation In Use.Other : GPS

Flight Phase.Descent : Approach

## **Component : 1**

Aircraft Component : GPWS

## **Person : 1**

Affiliation.Company : Air Carrier

Function.Flight Crew : Captain

Function.Oversight : PIC

ASRS Report : 732180

## **Person : 2**

Affiliation.Company : Air Carrier

Function.Flight Crew : First Officer

ASRS Report : 732181

## **Person : 3**

Affiliation.Government : Foreign

Function.Controller : Approach

## **Events**

Anomaly.Aircraft Equipment Problem : Less Severe

Independent Detector.Aircraft Equipment : GPWS

Independent Detector.Other.Flight CrewA : 1

Resolatory Action.Flight Crew : Executed Missed Approach  
Resolatory Action.Flight Crew : Took Precautionary Avoidance Action

## **Assessments**

Problem Areas : Aircraft  
Problem Areas : Chart Or Publication  
Problem Areas : Flight Crew Human Performance

## **Narrative**

DURING RNAV/GPS APCH TO RWY 8 AT POP/MDPP IN VISUAL MET CONDITIONS A PARTIAL TERRAIN AUDIO WAS HEARD WITH PULL UP DISPLAYED ON BOTH PFDS. EVENT OCCURRED IN VICINITY OF KELSO AT APPROX 1800 RA AND 2900 BARO WITH LOCAL ALTIMETER 30.01. PRIOR TO WARNING ALL PARAMETERS APPEARED NORMAL, TRACKING LNAV, RNP.3, ON VNAV PATH, AUTOPLT ENGAGED, ACFT CONFIGURED WITH NO OTHER ALERTS OR WARNINGS. APCH ABANDONED AND CONTINUED AS VISUAL APCH TO LNDG. AT THIS POINT I BELIEVE THE APCH WAS BEING CONDUCTED PROPERLY AND THERE MAY BE AN ANOMALY IN THE DATABASE OR APCH DESIGN WHICH CAUSED THE WARNING. PRECIPITOUS TERRAIN UNDERLYING THE APCH DID NOT APPEAR TO BE A THREAT. CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO: RPTR STATES THAT THE GPWS WARNING WAS VERY BRIEF, LASTING LESS THAN A SECOND WITH NO PULL UP COMMANDS. THE ACFT WAS IN A STEADY DESCENT AS IT PASSED OVER KELSO AND THE RIDGE THAT PROBABLY CAUSED THE WARNING WAS CLEARLY VISIBLE. THE RPTR SENT IN THE RPT TO CAUTION OTHERS THAT THEY MAY RECEIVE AN UNWARRANTED GPWS WARNING PASSING KELSO.

## **Synopsis**

B737 CREW RPTS GPWS WARNING DURING RNAV APCH TO RWY 8 AT MDPP.

**ACN: 731001**

## **Time / Day**

Date : 200701  
Local Time Of Day : 0001 To 0600

## **Place**

Locale Reference.Airport : RNH.Airport  
State Reference : WI

## **Person : 1**

Affiliation.Company : Corporate  
Function.Flight Crew : Captain  
Function.Oversight : PIC  
Qualification.Pilot : ATP  
Qualification.Pilot : CFI  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Experience.Flight Time.Last 90 Days : 50  
Experience.Flight Time.Total : 7000  
Experience.Flight Time.Type : 250  
ASRS Report : 731001

## **Events**

Anomaly.Other Anomaly.Other  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.None Taken : Anomaly Accepted

## **Assessments**

Problem Areas : ATC Human Performance  
Problem Areas : FAA

## **Situations**

ATC Facility.Procedure Or Policy : ZMP.ARTCC

## **Narrative**

THIS REPORT REFERS TO AN ON-GOING SITUATION WITH STARS IN THE MINNEAPOLIS-ST PAUL AREA. SINCE THE OPENING OF RUNWAY 17-35 AT MINNEAPOLIS/ST PAUL, A SERIES OF NEW SIDS AND STARS WERE ADDED FOR AIRPORTS IN THE AREA. RNH HAS ONE PUBLISHED STAR, THE AGUDE1, BUT WE ARE OFTEN ASSIGNED OTHER STARS. THE PROBLEM ARISES IN THE FACT THAT AIRCRAFT ARRIVING AT RNH FROM THE SOUTH THROUGH THE NORTHWEST ARE ROUTINELY ASSIGNED THE ENCEE ONE AND TWOLF ONE, EVEN THOUGH THEY ARE NOT LISTED AS STARS FOR RNH. A LOCALLY BASED BUSINESS JET FLIES FROM SLC TO RNH ON A REGULAR BASIS. THE FLIGHT CREW IS OFTEN ASSIGNED THE ENCEE ONE ARRIVAL. THE FLIGHT CREW MUST ENTER EITHER MSP OR ST PAUL AS THE NEW DESTINATION SINCE THAT STAR IS NOT LISTED IN THE FLIGHT MANAGEMENT SYSTEM (FMS) DATABASE FOR RNH. SOME OUT-OF-TOWN PILOTS

FLYING TO RNH HAVE COMPLAINED ABOUT THE HIGH WORKLOAD AND THE SCRAMBLE FACTOR INVOLVED IN TRYING TO FIND AND CROSS TRGET INTERSECTION AT 8000 FEET ON THE TWOLF ONE ARRIVAL TO A MINNESOTA AIRPORT, NOT THE AIRPORT HE/SHE MAY BE FLYING TO, ESPECIALLY WHEN IT IS TOTALLY UNEXPECTED. PLEASE ADD RNH TO THE ABOVE LISTED STARS. THE REQUIRED WAYPOINTS WILL THEN BE AVAILABLE IN GPS AND FMS DATABASES UNDER RNH FOR PILOTS TO USE, THUS MAKING THE ARRIVALS SAFER AND EASIER.

### **Synopsis**

PLT VOICED CONCERN REGARDING ATC ASSIGNED STAR PROCS THAT DO NOT TERMINATE AT RNH, REQUIRING FIX INPUTS FOR FMS.

**ACN: 729632**

## **Time / Day**

Date : 200702  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 4500

## **Environment**

Flight Conditions : IMC  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.TRACON : ZZZ.TRACON  
Operator.General Aviation : Personal  
Make Model Name : Cessna Stationair/Turbo Stationair 6  
Operating Under FAR Part : Part 91  
Flight Phase.Descent : Approach

## **Component : 1**

Aircraft Component : Attitude Indicator(Gyro/Horizon/ADI)

## **Component : 2**

Aircraft Component : GPS & Other Satellite Navigation

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Instrument  
Qualification.Pilot : Private  
Experience.Flight Time.Last 90 Days : 6  
Experience.Flight Time.Total : 635  
Experience.Flight Time.Type : 6  
ASRS Report : 729632

## **Person : 2**

Affiliation.Government : FAA  
Function.Controller : Approach

## **Events**

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Altitude Deviation : Excursion From Assigned Altitude  
Anomaly.Cabin Event : Passenger Illness  
Anomaly.Non Adherence : Clearance  
Anomaly.Other Anomaly

Anomaly.Other Anomaly : Speed Deviation  
Anomaly.Other Spatial Deviation  
Resolatory Action.Controller : Provided Flight Assist  
Resolatory Action.Flight Crew : Overcame Equipment Problem  
Resolatory Action.Flight Crew : Regained Aircraft Control

## Assessments

Problem Areas : Aircraft  
Problem Areas : Flight Crew Human Performance  
Problem Areas : Weather

## Narrative

I FILED AN IFR FLT PLAN WITH FLT SVC FOR A FLT FROM ZZZ1 TO ZZZ2. THE RTE REQUESTED WAS GPS DIRECT. ON THE GND IN THE AIRPLANE, I CALLED APCH AND WAS GIVEN A CLRNC AND VOID TIME. THE CLRNC WAS DIRECT ABC THEN DIRECT ZZZ2, EXPECTING THE GPS RWY 31 APCH. I PROGRAMMED ZZZ2 INTO THE GPS UNIT BUT DID NOT ENTER THE APCH AT THAT TIME, THINKING IT WAS EASY TO DO IN THE AIR. SOMETIMES THE ROUTING IS CHANGED BY APCH IN THE AIR ANYWAY. I TOOK OFF AND AFTER CALLING APCH ON THE RADIO, CLBED TO THE ASSIGNED ALT OF 6000 FT. PART OF THE CLB WAS THROUGH IMC, BUT THE CLOUD TOPS WERE ABOUT 5700-6300 FT, SO I WAS ON TOP PART OF THE TIME. MEANWHILE, I TRIED TO ENTER THE APCH INTO THE GPS BUT WAS NOT SUCCESSFUL. I AM MUCH MORE FAMILIAR WITH THE GARMIN SERIES 400 AND 500 GPS UNITS. THIS AIRPLANE (CESSNA STATIONAIR T206) HAS A HONEYWELL BENDIX/KING KLN94 INSTALLED. THE OP IS SIMILAR TO THE GARMIN, BUT THERE WAS ENOUGH DIFFERENCE TO CONFUSE MY ABILITY TO PROGRAM IT DURING THE STRESS OF THIS FLT. DURING THIS FLT, I WAS HAVING CONSIDERABLE DIFFICULTY MAINTAINING THE CTLR ASSIGNED DIRECTIONS AND ALTS. AT FIRST, I THOUGHT THAT IT WAS THE ACTIVITY OF PROGRAMMING THE GPS THAT WAS TAKING MY ATTN FROM THE FLT INSTS. THIS WAS PROBABLY PARTLY THE PROB. HOWEVER, AFTER HAVING BEEN CLRED AND DSNDING TO A LOWER ALT (COMPLETELY IN IMC), I STARTED TO HAVE A SERIOUS CTL PROB. FORTUNATELY THIS AIRPLANE HAS A BACKUP ATTITUDE INDICATOR (AI) (ARTIFICIAL HORIZON) ON THE COPLT'S SIDE (BUT FAIRLY LOW ON THE FAR SIDE OF THE COPLT'S YOKE). AT SOME POINT I LOOKED AT THE BACK UP AND I AND NOTICED IT WAS SHOWING A STEEP TURN WHILE THE ONE IN FRONT OF ME (ON THE PLT'S SIDE) WAS SHOWING LEVEL. I THEN REALIZED THAT MY AI WAS FAILING AND STARTED TO USE THE BACKUP AI. HOWEVER, BECAUSE OF MY INST TRAINING, IT WAS VERY HARD TO GET USED TO REFERRING TO THE BACKUP AI CONSTANTLY AND IGNORING THE PRIMARY AI IN FRONT OF ME. DURING ALL OF THIS TIME, THE DIRECTION CTL AND ALT CTL WAS VERY DIFFICULT, DEVIATING MAYBE 30 DEGS FROM THE ASSIGNED HDG AND MAYBE +/-400 FT FROM THE ASSIGNED ALT. PERHAPS BECAUSE I HAD SLOWED THE AIRPLANE DOWN CONSIDERABLY DURING ALL OF THIS, APCH CTL LET AT LEAST ONE FASTER AIRPLANE (MALIBU) GO PAST ME. TO DO THIS, I WAS CONSTANTLY ASSIGNED NEW HDGS TO PUT ME IN A KIND OF HOLDING PATTERN. THIS WENT ON FOR SEVERAL MINS WHILE I STRUGGLED WITH THE AIRPLANE. (I DID RPT THE FAULTY INST TO APCH BUT I ALSO MENTIONED MY BACK-UP AI.) 1 PAX GOT SICK FROM THE MOTION. FINALLY I WAS ASSIGNED 3000 FT AND UPON REACHING THAT ALT COULD SEE GND BELOW ME. I CONTINUED DOWN AND CANCELED IFR AFTER REACHING ABOUT 2600 FT MSL. AFTER THAT, THERE WERE NO PROBS WITH AIRPLANE CTL AND I PROCEEDED TO PAO TO LAND SMOOTHLY. I HAD NOTICED WHEN I WAS AT ZZZ2



EARLIER IN THE DAY THAT THE AI TOOK A LONG TIME TO ORIENT ITSELF. ONCE IN THE AIR I DID NOT NOTICE A PROB WITH THIS INST, BUT I WAS VFR FROM ZZZ2 TO ZZZ3 AND LATER FROM ZZZ3 TO ZZZ1. IN RETROSPECT, THERE WERE MANY THINGS I COULD HAVE DONE TO MAKE THE PROB LESS SERIOUS: FIRST, I SHOULD HAVE PROGRAMMED THE KLN94 GPS COMPLETELY ON THE GND AT ZZZ1 PRIOR TO TKOF. ALTHOUGH I WAS CONFUSED IN THE AIR, I WOULD HAVE FIGURED IT OUT ON THE GND (OR CANCELED THE CLRNC). ONCE RECOGNIZING THE KEY DIFFERENCE FROM THE GARMIN PROGRAMMING PROC, I MAY NOT HAVE HAD A PROB REPROGRAMMING THIS GPS IF LATER REQUIRED IN THE AIR. SECOND, ONCE RECOGNIZING A BAD AI, I SHOULD HAVE COVERED IT SO I WOULD NOT BE ABLE TO INADVERTENTLY USE IT. I HAVE KEPT A SUCTION CUP TYPE COVER IN MY FLT BAG FOR MAYBE 18 YRS FOR THIS PURPOSE BUT NEVER NEEDED IT BEFORE, AND FORGOT ABOUT IT THIS TIME WHEN I DID NEED IT. THIRD, I SHOULD HAVE HAD MORE TRAINING ON THIS SPECIFIC GPS. THE PARTICULAR PROGRAMMING SEQUENCE TO DO WHAT WAS NEEDED FOR THIS FLT CONTAINS AT LEAST 1 STEP THAT IS MUCH MORE CONFUSING THAN THE STEPS FOR PROGRAMMING APCHS INTO THE GARMIN 530. ON THIS NOTE, I WOULD LIKE TO ADD THAT THERE NEEDS TO BE MORE STANDARDIZATION AMONG THE DIFFERENT GPS BRANDS AND MODELS. I FEEL THAT THE GARMIN IS MORE INTUITIVE COMPARED TO THE KLN94. BUT THE KLN94 HAS SOME STEPS THAT COULD BE IMPORTANT IN FLT PROGRAMMING THAT WOULD BE MORE DIFFICULT TO IMPLEMENT IN THE GARMIN 530 DURING FLT IN INST CONDITIONS. ESPECIALLY FOR A RENTER OF AIRPLANES, IT IS NECESSARY TO BE PROFICIENT IN DIFFERENT MODELS OF GPS UNITS WHEN RENTING AIRPLANES WITH DIFFERENT EQUIP.

## **Synopsis**

A IFR/IMC C206 PILOT REPORTS CONFUSION AND ATTITUDE CTL PROBLEMS USING AN UNFAMILIAR ADVANCED NAV SYSTEM IN FLT FOLLOWING AN ADI FAILURE.

**ACN: 728453**

## **Time / Day**

Date : 200702  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 4500

## **Environment**

Flight Conditions : VMC  
Light : Daylight

## **Aircraft : 1**

Operator.General Aviation : Instructional  
Make Model Name : Skyhawk 172/Cutlass 172  
Operating Under FAR Part : Part 91  
Flight Phase.Descent : Intermediate Altitude

## **Aircraft : 2**

Make Model Name : PA-46 Malibu

## **Person : 1**

Affiliation.Other : Instructional  
Function.Instruction : Instructor  
Qualification.Pilot : CFI  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Experience.Flight Time.Last 90 Days : 72  
Experience.Flight Time.Total : 1700  
Experience.Flight Time.Type : 900  
ASRS Report : 728453

## **Person : 2**

Affiliation.Other : Instructional  
Function.Instruction : Trainee

## **Person : 3**

Function.Flight Crew : Single Pilot

## **Events**

Anomaly.Conflict : NMAC  
Independent Detector.Other.Flight CrewA : 1  
Independent Detector.Other.Flight CrewB : 2  
Resolatory Action.Flight Crew : Took Evasive Action

Miss Distance.Horizontal : 10

Miss Distance.Vertical : 15

## **Assessments**

Problem Areas : Flight Crew Human Performance

## **Narrative**

DURING A FLT TRAINING ACTIVITY, WE WERE IN A C172R G1000 EQUIPPED, TIS (TFC INFO SYS) INOP, HDG E (090 DEGS). THE STUDENT WAS FLYING A CONSTANT AIRSPD DSCNT FROM 5500 FT TO 3500 FT MSL. AT EXACTLY 4500 FT THE STUDENT YELLED AND JERKED THE CTL WHEEL L, WE HAD A VERY NEAR MISS WITH A PIPER MERIDIAN. IT WAS A DIRECT NEAR MIDAIR, BOTH ACFT WERE ON A DIRECT COLLISION COURSE. I (THE CFI) HAD MY HEAD DOWN PROGRAMMING THE GPS, WHEN THE STUDENT YELLED AND TURNED L. I LOOKED UP. THE OTHER ACFT WENT 10 FT TO THE R OF THE R MAIN WHEEL AND 15 FT BELOW IT. THE OTHER ACFT MADE NO EVASIVE MANEUVER TO AVOID THE COLLISION, I BELIEVE THE PLT OF THAT ACFT NEVER SAW OURS. IF MY STUDENT HAD NOT TURNED L OUT OF REACTION AND INSTEAD TURNED R AS THE AIM SAYS, I WOULD NOT BE ALIVE TO WRITE ABOUT THIS EVENT.

## **Synopsis**

A C172 PLT RPTS NMAC WITH PA46 WHILE TRAINING AT 4500 FT.

**ACN: 727789**

## **Time / Day**

Date : 200702  
Local Time Of Day : 1801 To 2400

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 1900

## **Environment**

Flight Conditions : VMC  
Light : Night

## **Aircraft : 1**

Controlling Facilities.Tower : ZZZ.Tower  
Operator.General Aviation : Instructional  
Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer  
Operating Under FAR Part : Part 91  
Flight Phase.Descent : Approach

## **Component : 1**

Aircraft Component : GPS & Other Satellite Navigation

## **Person : 1**

Affiliation.Other : Instructional  
Function.Instruction : Instructor  
Qualification.Pilot : CFI  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Experience.Flight Time.Last 90 Days : 60  
Experience.Flight Time.Total : 790  
Experience.Flight Time.Type : 75  
ASRS Report : 727789

## **Person : 2**

Affiliation.Other : Instructional  
Function.Instruction : Trainee

## **Person : 3**

Affiliation.Government : FAA  
Function.Controller : Local

## **Events**

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Non Adherence : FAR

Anomaly.Other Spatial Deviation  
Independent Detector.ATC Equipment : MSAW  
Independent Detector.Aircraft Equipment : TCAS  
Resolatory Action.Controller : Issued Alert  
Resolatory Action.Flight Crew : Exited Adverse Environment

## Assessments

Problem Areas : ATC Human Performance  
Problem Areas : Environmental Factor  
Problem Areas : Flight Crew Human Performance

## Narrative

IN CRUISE 40 MI FROM ZZZ AT 6500 FT MSL, I ASKED MY STUDENT (PVT, FIRST NIGHT XCOUNTRY, AND UNFAMILIAR WITH G1000 EFIS), TO CHK FIELD ELEVATION AND TPA AT ZZZ. I CANNOT REMEMBER HIS RESPONSE ON FIELD ELEVATION, PERHAPS INDICATING THAT I WASN'T REALLY LISTENING, AS THE NUMBER I WANTED WAS TPA. HE RESPONDED THAT PATTERN ALT WAS 1300 FT, WHICH HE LATER INFORMED ME WAS BASED ON AN INCORRECT ADDITION OF 200 FT INSTEAD OF 1000 FT TO THE FIELD ELEVATION, RATHER THAN REFERRING TO THE PUBLISHED TPA). DESIRING TO DEMONSTRATE THE VERT NAV DSCNT PLANNING TOOLS OF THE G1000 AVIONICS, I WAS ALREADY ON THE APPROPRIATE VNAV PAGE, AND FAILED TO CHK FIELD ELEVATION MYSELF EITHER WITH THE USE OF THE G1000 OR THE PAPER SECTIONAL CHART. THE VNAV PROFILE WAS PROGRAMMED FOR A DSCNT AT 600 FPM, TO ARRIVE 6 MI FROM THE ARPT AT 1600 FT (I INTENDED TO DSND TO TPA CLOSER TO THE ARPT, TO ENSURE THAT OUR ALT WAS 'PADDED' AND TO WAIT FOR THE FIELD IN SIGHT). WE FLEW THE PROFILE EXACTLY, AND I SELECTED TAWS ON THE MFD MAIN MAP SCREEN. ON INITIAL CONTACT WITH TWR, THE CTLR INSTRUCTED US TO SQUAWK A UNIQUE CODE, AND TO RPT 5 MI FINAL STRAIGHT-IN FOR RWY XX. HE ALSO ADVISED OF TFC IN THE PATTERN. WE COMPLETED OUR DSCNT AND LNDG CHKLISTS, AND I BEGAN TO SEARCH FOR THE RWY (WE HAD THE BEACON IN SIGHT) AND THE OTHER TFC. AT ABOUT 1900 FT MSL, I BECAME CONCERNED THAT WE WERE LOW BECAUSE I FELT THAT I SHOULD BE ABLE TO SEE THE RWY, THAT THE TFC IN THE PATTERN APPEARED TO BE ABOVE US, THAT THE MAP WAS 90% YELLOW (THE COLOR FOR LESS THAN 1000 FT BUT MORE THAN 100 FT AGL) AND THAT THE LIGHTS ON THE GND APPEARED TO INDICATE THAT WE WERE BELOW 1000 FT. I INSTRUCTED THE STUDENT TO CLB SEVERAL HUNDRED FT AND ASKED AGAIN WHAT TFC PATTERN WAS, WHILE MOVING TO THE WAYPOINT -- ARPT INFO PAGE. ALMOST IMMEDIATELY AFTER THE QUESTION, THE TWR CTLR ISSUED A LOW ALT ALERT, AND PROVIDED CURRENT ALTIMETER SETTING. I INSTRUCTED THE STUDENT TO CLB AGAIN, AND ASKED THE CTLR WHAT TFC PATTERN ALT WAS. I'M UNSURE IF THE CTLR HEARD OR RESPONDED, BECAUSE MY STUDENT (STILL UNCONCERNED) INFORMED ME AT ABOUT THE SAME TIME I VERIFIED THE CORRECT ALTIMETER SETTING AND THE FIELD ELEVATION ACCORDING TO THE GARMIN THAT FIELD ELEVATION WAS 1100 FT. I COMMANDED A CLB TO 2100 FT UNTIL THE ARPT AND APCH LIGHTING WERE IN SIGHT. I FELT THE PRIMARY CAUSE WAS THAT I FAILED TO DOUBLECHK FIELD ELEVATION (MUCH LESS CHK THE PAPER CHART). CONTRIBUTING FACTORS WERE THE PREOCCUPATION WITH THE VNAV FUNCTION, FAILURE TO REF THE PUBLISHED AFD AND SECTIONAL CHART, AND THE STUDENT'S FAILURE TO PROPERLY DEFINE AND IDENT TPA, AND THE FAILURE TO PROGRAM AND SELF-BRIEF THE NDB 35 (GPS OVERLAY) APCH PROC FOR SITUATIONAL AWARENESS (I

HAD REJECTED ITS USE BECAUSE THE FINAL APCH COURSE WAS NOT EXACTLY STRAIGHT-IN). EFIS WAS A FACTOR IN THAT, ON MOST OF MY FLTS TO THAT ARPT, I HAVE ONLY AN ALTIMETER AND PAPER CHART, SIMPLIFYING ALT AWARENESS. EFIS WAS A POSITIVE FACTOR IN TERRAIN WARNING AND EASE OF DISCOVERING ACTUAL FIELD ELEVATION WHEN THE PROB WAS DEFINED. I RECOMMEND THAT THE PIC FIRST POSITIVELY IDENT ALT AND TERRAIN INFO PRIOR TO DSCNT WITH THE ACTUAL PAPER CHARTS PRIOR TO DSCNT AND/OR VNAV PROGRAMMING. SECOND, THAT THE VNAV'S ALT ABOVE WAYPOINT (THEREFORE AGL) FEATURE BE USED INSTEAD OF, OR TO XCHK, MSL ALTS FOR DSCNTS TO LNDG. SAFE COMPLETION OF THE FLT WAS POSSIBLE BECAUSE OF PRIOR EDUCATION ON HUMAN FACTORS, SPECIFICALLY CFIT IN BOTH MOUNTAINOUS AND FLAT TERRAIN, PROMPTING MY IMMEDIATE CLB COMMAND AT THE FIRST DOUBT. ALSO, THE CTLR'S PROMPT LOW ALT WARNING WAS OBSERVANT AND HELPFUL, AND CAME AS SOON AS HE POSSIBLY COULD HAVE REALIZED WE HAD GONE (EVEN SLIGHTLY) LOWER THAN WAS NORMAL ON APCH.

### **Synopsis**

INSTRUCTOR AND STUDENT PLTS EXPERIENCE CFTT ON NIGHT VFR CROSS COUNTRY.

**ACN: 727728**

## Time / Day

Date : 200702  
Local Time Of Day : 1801 To 2400

## Place

Locale Reference.Airport : LAX.Airport  
State Reference : CA  
Altitude.MSL.Single Value : 400

## Environment

Flight Conditions : VMC  
Light : Night

## Aircraft : 1

Controlling Facilities.TRACON : SCT.TRACON  
Operator.Common Carrier : Air Carrier  
Make Model Name : B737-300  
Operating Under FAR Part : Part 121  
Navigation In Use.Other : FMS or FMC  
Flight Phase.Climbout : Takeoff  
Route In Use.Departure.SID : HOLTZ

## Person : 1

Affiliation.Company : Air Carrier  
Function.Flight Crew : Captain  
Function.Oversight : PIC  
Experience.Flight Time.Last 90 Days : 73  
Experience.Flight Time.Type : 4500  
ASRS Report : 727728

## Person : 2

Affiliation.Company : Air Carrier  
Function.Flight Crew : First Officer

## Person : 3

Affiliation.Government : FAA  
Function.Controller : Departure

## Events

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Non Adherence : Clearance  
Anomaly.Non Adherence : Published Procedure  
Anomaly.Non Adherence : Required Legal Separation  
Anomaly.Other Spatial Deviation  
Independent Detector.Other.ControllerA : 3  
Resolatory Action.Controller : Issued Alert

Resolatory Action.Controller : Issued New Clearance  
Resolatory Action.Flight Crew : Returned To Intended or Assigned Course  
Consequence.FAA : Reviewed Incident With Flight Crew

## **Assessments**

Problem Areas : Aircraft  
Problem Areas : Flight Crew Human Performance

## **Narrative**

CAPT TKOF USING HUD WITH TOGA ARMED LNAV SWITCHES DOWN FOR THE HOLTZ 7 RNAV DEP. AT 400 FT LNAV MODE ENGAGED (PER FOM) ACFT GUIDANCE SHOWING A L TURN TO COURSE. INITIALLY FOLLOWING GUIDANCE KNOWING THIS IS INCORRECT, I TURNED BACK TO A 250 DEG HDG AND AT THE SAME TIME ATC INQUIRED AND INSTRUCTED AN IMMEDIATE R TURN TO 250 DEGS TO AVOID CONFLICT. LOOKED AT THE XXX PAGE AND IT SHOWED THE ACTUAL RNP AT 3.52 WELL ABOVE THE 2.0 THRESHOLD REQUIRED FOR NAV PERFORMANCE. TOLD ATC WE NEED VECTORS RNAV UNRELIABLE. UPON FURTHER CLBOUT RNP, WENT BACK DOWN TO NORMAL READING OF ABOUT .5. ACCEPTED DIRECT TO NEXT FIX AND RESUMED THE DEP. FMC WAS VERIFIED PRIOR TO PUSH WITH THE CORRECT HOLTZ 7 DEP AND RWY 24L. RNAV DEP PROCS WERE REVIEWED IN THE TKOF BRIEFING. IN THE B-300 ACFT IF RNAV DEPS ARE REQUIRED, A SECOND FMC MUST BE INSTALLED TO MONITOR THE LEGS PAGE AND RNP. OUR FOM DIRECTS US TO DISPLAY THE TKOF REF PAGE DURING TKOF. MAKE THE SYS RELIABLE -- DUAL GPS SHOULD ALSO BE INSTALLED.

## **Synopsis**

B737-300 CREW DEVIATES FROM TRACK DURING INITIAL PHASE OF HOLTZ RNAV DEPARTURE FROM LAX.



**ACN: 726815**

## **Time / Day**

Date : 200702  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 2000

## **Environment**

Flight Conditions : IMC  
Weather Elements : Ice  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.TRACON : ZZZ.TRACON  
Operator.General Aviation : Personal  
Make Model Name : Bonanza 35  
Operating Under FAR Part : Part 91  
Flight Phase.Descent : Approach  
Route In Use.Arrival : On Vectors

## **Component : 1**

Aircraft Component : Oil Pump

## **Component : 2**

Aircraft Component : Navigational Equipment and Processing

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Instrument  
Qualification.Pilot : Private  
Experience.Flight Time.Last 90 Days : 21  
Experience.Flight Time.Total : 1377  
Experience.Flight Time.Type : 801  
ASRS Report : 726815

## **Person : 2**

Affiliation.Government : FAA  
Function.Controller : Approach

## **Events**

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Altitude Deviation : Excursion From Assigned Altitude  
Anomaly.Inflight Encounter : Weather

Anomaly.Maintenance Problem : Improper Maintenance  
Anomaly.Non Adherence : FAR  
Anomaly.Non Adherence : Published Procedure  
Anomaly.Other Spatial Deviation  
Independent Detector.Aircraft Equipment.Other Aircraft Equipment : Oil Press Ind.  
Heading Deviation  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.Flight Crew : Diverted To Another Airport  
Resolatory Action.Flight Crew : Overcame Equipment Problem  
Consequence.Other

## **Maintenance Factors**

Maintenance.Performance Deficiency : Inspection  
Maintenance.Performance Deficiency : Repair

## **Assessments**

Problem Areas : Aircraft  
Problem Areas : Chart Or Publication  
Problem Areas : Maintenance Human Performance  
Problem Areas : Weather

## **Narrative**

IN THE MORNING I RECEIVED AN FSS BRIEFING AND ALSO LOOKED AT NOAA WX ON-LINE. THE TRIP ORIGINATED AT ZZZ, US, WITH A STOP AT ZZZ1, US, ON AN IFR FLT PLAN. ON THIS LEG I QUICKLY PICKED UP ICE WHEN BRIEFLY ENTERING THE CLOUDS. AFTER DEPARTING ZZZ1 I ELECTED NOT TO PICK UP MY IFR FLT PLAN AND STAY UNDER THE CLOUD CEILING OF 3500 FT. FORECAST CEILINGS IN THE ZZZ2 AREA WERE 1300-2500 FT. I COULD NOT PICK UP ZZZ2 ATIS OR ZZZ2 AWOS UNTIL ABOUT 20 MI FROM ZZZ VOR. AT THIS TIME I HEARD OF CEILINGS OF 500-600 FT. I CLBED TO 3500 FT AND CALLED ZZZ2 APCH AND REQUESTED THE ILS. AT THIS TIME I BECAME AWARE OF A DROP IN OIL PRESSURE. ZZZ APCH GAVE ME AN INITIAL HDG OF 170 DEGS AND DSND TO 2000 FT. ON ENTERING THE CLOUDS THE DIRECTIONAL GYRO SEEM TO FIRST SWING OFF HDG AND MY AUTOPLT WOULD NOT HOLD THE HDG. I RECYCLED MY AUTOPLT, BUT IT WOULD STILL NOT HOLD THE HDG. WHILE TRYING TO SET MY DIRECTIONAL GYRO TO THE COMPASS I FELL BELOW 2000 FT. AFTER THE CTLR RADIOED THAT I HAD A POSSIBLE DIRECTIONAL GYRO PROB I STARTED TO RELY ON MY COMPASS AND GPS TO NAV. ATC INSTRUCTED ME TO GET LOWER TILL I BROKE OUT OF THE CLOUDS. I THEN WAS INSTRUCTED TO PROCEED TO ZZZ4 ARPT. THE NEXT MORNING I WENT BACK TO ZZZ4 ARPT TO POSSIBLY BRING MY PLANE TO ITS HOME ARPT. UPON CRANKING THE ENG I HAD NO OIL PRESSURE INDICATED AND NO DROP WHEN FEATHERING THE PROP. MY ACFT REMAINS AT ZZZ4. I HAVE ALREADY TOLD MY MECH THAT I'LL WANT ANOTHER DIRECTIONAL GYRO. CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO: THE AIRPLANE HAD MAJOR ENG WORK AND WAS OPERATED FOR 11 HRS UNTIL THE DROP AND LOSS OF OIL PRESSURE INCIDENT. HAD A TECHNICIAN CHK THE ENG OVER AND IT WAS DISCOVERED THE OIL PRESSURE RELIEF VALVE WAS JAMMED OPEN BY BITS OF BRASS SAFETY WIRE. CLEANED EVERYTHING AND THE ENG OPERATED NORMALLY. A NEW DIRECTIONAL GYRO CORRECTED THE INSTRUMENTATION AND AUTOPLT PROB.

## **Synopsis**

A BE35 AT 3500 FT NOTED DROP IN OIL PRESSURE. ADVISED ATC AND ADVISED TO DSND TO 2000 FT. ON DSCNT LOST DIRECTIONAL GYRO AND AUTOPLT. ADVISED TO DSND TO 600 FT AND BROKE OUT OF CLOUDS AND PROCEEDED TO ARPT.

**ACN: 726613**

## **Time / Day**

Date : 200702  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Navaid : ENO.VORTAC  
State Reference : DE  
Altitude.MSL.Single Value : 19000

## **Environment**

Flight Conditions : VMC  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.ARTCC : ZDC.ARTCC  
Operator.Common Carrier : Air Carrier  
Make Model Name : EMB ERJ 145 ER&LR  
Operating Under FAR Part : Part 121  
Navigation In Use.Other : FMS or FMC  
Flight Phase.Cruise : Level  
Route In Use.Arrival.STAR : KORRY3

## **Component : 1**

Aircraft Component : FMS/FMC

## **Person : 1**

Affiliation.Company : Air Carrier  
Function.Flight Crew : Captain  
Function.Oversight : PIC  
ASRS Report : 726613

## **Person : 2**

Affiliation.Company : Air Carrier  
Function.Flight Crew : First Officer

## **Person : 3**

Affiliation.Government : FAA  
Function.Controller : Radar

## **Events**

Anomaly.Aircraft Equipment Problem : Less Severe  
Independent Detector.Other.ControllerA : 3  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.None Taken : Anomaly Accepted

## **Assessments**

Problem Areas : Aircraft

## **Narrative**

THIS IS MY THIRD RPT FOR THIS EXACT EVENT. BTWN ENO AND SKIPY ON THE KORRY 3, ZDC ASKED IF WE WERE USING FMS NAV. WE RESPONDED AFFIRMATIVE AND THEY RPTED THAT WE WERE ABOUT 1 MI W OF COURSE PARALLELING THE COURSE. MAGENTA AND GREEN NEEDLES WERE BOTH CTRED AND LNAV WAS ENGAGED USING THE FMS. I WENT TO THE 'FMS NAV:SENSORS:GPS POS' PAGE AND NOTICED THAT THE AIRPLANE WAS .7 MI W OF THE GPS POS. I WILL KEEP SUBMITTING THIS SAME RPT EVERY TIME THIS HAPPENS UNTIL I GET AN EXPLANATION OF WHY THIS CONTINUES TO OCCUR. THERE IS NO ACTION THAT WE COULD HAVE TAKEN TO PREVENT THIS TYPE OF DEV.

## **Synopsis**

EMB135 CREW RPTS CONCERNS WITH NAV ACCURACY DURING KORRY 3 STAR.

**ACN: 725677**

## **Time / Day**

Date : 200702  
Local Time Of Day : 0601 To 1200

## **Place**

Locale Reference.Airport : EGE.Airport  
State Reference : CO  
Altitude.MSL.Single Value : 12500

## **Environment**

Flight Conditions : VMC  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.Tower : EGE.Tower  
Operator.General Aviation : Personal  
Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer  
Operating Under FAR Part : Part 91  
Navigation In Use.Other : FMS or FMC  
Flight Phase.Descent : Approach  
Route In Use.Approach : Visual

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Captain  
Function.Oversight : PIC  
ASRS Report : 725677

## **Person : 2**

Affiliation.Other : Personal  
Function.Flight Crew : First Officer

## **Events**

Anomaly.Altitude Deviation : Excursion From Assigned Altitude  
Anomaly.Non Adherence : Published Procedure  
Independent Detector.Other.Flight CrewA : 1  
Independent Detector.Other.Flight CrewB : 2  
Resolatory Action.Flight Crew : Became Reoriented  
Resolatory Action.None Taken : Detected After The Fact

## **Assessments**

Problem Areas : Flight Crew Human Performance  
Problem Areas : Weather

## **Narrative**

RNAV GPS D INTO EGE. PNF WAS FAMILIAR WITH APCH, PF WAS NOT. PLANNED APCH (LDA) WAS CHANGED AT THE LAST MINUTE TO THE GPS. PNF MISTAKENLY BRIEFED A DSCNT TO 12000 FT AFTER RLG VOR (SHOULD HAVE STAYED AT 14000 FT). A DOUBLE-CHK WAS MADE AND WAS DETERMINED THAT THE ACFT SHOULD HAVE REMAINED AT 14000 FT UNTIL KIMBL. WE WERE NOW DSNDING OUT OF 12600 FT. WE HAD THE ARPT IN SIGHT, SO WE CALLED IT, WERE CLRED FOR THE VISUAL, CLBED TO 13000 FT AND CONTINUED WITHOUT INCIDENT. WX WAS CAVU.

## **Synopsis**

FLT CREW DESCENDS BELOW PUBLISHED MIN ALT DURING APCH TO EGE.

**ACN: 723957**

## **Time / Day**

Date : 200701  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.ATC Facility : CAK.TRACON  
State Reference : OH  
Altitude.MSL.Single Value : 3000

## **Environment**

Flight Conditions : IMC  
Weather Elements : Ice  
Weather Elements : Snow

## **Aircraft : 1**

Controlling Facilities.TRACON : CAK.TRACON  
Operator.General Aviation : Personal  
Make Model Name : PA-28 Cherokee/Archer II/Dakota/Pillan/Warrior  
Operating Under FAR Part : Part 91  
Flight Phase.Descent : Approach  
Route In Use.Arrival : On Vectors

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Instrument  
Qualification.Pilot : Private  
Experience.Flight Time.Last 90 Days : 15  
Experience.Flight Time.Total : 500  
Experience.Flight Time.Type : 75  
ASRS Report : 723957

## **Person : 2**

Affiliation.Government : FAA  
Function.Controller : Approach

## **Events**

Anomaly.Inflight Encounter : Weather  
Anomaly.Non Adherence : FAR  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.Controller : Issued New Clearance  
Resolatory Action.Flight Crew : Executed Missed Approach  
Resolatory Action.Flight Crew : Landed In Emergency Condition  
Resolatory Action.None Taken : Detected After The Fact

## **Assessments**



Problem Areas : Flight Crew Human Performance

Problem Areas : Weather

## **Narrative**

WE WERE RETURNING FROM ZZZ. WE HAD FLOWN DOWN ON AN IFR FLT PLAN AND HAD NOT ENCOUNTERED ANY ICING DESPITE BEING IN THE CLOUDS. WE DID NOT OBTAIN A FULL WX BRIEFING PRIOR TO DEPARTING FOR OUR HOME ARPT. ON THE RETURN FLT, WE BEGAN TO ACCRETE TRACE ICING ON THE WINGS AND WINDSCREEN. WE WERE NOT ABLE TO DSND ANY LOWER AS WE WERE AT THE MINIMUM ALT IN THE AREA. SHORTLY, THE ICE BEGAN TO ENGULF MORE OF THE WINDSCREEN. WE FLEW THE GPS APCH INTO WADSWORTH, BUT DESPITE BREAKING OUT, THE ICE DID NOT SUBLIMATE FROM THE WINDSCREEN. WE HAD THE DEFROSTER ON HIGH, BUT IT WAS SIMPLY NOT PUTTING OUT SUFFICIENT WARMTH TO CAUSE THE ICE TO MELT. WE WENT MISSED, CONTACTED AKRON, AND RECEIVED VECTORS FOR THE ILS. WE FLEW THE ILS TO MINIMUMS AND LANDED BY PEERING OUT THE SIDE WINDOW AND THE BOTTOM CORNER OF THE FRONT OF THE WINDSCREEN. WE SHOULD HAVE OBTAINED A FULL WX BRIEFING BEFORE LEAVING FOR HOME AND VERIFIED THAT THERE WERE NO RPTS OF ICING IN THE AREA. WE SHOULD NOT HAVE ASSUMED THAT THE WX ON THE WAY DOWN WOULD BE THE SAME ON THE WAY BACK. WE ALSO NEED TO HAVE THE DEFROSTER EXAMINED TO MAKE SURE THAT IT DOES NOT NEED REPAIRS.

## **Synopsis**

PA28 PLT ENCOUNTERS ICING CONDITIONS AND HAS DIFFICULTIES LNDG DUE TO ICE ON THE WINDSCREEN.

**ACN: 723360**

## **Time / Day**

Date : 200701  
Local Time Of Day : 0601 To 1200

## **Place**

Locale Reference.Airport : GON.Airport  
State Reference : CT  
Altitude.MSL.Single Value : 950

## **Environment**

Flight Conditions : IMC  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.Tower : GON.Tower  
Operator.General Aviation : Personal  
Make Model Name : Skylane 182/RG Turbo Skylane/RG  
Operating Under FAR Part : Part 91  
Navigation In Use.Other : GPS  
Flight Phase.Descent : Approach  
Route In Use.Approach : Instrument Non Precision

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Instrument  
Qualification.Pilot : Private  
Experience.Flight Time.Last 90 Days : 25  
Experience.Flight Time.Total : 615  
Experience.Flight Time.Type : 260  
ASRS Report : 723360

## **Person : 2**

Affiliation.Government : FAA  
Function.Controller : Local

## **Events**

Anomaly.Other Anomaly.Other  
Independent Detector.ATC Equipment : MSAW  
Independent Detector.Other.ControllerA : 1  
Resolatory Action.None Taken : Anomaly Accepted

## **Assessments**

Problem Areas : FAA

## **Narrative**

FLYING THE RNAV (GPS) 23 APCH INTO GON. HAD CONTACTED TWR. PASSED FAF AT ABOUT 2100 FT MSL AND BEGAN DSCNT TO INTERMEDIATE STEPDOWN FIX ZEMAP WHICH MUST BE CROSSED AT OR ABOVE 800 FT MSL. ABOUT 1 NM BEFORE ZEMAP DSCNTING THROUGH 900 FT MSL AS I WAS BEGINNING TO ARREST MY DSCNT CTLR STATED: 'LOW ALT ALERT. CHK ALT IMMEDIATELY. ALTIMETER 30.14 INCHES.' MY ALT WAS IN ACCORDANCE WITH THE IAP. MY ALTIMETER WAS SET CORRECTLY. AT THAT MOMENT THE ISSUED LOW ALT ALERT WAS POTENTIALLY HARMFUL BECAUSE IT DIVERTED MY ATTN FROM SMOOTHLY ARRESTING MY DSCNT AND PROPERLY NOTING PASSING OF ZEMAP. IT TENDED TO PUT ME 'BEHIND THE AIRPLANE.' I INFORMED THE CTLR THAT MY ALT WAS CORRECT AND CONTINUED THE APCH. AFTER LNDG, I QUERIED THE CTLR AND HE INFORMED ME THAT THEIR EQUIP HAD BEEN INDICATING MANY LOW ALT ALERTS ON THE RWY 23 APCH AND THAT THEY WERE REQUIRED TO ISSUE THEM TO THE PLT. I AGREED THAT THE CTLR HAD CERTAINLY ACTED PROPERLY. AS I WAS ENTERING MY IFR CLRNC FOR THE NEXT LEG OF MY FLT INTO MY GPS SYS, I HEARD THE TWR ISSUE YET ANOTHER LOW ALT ALERT TO AN INBOUND ACFT ON THE RWY 23 APCH. I BELIEVE THAT THE PARAMETERS PROGRAMMED INTO THE LOW ALT ALERT SYS FOR RWY 23 AT GON SHOULD BE REVIEWED AND FINE-TUNED TO MINIMIZE THE OCCURRENCE OF SPURIOUS ALERTS.

## **Synopsis**

C182 PLT ON RNAV GPS 23 APCH RECEIVED LOW ALT ALERT FROM TWR CAUSING A DISTR WHEN ALTS WERE IN COMPLIANCE WITH PROC.

**ACN: 723050**

## **Time / Day**

Date : 200701

## **Place**

Locale Reference.Airport : SAC.Airport  
State Reference : CA

## **Person : 1**

Qualification.Pilot : CFI  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Experience.Flight Time.Last 90 Days : 50  
Experience.Flight Time.Total : 10000  
ASRS Report : 723050

## **Events**

Anomaly.Other Anomaly.Other  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.None Taken : Anomaly Accepted

## **Assessments**

Problem Areas : Chart Or Publication

## **Situations**

Chart.Airport : SAC.Airport  
Chart.Approach : ILS Or Loc Rwy 2

## **Narrative**

THE SACRAMENTO EXECUTIVE ILS OR LOC RWY 2 APCH PLATE (AMEND 22C) SAYS, UNDER NOTE 1) UNDER THE BRIEFING STRIP 'ADF REQUIRED.' THIS COULD CAUSE A PLT IN AN AIRPLANE WITHOUT AN ADF (OR GPS, WHICH WILL SUBSTITUTE) TO AVOID THIS APCH IN FAVOR OF THE LESS ACCURATE, LESS SAFE, NON-PRECISION APCHS. REQUIRING AN ADF IN THIS TIME OF DECOMMISSIONED NDB APCHS DOESN'T MAKE SENSE. PLTS ARE GETTING RID OF ADF'S OR NOT REPAIRING THEM AS THEY ARE NOT ABLE TO SHOOT NDB APCHS. THERE IS EVEN A TRANSITION RTE PUBLISHED ON THE CHART FROM THE VOR TO THE OUTER MARKER. I TALKED WITH THE PEOPLE RESPONSIBLE FOR CHANGING THE CHART AND WAS TOLD THAT 'THAT'S THE WAY IT IS' WHEN I QUESTIONED THE ADF REQUIRED PHRASE. IF WE MUST HAVE AN ADF REQUIRED ON THE CHART, AT LEAST IT COULD BE CHANGED TO 'ADF, GPS OR RADAR REQUIRED.' THIS IS AN UNSAFE REQUIREMENT WHICH COULD LEAD TO AN ACCIDENT.

## **Synopsis**

PLT CLAIMS UNNECESSARY 'ADF REQUIRED' NOTE ON SAC ILS RWY 2 APCH PLATE.

**ACN: 721833**

## **Time / Day**

Date : 200609  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 1500

## **Environment**

Flight Conditions : VMC  
Light : Daylight

## **Aircraft : 1**

Operator.General Aviation : Personal  
Make Model Name : PA-28 Cherokee/Archer II/Dakota/Pillan/Warrior  
Operating Under FAR Part : Part 91  
Navigation In Use.Other : GPS  
Flight Phase.Cruise : Level

## **Aircraft : 2**

Operator.Other : Government  
Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer  
Flight Phase.Cruise : Level

## **Component : 1**

Aircraft Component : GPS & Other Satellite Navigation

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Private  
Qualification.Technician : Airframe  
Qualification.Technician : Powerplant  
Experience.Flight Time.Last 90 Days : 40  
Experience.Flight Time.Total : 110  
Experience.Flight Time.Type : 60  
ASRS Report : 721833

## **Person : 2**

Affiliation.Government.Other  
Function.Flight Crew : Single Pilot

## **Events**

Anomaly.Airspace Violation : Entry  
Anomaly.Non Adherence : FAR

Anomaly.Non Adherence : Published Procedure  
Independent Detector.Other.Flight CrewA : 1  
Independent Detector.Other.Flight CrewB : 2  
Resolatory Action.Flight Crew : Exited Penetrated Airspace  
Consequence.FAA : Reviewed Incident With Flight Crew

## **Assessments**

Problem Areas : Airport  
Problem Areas : Flight Crew Human Performance  
Problem Areas : Navigational Facility

## **Narrative**

I AM AN A&P AND I MAINTAIN THE PA28 ACFT FOR THE OPPORTUNITY TO FLY AND OBTAIN MY PVT LICENSE. THE OWNER OF THE ACFT PURCHASED A GARMIN 195 HANDHELD GPS. I INSTALLED THE UNIT IN THE ACFT AND HAVING NEVER FLOWN WITH ONE, I DECIDED TO DO A TRIP TO SEE HOW IT OPERATED. I DEPARTED AND FLEW TO ZZZ1. I HAD LUNCH THERE WITH MY INSTRUCTOR. I THEN DECIDED TO GO TO ZZZ2 TO REFUEL AS THEY WERE SELLING THEIR FUEL 75C PER GAL CHEAPER THAN AT ZZZ. THIS WAS MY FIRST TIME INTO ZZZ2. THE GPS WAS WORKING SUPER AS IT TOOK ME RIGHT TO ZZZ1 AND THEN TO ZZZ2. AT ZZZ2, I INPUT ZZZ INTO THE GPS TO TAKE ME HOME. I DEPARTED AND ONCE I LEFT THE PATTERN, I TURNED TO THE FLT PATH THE GPS WAS INDICATING TO ZZZ. AS I WAS FOLLOWING THE GPS FLT PATH I NOTICED NUMEROUS HOUSES, TOO MUCH FOR ZZZ. I DECIDED SOMETHING WAS WRONG AND IMMEDIATELY MADE A 180 DEGS BACK TO ZZZ2. WHEN I SAW ZZZ2 I TUNED IN VOR AND HEADED TOWARDS ZZZ USING THE VOR AND FORGETTING ABOUT THE GPS. ABOUT 10 MI FROM ZZZ THE BORDER PATROL CAME ALONG SIDE ME AND FOLLOWED ME TO ZZZ. ON THE GND AT ZZZ I COULD VIEW THE POS OF MY PLANE ON THE GPS BUT IT WAS SHOWING ZZZ TO BE TO THE NE. I SHOWED THIS TO THE PLT OF THE BORDER PATROL AND HE COULDN'T UNDERSTAND WHY THERE WERE 2 ZZZ'S. LATER I CALLED GARMIN AND THEY STATED THAT SOMEONE MUST HAVE HAD THE UNIT AT A DIFFERENT LOCATION (LIKE HOME) AND INPUT ZZZ AS A WAYPOINT. THIS WAS MY FIRST DAY FLYING AS A PVT PLT. YOU DON'T KNOW HOW PROUD I AM THAT I ACHIEVED THIS. I FLY OUT OF ZZZ AND AM FAMILIAR WITH THE ADIZ AS WE ARE LESS THAN 3 MI AWAY FROM IT. I WAS JUST SO ENAMORED WITH THE GPS THAT I DIDN'T PAY ATTN TO THE COMPASS HDG IT WAS TAKING ME. I AM EMBARRASSED. THIS IS A LESSON LEARNED FOR LIFE.

## **Synopsis**

PVT PLT ENTERS DC ADIZ ON FIRST LICENSED FLT.

**ACN: 721263**

## **Time / Day**

Date : 200612  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Airport : 8A1.Airport  
State Reference : AL  
Altitude.MSL.Single Value : 1050

## **Environment**

Flight Conditions : VMC  
Light : Night

## **Aircraft : 1**

Operator.General Aviation : Personal  
Make Model Name : Cessna Aircraft Undifferentiated or Other Model  
Operating Under FAR Part : Part 91  
Navigation In Use.Other : GPS  
Flight Phase.Descent : Approach  
Route In Use.Approach : Visual

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : ATP  
Qualification.Pilot : CFI  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Experience.Flight Time.Last 90 Days : 40  
Experience.Flight Time.Total : 3400  
Experience.Flight Time.Type : 160  
ASRS Report : 721263

## **Events**

Anomaly.Non Adherence : Published Procedure  
Independent Detector.Other.Flight CrewA : 1  
Consequence.Other : Emotional Trauma

## **Assessments**

Problem Areas : Airport  
Problem Areas : Chart Or Publication  
Problem Areas : Flight Crew Human Performance

## **Narrative**

I WAS USING THE GPS-A APCH TO GUNTERSVILLE, AL (8A1) AS A VISUAL REF TO LOCATE AND LAND AT GUNTERSVILLE ARPT, AL (8A1) IN NIGHT VISUAL

CONDITIONS. THE ARPT IS LOCATED ALONG THE TENNESSEE RIVER'S EDGE. THE APCH CHART SHOWS THE APCH LINED UP OVER THE RIVER. I HAD THE ARPT IN SIGHT AND WAS LINED UP WITH THE RWY 21 OVER A DARK AREA OF THE RIVER. THE RWY FIELD LENGTH IS 3368 FT AND 613 FT ELEVATION. THE MDA AT THE MISSED APCH POINT IS 1540 FT, 1/2 MI FROM THE RWY THRESHOLD. I WAS IN VISUAL CONDITIONS AND DSNDED BELOW THE MDA BEFORE REACHING THE MISSED APCH. THIS WAS A NEARLY FATAL MISTAKE. DSNDDING THROUGH ABOUT 1050 FT MSL, I NOTICED A DIM SILVERY VERT SILHOUETTE ABOUT 150 FT TO MY R AT THE SAME ALT. I IMMEDIATELY INITIATED AN EMER CLB WITH FULL PWR AND BEST ANGLE OF CLB. AFTER CLBING OVER THE OBSTACLE, I CONTINUED THE APCH AND LANDED AT GUNTERSVILLE. THE SILVERY VERT SILHOUETTE WAS 1 OF 2 UNLIT TWRS ON EITHER SIDE OF THE TENNESSEE RIVER SUPPORTING HIGH TENSION ELECTRICAL LINES ACROSS THE RIVER. THE TWRS ARE PUBLISHED AT 950 FT MSL. THE TWRS ARE NOT ILLUMINATED. I SUSPECT THE TWR I SAW WAS OUTLINED BY MOONLIGHT, THE STARS, AND NEARBY CITY LIGHTS. I AM AN INSTRUCTOR AND I TEACH NEVER TO GO BELOW MINIMUMS. SEVERAL FACTORS MAY HAVE PLAYED A ROLE IN THIS CHAIN OF EVENTS: FATIGUE FROM A LONG FLT, THE PLANNED DEP WAS DELAYED TO 3 HRS DUE TO WX. THE ORIGINAL PLAN WAS TO COMPLETE THE FLT WELL BEFORE DARK. INSTEAD WE LANDED WELL AFTER DARK. THE GPS RECEIVER HAD JUST COME OUT OF THE SHOP, AND NO LONGER HAD THE RTE TRACKING DISPLAY. I FOUND THIS DISTRACTING, ADDING TO THE WORKLOAD. CONTRIBUTING TO THE PROB WAS THE FACT THAT THE GUNTERSVILLE, AL, APCH PLATE HAS 2 FIXES WITH APPARENTLY THE SAME NAME 'DOMOW' -- ONE 2.1 MI BEFORE THE OTHER AND EACH WITH A DIFFERENT MINIMUM ALT. THE INCIDENT COULD HAVE BEEN PREVENTED BY 1 FACTOR ALONE -- NOT GOING BELOW THE MDA. CONTRIBUTING FACTORS WERE: 1) LACK OF STROBE LIGHTS ON THE 2 TWRS OFF THE APCH END OF THE RWY ON EITHER SIDE OF THE RIVER. 2) GPS RECEIVER NOT FULLY TESTED AND FUNCTIONING AFTER REPAIRS. 3) CONFUSION OVER APPARENTLY HAVING THE SAME NAME FOR 2 SEPARATE WAYPOINTS ON THE APCH CHART. 4) LATE START, CAUSING UNPLANNED AFTER DARK ARR. 5) NO VISUAL GS LIGHTS. CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO: THE RPTR STATES THAT HE HAS OPERATED OUT OF THIS ARPT PREVIOUSLY AND WAS AWARE OF THE PWR LINES. THEIR EXISTENCE HAD SLIPPED HIS MIND UNTIL HE SAW THEM GLINT IN THE STAR LIGHT, AND THIS MEMORY PRODUCED HIS QUICK REACTION. HE BELIEVES THESE TWRS SHOULD BE LIGHTED.

## **Synopsis**

PLT HAS CLOSE ENCOUNTER WITH PWR LINES DURING NIGHT VISUAL APCH TO 8A1.



**ACN: 720618**

## **Time / Day**

Date : 200612  
Local Time Of Day : 1801 To 2400

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 27000

## **Environment**

Flight Conditions : VMC  
Light : Night

## **Aircraft : 1**

Controlling Facilities.ARTCC : ZZZ.ARTCC  
Operator.General Aviation : Personal  
Make Model Name : TBM 700  
Operating Under FAR Part : Part 91

## **Aircraft : 2**

Flight Phase.Descent : Vacating Altitude

## **Component : 1**

Aircraft Component : GPS & Other Satellite Navigation

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : CFI  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Experience.Flight Time.Last 90 Days : 200  
Experience.Flight Time.Total : 2100  
Experience.Flight Time.Type : 15  
ASRS Report : 720618

## **Person : 2**

Affiliation.Government : FAA  
Function.Controller : Radar

## **Events**

Anomaly.Altitude Deviation : Overshoot  
Anomaly.Non Adherence : Clearance  
Anomaly.Other Spatial Deviation  
Independent Detector.Other.ControllerA : 2  
Resolatory Action.Controller : Issued Advisory

## Assessments

Problem Areas : Aircraft

Problem Areas : Flight Crew Human Performance

## Narrative

WHILE FLYING AT FL270 I WAS GIVEN AN AMENDED FLT CLRNC. THE AMENDED CLRNC WAS DIRECT ABC AND TO DSND TO FL250. I LOADED THE FLT PLAN INTO THE GARMIN 530 AND ACTIVATED IT. THE PLANE MADE A TURN TO INTERCEPT THE DESIRED TRACK LINE. I THEN WENT TO WORK ON THE ALT. I TRIED TO ENTER THE VERT SPD SEVERAL TIMES TO NO AVAIL. I THEN TRIED TO MAKE THE ACFT DSND USING THE AUTOPLT VERT TRIM CTL ROCKER SWITCH. IN THE DARKNESS OF THE COCKPIT AND NOT BEING FAMILIAR WITH THE TRIM I MISTAKENLY TRIMMED THE PLANE UP. THE CTLR THEN INQUIRED ABOUT MY HDG. I RPTD I WAS DIRECT ABC AS THE GPS AND AUTOPLT INDICATED THE ACFT HAD TURNED TO INTERCEPT THE DESIRED TRACK LINE I HAD INPUTTED. I THEN NOTICED THE ACFT HAD NOT DSNDDED BUT HAD CLBED 200 FT. THE CTLR THEN GAVE ME A RADAR VECTOR TO INTERCEPT ABC AND ALSO REMINDED ME TO DSND TO FL250. I THEN DISCONNECTED THE AUTOPLT AND TURNED ON COURSE AND DSNDDED. SOME CONTRIBUTING FACTORS WERE MY RELATIVELY FEW HRS IN THE ACFT I WAS FLYING, THE LOW LIGHTING ON THE AUTOPLT PANEL, AND MY NOT BEING AS FAMILIAR WITH THE AUTOPLT AS I THOUGHT. I SPENT TOO MUCH TIME TRYING TO GET THE AUTOPLT TO DSND. I SHOULD HAVE BEEN QUICKER TO HAND-FLY THE ACFT, WHEN I WAS HAVING PROBS WITH MY UNDERSTANDING OF HOW TO OPERATE THE AUTOPLT. I NOW HAVE MASTERED THE VERT MODE ON THE AUTOPLT. ALSO, FROM THE TIME I INPUTTED THE NEW FLT PLAN INTO THE GPS AND ACTIVATED IT A LOT OF DISTANCE HAD BEEN COVERED IN THIS HIGH PERFORMANCE ACFT. NEXT TIME I WILL ACTIVATE DIRECT TO THE FIRST FIX AND THEN WHILE I HAVE MORE TIME I WILL INPUT THE ENTIRE FLT PLAN.

## Synopsis

A LOW TIME SOCATA TBM 700 PLT RPTS A TRACK AND ALTDEV AS HE ATTEMPTED TO COMPLY WITH AN ATC CLRNC. SYS IN USE WAS A GARMIN 530.

**ACN: 719576**

## **Time / Day**

Date : 200612  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.ATC Facility : ZJX.ARTCC  
State Reference : FL  
Altitude.MSL.Single Value : 26000

## **Environment**

Flight Conditions : IMC  
Weather Elements : Turbulence  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.ARTCC : ZJX.ARTCC  
Operator.General Aviation : Personal  
Make Model Name : PA-42 Cheyenne IIA  
Operating Under FAR Part : Part 91  
Navigation In Use.Other : GPS  
Flight Phase.Cruise : Level  
Route In Use.Enroute.Airway : J79.Airway

## **Aircraft : 2**

## **Component : 1**

Aircraft Component : Autopilot

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Qualification.Pilot : Private  
Experience.Flight Time.Last 90 Days : 25  
Experience.Flight Time.Total : 1950  
Experience.Flight Time.Type : 188  
ASRS Report : 719576

## **Person : 2**

Affiliation.Government : Foreign  
Function.Controller : Radar

## **Events**

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Altitude Deviation : Excursion From Assigned Altitude

Anomaly.Non Adherence : Clearance  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.Flight Crew : Returned To Assigned Altitude

## **Assessments**

Problem Areas : Aircraft  
Problem Areas : Flight Crew Human Performance

## **Narrative**

I WAS FLYING S AT FL260 (-19C) IN IMC (HIGH OVCST CLOUDS) WITH INTERMITTENT 'LIGHT CHOP' (TURB) ON J79 BTWN MILIE INTXN AND OMN. ATC HAD JUST GIVEN ME ANOTHER AMENDMENT TO MY ROUTING WHICH WAS TO FLY DIRECT TO MLB AND THEN THE BLUFI 1 (STAR) TO OPF. I HAD ENTERED MLB IN MY GPS AND PUNCHED 'DIRECT' AND ADJUSTED THE HSI COURSE NEEDLE TO THE NEW COURSE FOR THE AUTOPLT (AUTOPLT WAS IN THE NAV MODE WITH ALT HOLD ENGAGED) TO FLY TO MLB. AFTER OBSERVING THE AIRPLANE TURNING TO THE NEW COURSE, I REACHED BEHIND THE COPLT SEAT TO PLACE THE H9 CHART BACK INTO THE CHART RACK (I ALREADY HAD H8 AND L19 OUT) AND PICKED UP THE FLORIDA TERMINAL PROCS FROM BTWN THE SEATS. I LOOKED UP THE BLUFI 1 STAR TO REVIEW IT AND ENSURE IT WAS PROPERLY ENTERED IN THE GPS. WHEN I LOOKED UP AT THE PANEL THE AIRPLANE WAS IN A DSNDING TURN TO THE R AND WAS ALREADY THROUGH 25700 FT. I IMMEDIATELY TOOK THE CTL WHEEL, LEVELED THE WINGS, ARRESTED THE DSCNT, AND BEGAN A CLBING TURN BACK ON COURSE. AS I WAS LEVELING AT FL260 AND JUST ABOUT BACK ON COURSE (AIRPLANE HAD DRIFTED ABOUT 30 DEGS TO THE R), ATC ASKED IF I WAS EXPERIENCING ANY DIFFICULTY. I EXPLAINED THE AUTOPLT HAD DISENGAGED WHILE I WAS REVIEWING THE BLUFI 1 ARR ON THE JUST AMENDED ROUTING. WHEN I GOT BACK ON COURSE AND LEVEL AT FL260 I RE-ENGAGED THE AUTOPLT AND IT FUNCTIONED PROPERLY THROUGHOUT THE REST OF THE FLT.

## **Synopsis**

PIPER PA42 PLT HAS AN ALTDEV WHILE IN CRUISE FLT.

**ACN: 719107**

## **Time / Day**

Date : 200606  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Airport : BVY.Airport  
State Reference : MA  
Altitude.MSL.Single Value : 800

## **Environment**

Flight Conditions : IMC  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.TRACON : A90.TRACON  
Controlling Facilities.Tower : BVY.Tower  
Operator.General Aviation : Personal  
Make Model Name : Skyhawk 172/Cutlass 172  
Operating Under FAR Part : Part 91  
Navigation In Use.ILS.Localizer Only : 5  
Navigation In Use.Other : GPS  
Flight Phase.Descent : Approach  
Route In Use.Approach : Instrument Precision

## **Component : 1**

Aircraft Component : ILS/VOR

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Instrument  
Qualification.Pilot : Private  
Experience.Flight Time.Last 90 Days : 10  
Experience.Flight Time.Total : 360  
Experience.Flight Time.Type : 250  
ASRS Report : 719107

## **Person : 2**

Affiliation.Other : Contracted Service  
Function.Controller : Local

## **Events**

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Non Adherence : Clearance  
Anomaly.Non Adherence : Published Procedure  
Anomaly.Other Spatial Deviation

Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.Flight Crew : Diverted To Another Airport  
Resolatory Action.Flight Crew : Executed Missed Approach  
Consequence.FAA : Reviewed Incident With Flight Crew

## **Assessments**

Problem Areas : Aircraft  
Problem Areas : Flight Crew Human Performance

## **Narrative**

DURING THE FLT, I HAD BEEN USING GPS NAV ON THE #1 OBS, AND THE OBS HAS A SELECTOR SWITCH TO DETERMINE THE NAV SOURCE (NAV RADIO OR GPS). WHEN PREPARING FOR THE APCH (LOC 16), I FAILED TO SWITCH THE SELECTOR FROM GPS BACK TO NAV. BECAUSE OF THE CURRENT GPS SETTING, THE NEEDLE APPEARED NORMAL, BUT IT SEEMED TO TAKE A LONG TIME TO ESTABLISH ON THE LOC. AFTER BEING MOSTLY ESTABLISHED, I BEGAN THE DSCNT TO THE FINAL SEGMENT ALT. SOON, BVY TWR CALLED ME TO ADVISE ME THAT I WAS WELL R OF THE LOC, AND TO ASK MY INTENTIONS. AT THAT TIME, I EXECUTED A MISSED APCH, REALIZED THE ERROR, AND CORRECTED THE SELECTOR SWITCH SETTING. UNFORTUNATELY, DURING MISS EXECUTION, THE ARPT CEILING LOWERED TO A POINT WHERE THE APCH WAS NOT PRACTICAL. PROCEEDED TO A NEARBY ARPT (LWN), BUT HAD TO SHOOT THE ILS 5 TWICE TO GET IN.

## **Synopsis**

C172 PLT HAS A TRACK HDG DEV DURING APCH, EXECUTES MISSED APCH AND DIVERTS FOR LNDG.

**ACN: 718859**

## **Time / Day**

Date : 200611

Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Airport : BEC.Airport

State Reference : KS

Altitude.AGL.Single Value : 0

## **Environment**

### **Aircraft : 1**

Controlling Facilities.Tower : BEC.Tower

Operator.General Aviation : Corporate

Make Model Name : Dassault-Breguet Undifferentiated or Other Model

Operating Under FAR Part : Part 91

Navigation In Use.Other : FMS or FMC

Navigation In Use.Other : GPS

Flight Phase.Landing : Roll

### **Person : 1**

Affiliation.Company : Corporate

Function.Flight Crew : Captain

Function.Oversight : PIC

Qualification.Pilot : ATP

Qualification.Pilot : Commercial

Qualification.Pilot : Instrument

Qualification.Pilot : Multi Engine

Experience.Flight Time.Last 90 Days : 120

Experience.Flight Time.Total : 16150

Experience.Flight Time.Type : 3410

ASRS Report : 718859

### **Person : 2**

Affiliation.Company : Corporate

Function.Flight Crew : First Officer

### **Person : 3**

Affiliation.Government : FAA

Function.Controller : Local

## **Events**

Anomaly.Ground Encounters.Other

Anomaly.Incursion : Landing Without Clearance

Anomaly.Incursion : Runway

Anomaly.Non Adherence : FAR

Independent Detector.Other.ControllerA : 3  
Resolatory Action.None Taken : Detected After The Fact

## Assessments

Problem Areas : Airport  
Problem Areas : Airspace Structure  
Problem Areas : Flight Crew Human Performance

## Narrative

WE WERE INBOUND FROM THE NE, TO LAND AT AAO. THE ACTIVE RWY WAS RWY 36. WITH A CEILING OF 2200 FT AGL, 7 MI VISIBILITY, AND WINDS FROM THE N OF 20 KTS, WE BRIEFED FOR THE RNAV GPS RWY 36 APCH, WITH THE POSSIBILITY OF A VISUAL APCH. WE WERE CLRED TO DSND TO 3000 FT, AND TO PROCEED DIRECTLY TO WUMPA INTXN WHICH IS THE INITIAL FIX FOR THE APCH E OF THE FINAL COURSE AND SE OF THE ARPT. BEFORE REACHING WUMPA, WICHITA APCH TURNED US W FOR A VECTOR TO INTERCEPT THE FINAL APCH COURSE INSIDE OF CATCH INTXN. PROCEEDING W ON A R BASE LEG AT 3000 FT MSL, WE WERE IN GOOD VMC AND BEGAN LOOKING FOR THE ARPT. I SPOTTED WHAT I BELIEVED TO BE THE AAO ARPT AT 2 O'CLOCK POS, AND SHORTLY THEREAFTER THE SIC PLT WHO WAS FLYING, CONFIRMED HE HAD VISUAL CONTACT WITH THE ARPT ALSO. I RPTD THE ARPT IN SIGHT TO WICHITA AND THE CTLR CLRED US FOR THE VISUAL APCH. SHORTLY THEREAFTER, I CANCELED THE IFR FLT PLAN AND SWITCHED TO UNICOM. WHAT I THOUGHT WAS AAO ARPT WAS ACTUALLY BEECH FACTORY (BEC) ARPT, ONLY 3 MI S OF AAO. IT IS SLIGHTLY E OF THE GPS APCH CTRLINE TO AAO, AND ALSO HAS 1 RWY OF THE SAME ORIENTATION -- RWY 36/18. I HAD SET THE AAO ILS DME ON THE #1 VOR FOR REF, BOTH FMS'S WERE SET UP FOR THE GPS APCH TO RWY 36 AT AAO, AND 'MAP MODE' WAS IN USE. WE WERE USING ALL OF THESE AS REFS UNTIL SHORTLY BEFORE TURNING FINAL, THEN NAVED VISUALLY FOR LNDG TO WHAT WE THOUGHT WAS AAO, BUT WAS ACTUALLY BEECH FACTORY ARPT (BEC). NOT REALIZING THIS, WE LANDED AT BEC. THE TWR CALLED US ON UNICOM, HAD US CHANGE TO THEIR FREQ, AND THEN CLRED US FOR TKOF TO AAO. THERE WAS NO MENTION OF ANY TFC CONFLICTS, NOR DID WE OBSERVE ANY TFC IN THE PATTERN OR ON THE GND AT BEC. THIS COULD HAVE BEEN AVOIDED BY: 1) CONTINUING TO REF ELECTRONIC NAV TO NEAR TOUCHDOWN AFTER BEING CLRED TO THE VISUAL. 2) MORE CAREFUL SCRUTINY OF AREA ARPTS WHEN CONDUCTING THE APCH BRIEFING. 3) REMAINING WITH ATC ON THE IFR FLT PLAN UNTIL LNDG. 4) FOLLOWING THE APCH COMPLETELY INSTEAD OF REQUESTING A VISUAL APCH. 5) A CAUTIONARY WORD FROM WICHITA APCH WHEN CLRING AN ACFT FOR A VISUAL APCH TO ANY OF THE SEVERAL ARPTS IN THIS AREA. THIS SHOULD BE A STANDARD OPERATING PROC FOR ATC. HOW IRONIC THAT THE LAST 2 FIXES ON THIS APCH ARE CATCH AND YOKJU. CATCH YOU.

## Synopsis

FLT CREW GOES VISUAL PREMATURELY ON APCH TO UNFAMILIAR ARPT. LAND AT BEC VICE AAO.



**ACN: 718558**

## **Time / Day**

Date : 200611  
Local Time Of Day : 0601 To 1200

## **Place**

Locale Reference.Airport : VNY.Airport  
State Reference : CA  
Altitude.AGL.Single Value : 2800

## **Environment**

Flight Conditions : VMC  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.TRACON : SCT.TRACON  
Operator.General Aviation : Personal  
Make Model Name : King Air C90 E90  
Operating Under FAR Part : Part 91  
Navigation In Use.Other : GPS  
Flight Phase.Climbout : Takeoff  
Route In Use.Departure.SID : CONOGA

## **Component : 1**

Aircraft Component : Compass (HSI/ETC)

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Qualification.Pilot : Private  
Experience.Flight Time.Last 90 Days : 40  
Experience.Flight Time.Total : 1350  
Experience.Flight Time.Type : 450  
ASRS Report : 718558

## **Person : 2**

Affiliation.Government : FAA  
Function.Controller : Departure

## **Events**

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Altitude Deviation : Overshoot  
Anomaly.Non Adherence : Clearance  
Anomaly.Non Adherence : Published Procedure  
Anomaly.Other Spatial Deviation

Independent Detector.Other.ControllerA : 2  
Resolatory Action.Aircraft : Equipment Problem Dissipated  
Resolatory Action.Flight Crew : Overcame Equipment Problem  
Resolatory Action.Flight Crew : Returned To Intended or Assigned Course  
Consequence.FAA : Reviewed Incident With Flight Crew

## **Assessments**

Problem Areas : Aircraft  
Problem Areas : Flight Crew Human Performance

## **Narrative**

I WAS CLRED TO DEPART VNY WITH A STANDARD SID CANOGA 8 DEP. PRIOR I HAD JUST FUELED AND SOMEHOW UNSLAVED AND 'SQUED' MY DG. I SET MY GPS TO THE FIRST FIX ON THE DEP. I WAS CLRED FOR TKOF. I STARTED TO TRACK MY COURSE WITH REF TO MY GPS. WHEN I REACHED THE 2.2 DME MARK ON THE DEP I TURNED TO WHAT I BELIEVED TO BE A HDG OF 210 DEGS. I CONTACTED SOCAL APCH AND SAW I HAD A LARGE ERROR IN MY COURSE ON MY GPS AND MY HDG ON MY DIRECTIONAL GYRO, AS I WAS FIGURING OUT WHY I BECAME DISTR AND CLBED THROUGH MY ALT OF 1700 FT. THE CTRLR ADVISED THAT I WAS OFF MY ASSIGNED HDG. I DISCUSSED THE DIRECTIONAL GYRO WAS UNSLAVED AND OFF. I SLAVED THE DIRECTIONAL GYRO AND IT STARTED BACK TO THE CORRECT HDG. BY THIS TIME I OVERSHOT MY HDG BY ABOUT 70 DEGS. I STARTED TO CORRECT AND WAS THEN TOLD BY ATC I WAS CLRED TO CONTINUE A CLB AND DIRECT TO GMN, MY NEXT FIX. THE PROB WAS ALL CAUSED BY NOT SIMPLY CHKING MY DIRECTIONAL GYRO AS I LINED UP ON THE CTRLINE OF THE RWY. I WOULD HAVE SEEN THE ERROR ON THE GND AND CORRECTED WITH NO PROB. BECAUSE I DID NOT I BECAME OFF HDG AND ALT IN ONE ACTION.

## **Synopsis**

BEECH KINGAIR 90 PLT HAS A TRACK AND HDG AND ALTDEV DURING CANOGA 8 DEP FROM VNY.

**ACN: 717723**

## **Time / Day**

Date : 200611  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.ATC Facility : ZOA.ARTCC  
State Reference : CA

## **Environment**

Flight Conditions : VMC  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.ARTCC : ZOA.ARTCC  
Operator.General Aviation : Personal  
Make Model Name : Sail Plane  
Operating Under FAR Part : Part 91  
Navigation In Use.Other : GPS  
Flight Phase.Climbout : Vacating Altitude

## **Component : 1**

Aircraft Component : Altimeter

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Private  
Experience.Flight Time.Last 90 Days : 37  
Experience.Flight Time.Total : 712  
Experience.Flight Time.Type : 130  
ASRS Report : 717723

## **Events**

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Non Adherence : Clearance  
Anomaly.Other Spatial Deviation  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.Aircraft : Equipment Problem Dissipated  
Resolatory Action.Flight Crew : Exited Penetrated Airspace  
Resolatory Action.Flight Crew : Overcame Equipment Problem

## **Assessments**

Problem Areas : Aircraft  
Problem Areas : Flight Crew Human Performance

## **Narrative**

TODAY WAS A GOOD SAILPLANE FLYING DAY WITH HIGH ALT LENTICULAR CLOUDS OVER THE MINDEN TAHOE AIRFIELD IN NEVADA. I TOOK OFF AND REQUESTED THAT THE FBO TELEPHONE RENO CTR AND REQUEST THAT A WAVE WINDOW BE OPENED ABOVE 17999 FT. PERMISSION WAS GRANTED UP TO A CEILING OF 27000 FT IN THE 'W WAVE WINDOW.' AT 24500 FT MY ALTIMETER CEASED TO READ ANY FURTHER INCREASE IN ALT. I REASONED THAT I HAD REACHED THE MAX HT OF THE ASCENDING AIR MASS. I DID NOT DETECT THE MALFUNCTION FOR SOME TIME, UNTIL I CHKED A BACKUP ALTIMETER, AND DISCOVERED I HAD INADVERTENTLY CLBED TO 30050 FT. I IMMEDIATELY INFORMED THE FBO ON 123.30. THE FBO HAS TELEPHONE CONTACT WITH RENO CTR. I THEN BEGAN A CTLED SPOILER DSCNT TO BELOW 27000 FT. I DO NOT KNOW WHAT CAUSED THE PRIMARY ALTIMETER TO CEASE WORKING. IT BEGAN TO WORK AGAIN AS I DSNDED BELOW 23000 FT. MY GPS BASED CAMBRIDGE 302 FLT COMPUTER READ THE CORRECT ALT, AS DID THE BECKER XPONDER, BUT UNTIL I SUSPECTED THAT THE PRIMARY ALTIMETER HAD 'FROZEN,' I HAD THESE INSTS ON OTHER SETTINGS THAT DID NOT DISPLAY ALT. WHAT CAN BE DONE TO PREVENT A RECURRENCE? HAVE AT LEAST 2 ALTIMETERS VISIBLE AT ALL TIMES, AND PERIODICALLY CHK THE XPONDER FOR ALT, AS BACKUP.

### **Synopsis**

GLIDER PLT EXCEEDS 'WAVE WINDOW' GRANTED BY ATC.

**ACN: 717518**

## **Time / Day**

Date : 200611  
Local Time Of Day : 1801 To 2400

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Bound Lower : 2400  
Altitude.MSL.Bound Upper : 2800

## **Environment**

Flight Conditions : Mixed  
Light : Night

## **Aircraft : 1**

Controlling Facilities.TRACON : ZZZ.TRACON  
Operator.General Aviation : Instructional  
Make Model Name : Skyhawk 172/Cutlass 172  
Operating Under FAR Part : Part 91  
Flight Phase.Descent : Approach

## **Person : 1**

Affiliation.Other : Instructional  
Function.Instruction : Instructor  
Qualification.Pilot : CFI  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Experience.Flight Time.Last 90 Days : 60  
Experience.Flight Time.Total : 1100  
Experience.Flight Time.Type : 1000  
ASRS Report : 717518

## **Person : 2**

Affiliation.Other : Instructional  
Function.Instruction : Trainee

## **Person : 3**

Affiliation.Government : FAA  
Function.Controller : Approach

## **Events**

Anomaly.Inflight Encounter : VFR In IMC  
Anomaly.Non Adherence : FAR  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.Flight Crew : Exited Adverse Environment

## Assessments

Problem Areas : Weather

## Narrative

I AM A CFII AND WAS ON A TRAINING FLT WITH AN INST STUDENT LAST NIGHT. WE DEPARTED ZZZ1 AT APPROX XA30 PM LCL ON AN ADIZ FLT PLAN IN VFR CONDITIONS. MY STUDENT HAD ALREADY RECEIVED A WX BRIEFING AND FILED THE FLT PLAN, AS HE USUALLY DOES, WHEN I ARRIVED AT THE AIRPLANE. THE PLAN WAS TO FLY THE ILS INTO ZZZ, LOCATED 17 MI NW, THEN RETURN TO ZZZ1. I THOUGHT ABOUT FILING AN IFR FLT PLAN, BUT I WANTED MORE FLEXIBILITY TO LET MY STUDENT, WHO RECENTLY BEGAN INST TRAINING, MAKE SOME MISTAKES SINCE THIS WOULD BE HIS FIRST TIME FLYING THE FULL ILS APCH. I HAVE FLOWN THIS APCH MANY TIMES AND AM VERY FAMILIAR WITH THE LCL AREA. THE AWOS AT ZZZ1 AT DEP RPTED WINDS 120 DEGS/3 KTS, VISIBILITY MORE THAN 10 MI, FEW CLOUDS AT 3800 FT, TEMP 11, DEW POINT 9. THE AREA FORECAST WAS FOR SCATTERED CLOUDS AT 3500 FT. WE WERE GOING TO BE FLYING INTO HIGHER THAN 3000 FT MSL (OR 2200-2700 FT AGL, GIVEN THE AVERAGE TERRAIN ELEVATIONS IN THE AREA). AFTER DEPARTING ZZZ1, CLBING TO 3000 FT AND CHKING IN WITH APCH, WE LISTENED TO THE AWOS AT ZZZ. THE WINDS WERE CALM WITH A CEILING OF 3200 FT OVCST AND TEMP/DEW POINT AT 13/10. WE THEN CLRED THE ADIZ TO THE N AND WERE LET GO BY APCH TO SQUAWK VFR AND CONTACT CTAF AT ZZZ. ABOUT 5 MI S OF THE IAP FOR THE ILS AT ZZZ I ASKED THE STUDENT TO DSND TO 2800 FT, THE ALT FOR THAT TRANSITIONAL SEGMENT OF THE ILS APCH. I LOOKED AHEAD AND COULD SEE THE TOWN AND THE ZZZ2 BEACON CLRLY. HOWEVER, WHEN I CHKED THE AWOS AT ZZZ3 IT RPTED A CEILING OF 1800 FT BROKEN. I KNEW THEN SOMETHING WAS NOT RIGHT, SO I RECHKED THE AWOS AT ZZZ AND IT WAS STILL RPTING 3200 FT OVCST. I INSTRUCTED THE STUDENT TO LEAD HIS TURN AT THE VOR TO JOIN THE 295 DEG RADIAL FOR THE TRANSITION. AT THAT MOMENT, THE WINGTIP LIGHTS BEGAN TO SHINE INTO VISIBLE MOISTURE. I SENSED WE WERE ON THE EDGE OF A CLOUD LAYER, BUT I STILL HAD CLR VISUAL CONTACT WITH THE CITY OF AND THE LANDMARK WHICH IS A VERY BRIGHTLY LIT INDUSTRIAL COMPLEX LOCATED NEAR ZZZZZ INTXN, THE POINT WHERE WE'D JOIN THE LOC INBOUND. I WAS A BIT UNEASY ABOUT THE CLOUDS BUT FELT THAT IF WE REMAINED AT 2800 FT WE WOULD PASS CLR OF WHATEVER WAS OUT THERE. THEN, ABOUT 5 MI FROM ZZZZZ, WE ENTERED THE BASE OF A CLOUD. I HAD NO FORWARD AND MINIMAL LATERAL VISIBILITY BUT I STILL HAD GND CONTACT. AT THAT POINT I FELT THE MOST IMPORTANT THING WAS TO REMAIN CALM AND KEEP MY STUDENT FOCUSED ON FLYING THE APCH. I TOLD THE STUDENT THAT WE HAD SKIMMED A CLOUD AND ASKED HIM TO DSND TO 2500 FT, WHICH I KNEW WAS BELOW THE MSA BUT BASED ON MY LCL AREA KNOWLEDGE OF FLYING AROUND HERE FOR THE LAST 5 YRS, I WAS CONFIDENT THERE WERE NO OBSTRUCTIONS. WE JOINED THE LOC AT 2500 FT STILL HUGGING THE CLOUD BASES WITH VISUAL GND CONTACT. WE WERE ABOUT TO BEGIN A DSCNT ON THE GS SO I THOUGHT THIS UNCOMFORTABLE SITUATION WOULD BE OVER VERY SOON. HOWEVER, AS WE FLEW INBOUND ON THE LOC WAITING TO INTERCEPT THE GS, I LOST GND CONTACT. I RECHKED THE AWOS AT ZZZ AND IT STILL RPTED 2800 FT. WE WERE AT THAT POINT ABOUT 2 MI FROM THE FAF, ACCORDING TO THE GPS. I HAD BEEN MONITORING CTAF AND APCH AND DID NOT HEAR ANY OTHER ACFT, BUT KNEW IT WAS NOT A SAFE SITUATION. I THEN CONTACTED APCH ON OUR LAST FREQ AND ASKED FOR AN IFR CLRNC TO ZZZ AND WAS TOLD TO CONTACT APCH ON THE CORRECT FREQ IN THAT AREA.

AT THAT MOMENT WE EMERGED FROM THE CLOUD AT ABOUT 2200 FT MSL AND SAW THE RWY. WE MADE A FULL STOP LNDG, AND FILED AN IFR FLT PLAN FOR AN IMMEDIATE RETURN TO ZZZ1. THE AWOS AT OUR TIME OF DEP FROM ZZZ STILL RPTED 2800 FT OVCST (BASES AT ABOUT 3100 FT MSL) AND VISIBILITY 10 MI. THE RETURN FLT WAS UNEVENTFUL, WITH IMC BTWN 2500-3000 FT MSL. I LEARNED A FEW LESSONS LAST NIGHT. FIRST, NEVER DEPART AT NIGHT FOR A LCL FLT UNDER VFR WITH RPTED OR FORECAST CLOUDS SO LOW. I'VE ALWAYS TOLD MYSELF AND MY STUDENTS TO BE VERY WARY OF CLOUDS AT NIGHT BECAUSE YOU CAN'T SEE THEM, AND FOR SOME REASON I DIDN'T FOLLOW MY OWN ADVICE LAST NIGHT. THE BEST CHOICE WOULD HAVE BEEN TO FILE IFR OUT OF ZZZ1. THE CLOUD ENCOUNTER WOULD HAVE BEEN A NON-EVENT, AND I COULD HAVE EASILY CORRECTED ANY ALT OR HDG TRANSGRESSIONS MADE BY MY STUDENT. I REALIZED AFTERWARD THAT I SHOULD HAVE CONTACTED APCH FOR AN IFR CLRNC AS SOON AS I DISCOVERED THE LOWER BASES WHILE I WAS STILL IN VMC. (I COULD NOT HAVE TURNED AROUND AND RETURNED TO ZZZ1 WITHOUT CONTACTING APCH FIRST, DUE TO THE ADIZ.) I HESITATED AND ENDED UP SCUD RUNNING WITH A STUDENT. I READ AVIATION SAFETY, IFR AND OTHER JOURNALS REGULARLY AND CONSIDER MYSELF TO BE ONE OF THE MORE CONSERVATIVE, SAFER PLTS AROUND. BUT THIS EXPERIENCE WAS VERY HUMBLING AND I VOW TO NEVER REPEAT IT.

## **Synopsis**

A C172 CFI AND STUDENT APCHED ZZZ IMC WHILE UNDER VFR. WX BRIEF FORECAST VFR, BUT WHEN IMC ENCOUNTERED FLT CONTINUED ON ILS. IFR FILED ON GND FOR RETURN.

**ACN: 717452**

## **Time / Day**

Date : 200611  
Local Time Of Day : 1801 To 2400

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 1400

## **Environment**

Flight Conditions : VMC  
Weather Elements : Fog  
Light : Night

## **Aircraft : 1**

Controlling Facilities.TRACON : ZZZ.TRACON  
Operator.General Aviation : Corporate  
Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer  
Operating Under FAR Part : Part 91  
Navigation In Use.Other : GPS  
Flight Phase.Descent : Approach

## **Component : 1**

Aircraft Component : GPS & Other Satellite Navigation

## **Person : 1**

Affiliation.Company : Corporate  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Commercial  
Experience.Flight Time.Last 90 Days : 70  
Experience.Flight Time.Total : 3200  
Experience.Flight Time.Type : 300  
ASRS Report : 717452

## **Person : 2**

Affiliation.Government : FAA  
Function.Controller : Approach

## **Events**

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Altitude Deviation : Overshoot  
Anomaly.Non Adherence : Clearance  
Anomaly.Other Spatial Deviation  
Independent Detector.Other.ControllerA : 2  
Resolutive Action.Controller : Issued Advisory  
Resolutive Action.Flight Crew : Returned To Assigned Altitude



## **Assessments**

Problem Areas : Aircraft

Problem Areas : Flight Crew Human Performance

## **Narrative**

I WAS ON AN IFR CLRNC, BUT IN VMC ABOVE THE FOG LAYER. WHILE ON VECTORS FOR THE ILS, I WAS INSTRUCTED BY APCH TO DSND FROM 3000 FT MSL TO 1800 FT MSL. I WAS ATTEMPTING TO CORRECTLY LOAD AND ACTIVATE THE APCH INTO THE ACFT'S NEW GPS UNIT (GNS 430), WHICH I AM NOT YET FULLY PROFICIENT WITH, AND INADVERTENTLY DSNDED BELOW THE ASSIGNED ALT. I HAD JUST BEGUN TO ENTER THE FOG LAYER WHEN ATC ADVISED I WAS AT 1400 FT MSL VERSUS ASSIGNED ALT OF 1800 FT MSL. I IMMEDIATELY CLBED BACK TO ASSIGNED ALT AND THANKED THE CTLR FOR CATCHING THE ERROR. I CONTINUED THE APCH WITHOUT FURTHER INCIDENT. CONTRIBUTING FACTORS: UNFAMILIAR APCH, INCREASED CABIN WORKLOAD DUE TO LACK OF PROFICIENCY WITH NEW NAV EQUIP, AND REDUCED DILIGENCE OF INST SCAN WHILE OPERATING 'ON TOP' IN VMC, RESULTED IN FAILURE TO ARREST DSCNT AT ASSIGNED ALT. LESSONS LEARNED: PRACTICE! TAKE ADVANTAGE OF EVERY OPPORTUNITY TO PRACTICE WITH NEW EQUIP IN VFR CONDITIONS TO ACHIEVE PROFICIENCY REQUIRED TO OPERATE IT FLUENTLY IN THE IFR ENVIRONMENT. ADDITIONALLY, MAINTAIN A DILIGENT INST SCAN, EVEN WHEN OPERATING IN VISUAL CONDITIONS. FINALLY, AT THAT ALT OVER LEVEL TERRAIN, I COULD HAVE MORE EFFECTIVELY USED MY RADAR ALTIMETER WARNING BUG AS A TOOL FOR TRAPPING ERRORS LIKE THIS.

## **Synopsis**

PLT EXPERIENCES AN ALTDEV DUE IN PART TO DISTR WITH UNFAMILIAR GPS NAV SYS.

**ACN: 716952**

## Time / Day

Date : 200611  
Local Time Of Day : 0601 To 1200

## Place

Locale Reference.ATC Facility : CLT.TRACON  
State Reference : NC  
Altitude.MSL.Single Value : 2500

## Environment

Flight Conditions : VMC  
Light : Daylight

## Aircraft : 1

Operator.General Aviation : Personal  
Make Model Name : PA-28 Cherokee/Archer II/Dakota/Pillan/Warrior  
Operating Under FAR Part : Part 91  
Flight Phase.Climbout : Initial

## Person : 1

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Experience.Flight Time.Last 90 Days : 15  
Experience.Flight Time.Total : 265  
Experience.Flight Time.Type : 10  
ASRS Report : 716952

## Events

Anomaly.Airspace Violation : Entry  
Anomaly.Non Adherence : FAR  
Anomaly.Other Spatial Deviation  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.None Taken : Detected After The Fact

## Assessments

Problem Areas : Aircraft  
Problem Areas : Flight Crew Human Performance

## Narrative

DEPARTED EOY RWY 23 IN MONROE, NC, AND BECAME DISTR WHILE TRYING TO ENTER A WAYPOINT INTO A GPS UNIT WHICH I HAD NOT PREVIOUSLY USED. I RECOGNIZED I WAS OFF COURSE NEAR FML AND IMMEDIATELY MADE A TURN BACK TOWARDS MY DESIRED HDG. IT IS POSSIBLE I ENTERED THE CHARLOTTE CLASS B AIRSPACE AT ITS MOST SOUTHERN PORTION, NEAR FML, WHERE CTLED

AIRSPACE BEGINS AT 2200 FT MSL. MY ALT WAS 2500 FT MSL. IN HINDSIGHT, IT WOULD HAVE BEEN PRUDENT TO HAVE SPENT SOME ADDITIONAL TIME FAMILIARIZING MYSELF WITH THE GPS UNIT, AND ENTERED THE WAYPOINT PRIOR TO DEP.

### **Synopsis**

A PA28 PLT HAS CLT CLASS B AIRSPACE INCURSION. PLT DRIFTED OFF COURSE WHILE ATTEMPTING TO PROGRAM AN UNFAMILIAR GPS.

**ACN: 716829**

## **Time / Day**

Date : 200611  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 2800

## **Environment**

Flight Conditions : VMC  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.Tower : ZZZ.Tower  
Operator.General Aviation : Personal  
Make Model Name : PA-32 Cherokee Six/Lance/Saratoga  
Operating Under FAR Part : Part 91  
Flight Phase.Descent : Approach

## **Aircraft : 2**

Controlling Facilities.Tower : ZZZ.Tower  
Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer  
Flight Phase.Other

## **Component : 1**

Aircraft Component : ILS/VOR

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : CFI  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Experience.Flight Time.Last 90 Days : 50  
Experience.Flight Time.Total : 1450  
Experience.Flight Time.Type : 3  
ASRS Report : 716829

## **Person : 2**

## **Person : 3**

Affiliation.Government : FAA  
Function.Controller : Local

## **Events**

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Conflict : Airborne Less Severe  
Anomaly.Non Adherence : Clearance  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.None Taken : Detected After The Fact  
Miss Distance.Horizontal : 1500  
Miss Distance.Vertical : 500

## **Assessments**

Problem Areas : Flight Crew Human Performance

## **Narrative**

WAS PRACTICING ILS APCH AT ZZZ IN VMC. FORGOT TO RPT THE OM AS REQUESTED BY TWR. WAS DISTR BY LOC NOT SEEMING TO WORK AND NOT AGREEING WITH GPS COURSE LINE. UNFAMILIAR WITH AVIONICS SETUP. MISTAKEN FREQ WAS THE PROB. WAS NOT CLRED FOR THE OPTION BUT PROCEEDED ANYWAY. POTENTIAL LOSS OF SEPARATION WITH OTHER TFC IN PATTERN. ON AN IPC.

## **Synopsis**

PA32 PLT NEGLECTS TO RPT FAF AS DIRECTED AND HAS CONFLICT.

**ACN: 715854**

## **Time / Day**

Date : 200611  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Airport : HDC.Airport  
State Reference : LA  
Altitude.MSL.Single Value : 2000

## **Environment**

Flight Conditions : VMC  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.TRACON : MSY.TRACON  
Operator.General Aviation : Personal  
Make Model Name : M-20 J (201)  
Operating Under FAR Part : Part 91  
Flight Phase.Descent : Approach  
Route In Use.Approach : Instrument Precision

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Experience.Flight Time.Last 90 Days : 100  
Experience.Flight Time.Total : 650  
Experience.Flight Time.Type : 130  
ASRS Report : 715854

## **Person : 2**

Affiliation.Government : FAA  
Function.Controller : Approach

## **Events**

Anomaly.Non Adherence : Clearance  
Anomaly.Non Adherence : Published Procedure  
Anomaly.Other Spatial Deviation  
Independent Detector.Other.ControllerA : 2  
Resolatory Action.Controller : Provided Flight Assist  
Resolatory Action.Flight Crew : Executed Missed Approach

## **Assessments**

Problem Areas : Aircraft

Problem Areas : Flight Crew Human Performance

## **Narrative**

WE WERE INTERCEPTING THE LOC FOR RWY 18 IN HAMMOND AT 2000 FT MSL WHEN ATC (NEW ORLEANS) ADVISED THAT I COULD SWITCH TO CTAF TO COMPLETE THE APCH. ALTHOUGH WE HAD BROKEN OUT OF THE WX AT ABOUT 2500 FT, I DECIDED TO CONTINUE ON WITH THE APCH FOR PRACTICE, AND THOUGHT IT BEST TO CANCEL IFR FROM THE GND. MY COUSIN, AN INST RATED PVT PLT, WAS WITH ME, AND HE HAD NEVER USED AN HSI BEFORE. I THOUGHT I COULD GIVE HIM A DEMO WITH THIS APCH. I HAD POINTED OUT THE SWITCH TO CHANGE THE HSI FROM SENSING THE GPS TO THE NAV, AND MUST HAVE SOMEHOW MENTALLY CHKD THAT ITEM OFF OF MY CHKLIST. THE SWITCH DID NOT GET SET TO 'VOR' SO THE CDI DID NOT INDICATE THAT WE WERE BLOWING RIGHT THROUGH THE LOC. THE ARPT WAS NOT YET IN SIGHT, BUT WE WERE IN VMC. THE NEW ORLEANS CTLR NOTICED THAT WE WERE OUT OF POS -- SW OF THE INBOUND COURSE BY A COUPLE OF MI -- AND NOTIFIED US ON THE CTAF. THERE WAS A MOMENT OF CONFUSION HERE. YOU SEE, IT APPEARS THE HSI WAS PICKING UP THE GS AND INDICATING WE HAD NOT YET REACHED THE LOC. THE LATTER COULD POSSIBLY BE EXPLAINED BY VECTORING, BUT THE FORMER, A WORKING GS WHILE THE HSI WAS SET TO 'GPS' WAS SOMETHING I HAD NEVER BEFORE EXPERIENCED. I KNEW THERE WAS VERY LITTLE DANGER OF HITTING AN OBSTACLE BECAUSE THE LAND IS VERY FLAT SURROUNDING HDC AND I HAD OVER 4 MI VISIBILITY. THE FIRST THOUGHT THAT OCCURRED TO ME WAS THAT THE NAV WAS OUT, AND WE WOULD HAVE TO SWITCH TO THE OTHER NAV AND INDICATOR. I RPTED THIS TO NEW ORLEANS (NOW ON THEIR FREQ), DECLARED A MISSED APCH AND REQUESTED VECTORS. THE CTLRS OBLIGED. I NOTICED DURING OUR SECOND APCH THAT I HAD LEFT THE SWITCH ON 'GPS' (A FIRST FOR ME). THEN I THOUGHT THAT THE SWITCH MUST HAVE BEEN STUCK BTWN THE TWO OR SOMETHING, BUT UPON FURTHER INVESTIGATION I MUST ADMIT THIS IS IMPOSSIBLE. THE SWITCH WORKS PERFECTLY.

## **Synopsis**

MOONEY 20J PLT HAS A TRACK AND HDG DEV DURING APCH TO HDC.

**ACN: 715001**

## **Time / Day**

Date : 200610  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Airport : LBB.Airport  
State Reference : TX  
Altitude.AGL.Single Value : 500

## **Environment**

Flight Conditions : IMC  
Weather Elements : Rain  
Light : Daylight

## **Aircraft : 1**

Operator.General Aviation : Personal  
Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer  
Operating Under FAR Part : Part 91  
Flight Phase.Descent : Intermediate Altitude

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Private  
Experience.Flight Time.Last 90 Days : 30  
Experience.Flight Time.Total : 50  
Experience.Flight Time.Type : 290  
ASRS Report : 715001

## **Events**

Anomaly.Incursion : Runway  
Anomaly.Inflight Encounter : VFR In IMC  
Anomaly.Inflight Encounter : Weather  
Anomaly.Non Adherence : FAR  
Anomaly.Other Anomaly.Other  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.Flight Crew : Diverted To Another Airport  
Resolatory Action.Flight Crew : Exited Adverse Environment

## **Assessments**

Problem Areas : Airport  
Problem Areas : Flight Crew Human Performance  
Problem Areas : Weather

## **Narrative**



I WAS FLYING FROM MTJ TO THE SAN ANTONIO AREA WITH A VFR FLT PLAN FILED. WX BRIEFINGS BEFORE THE FLT HAD INDICATED MARGINAL VFR TO IFR WX THROUGH CENTRAL, SOUTHERN, AND WEST TEXAS. I KNEW I WOULD LIKELY NEED TO LAND SHORT OF MY DEST BUT I WAS TRYING TO GET AS CLOSE AS I COULD BEFORE NEEDING TO CONTINUE THE TRIP BY GND VEHICLE. I HAD PLANNED A STOP AT PVW. THE WX WAS CLR VFR UNTIL APPROX 30 MI N OF PVW WHERE A LARGE TSTM MADE ME DEVIATE SLIGHTLY E OF COURSE. COMING AROUND THIS STORM THE LOWER CLOUD LAYER WAS SCATTERED TO BROKEN AND IT WAS UNCLR WHETHER THESE CLOUDS WERE ONLY ASSOCIATED WITH THE STORM OR THE BEGINNINGS OF WHAT WOULD BECOME AN OVCST LAYER. I ELECTED TO DSNL BELOW THE LAYER WHICH WAS ABOUT 1500 FT AGL. VERY QUICKLY THIS BECAME AN OVCST LAYER WITH SCATTERED RAIN SHOWERS REQUIRING DEVS IN COURSE. I PASSED JUST N OF PLAINVIEW. THE CLOUD LAYER THEN OPENED BACK UP WITH LARGE AREAS OF BLUE SKY. WITH MARGINAL CEILINGS I DECIDED TO CLB BACK ON TOP AND PROCEED FURTHER S TOWARDS SAN ANTONIO. THE LAYER BECAME SOLID OVCST BELOW AND AFTER FLYING FOR ABOUT 30 MINS IT WAS VERY APPARENT THAT IT WOULD LIKELY NOT OPEN UP AGAIN BEFORE SAN ANTONIO. I TURNED BACK N, PLANNING TO FLY BACK INTO VFR CONDITIONS FOR DSCNT AND LNDG. WHILE FLYING BACK, A HOLE WAS SPOTTED IN THE OVCST WITH GND VISIBLE. I DSNDED THROUGH THIS HOLE IN VFR CONDITIONS FROM 9500 FT MSL, BUT FOUND THE CLOUD BASES TO BE VERY LOW, APPROX 700 FT AGL. I WAS S OF LBB AT THIS TIME AND TUNED TO LBB ATIS WHICH CONFIRMED A CEILING OF 700 FT AGL. I WAS NOW AT A POINT THAT I COULD NOT CLB BACK UP AS I HAD LOST SIGHT OF THE PREVIOUS HOLE IN THE OVCST LAYER. I FOUND MYSELF TO BE IN MARGINAL VFR CONDITIONS DUE TO THE LOW CEILING BUT STILL REASONABLE VISIBILITIES OF ABOUT 4-5 MI (IN CLASS G AIRSPACE). I DECIDED TO TRY AND MAKE IT TO LBB AND WAS LOCATING THE FREQ FOR LUBBOCK APCH. VERY QUICKLY I WAS IN AN AREA OF SCATTERED RAIN SHOWERS REDUCING VISIBILITY REQUIRING DEVS IN COURSE. I BECAME VERY CONCERNED I WOULD LOSE CONTACT WITH GND REF AND QUICKLY PUSHED THE NEAREST BUTTON ON MY GPS. THIS IDENTED 2F4 (TAHOKA) AS THE NEAREST ARPT. I CHANGED COURSE AND TUNED 122.8 CTAF. I ANNOUNCED MY INTENTIONS OF MAKING AN EMER LNDG ABOUT 5 MI FROM THE ARPT, WITH NO RESPONSE ON FREQ. I OVERFLEW THE ARPT AT APPROX 400 FT AGL MIDFIELD TO IDENT WIND CONDITIONS. I SPOTTED A FLAG ON A CONSTRUCTION VEHICLE INDICATING A STRONG WIND FROM THE S. I QUICKLY TURNED TO A R DOWNWIND, LOWERED MY GEAR AND FLAPS, AND TURNED BASE AND FINAL. ON SHORT FINAL I NOTED A LARGE YELLOW 'X' JUST OFF THE APCH END OF THE RWY. THERE WERE NO 'X' MARKINGS ON THE RWY ITSELF. THE RWY VISUALLY APPEARED TO BE USABLE AND I MADE THE DECISION TO LAND. THE NEXT DAY I CAME BACK TO THE AIRPLANE AND MOVED IT TO F82. I SPOKE WITH AN INDIVIDUAL AT THE ARPT WHO CONFIRMED IT WAS CLOSED AND THE RWY WAS SCHEDULED TO BE TORN UP VERY SOON. I INFORMED HIM OF MY INTENTIONS TO MOVE THE AIRPLANE. I MADE A CRUCIAL ERROR IN THIS FLT THAT CAUSED ME TO ENTER INTO VERY MARGINAL CONDITIONS. I HAD JUST PASSED THROUGH THE LUBBOCK AREA 30 MINS PRIOR AND FOUND VFR CONDITIONS BELOW THE CLOUD BASES. I FAILED TO OBTAIN THE CURRENT ATIS AT LUBBOCK PRIOR TO MY DSCNT THROUGH THE BREAK IN THE CLOUDS. THE ATIS WOULD HAVE SHOWN CONDITIONS HAD CHANGED TO VERY LOW CEILINGS, AND I WOULD NOT HAVE DSNDED. I WOULD HAVE CONTINUED FURTHER N TO CLR VFR CONDITIONS BEFORE DSCNT. DSNDRG THROUGH A HOLE IN AN OVCST LAYER, ALTHOUGH DONE VFR RESPECTING CLOUD DISTANCE RESTRS, IS VERY RISKY AND I WILL NOT DO THAT AGAIN UNLESS ASSURED GOOD VFR

CONDITIONS EXIST BELOW THE BASES. I ENDED UP MAKING AN EMER LNDG ON A CLOSED RWY. AS I OVERFLEW THE RWY MIDFIELD AT LOW ALT I COULD NOT SEE THE YELLOW 'X' LAYING IN GRASS OFF THE ENDS OF THE RWYS. ALL OTHER RWY MARKINGS WERE VISIBLE AND GAVE THE APPEARANCE OF AN OPEN ARPT. IT WAS NOT UNTIL SHORT FINAL THAT THE CLOSURE MARKINGS WERE VISIBLE. IT WOULD BE MORE APPARENT IF THEY WERE ON THE RWY ITSELF COVERING THE RWY DIRECTION NUMBERS. NONETHELESS I FELT IT WAS AN EMER SIT AND CHOSE TO LAND.

### **Synopsis**

PLT ON VFR FLT PLAN FLIES INTO IMC CONDITIONS AND MUST MAKE EMER LNDG AT CLOSED ARPT.

**ACN: 714962**

## **Time / Day**

Date : 200610  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.ATC Facility : ZZZ.TRACON  
State Reference : US  
Altitude.MSL.Bound Lower : 3000  
Altitude.MSL.Bound Upper : 4000

## **Environment**

Flight Conditions : IMC  
Weather Elements : Rain  
Weather Elements : Turbulence  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.Military Facility : ZZZ.MILFAC  
Operator.General Aviation : Personal  
Make Model Name : PA-28 Cherokee/Archer II/Dakota/Pillan/Warrior  
Operating Under FAR Part : Part 91  
Flight Phase.Descent : Approach  
Route In Use.Arrival : On Vectors

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Function.Oversight : PIC  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Experience.Flight Time.Last 90 Days : 35  
Experience.Flight Time.Total : 2100  
ASRS Report : 714962

## **Person : 2**

Affiliation.Government : Military  
Function.Controller : Approach

## **Events**

Anomaly.Non Adherence : FAR  
Anomaly.Other Anomaly.Other  
Independent Detector.Other.ControllerA : 2  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.Controller : Provided Flight Assist  
Resolatory Action.Flight Crew : Became Reoriented  
Resolatory Action.Flight Crew : Declared Emergency

Resolatory Action.Flight Crew : Diverted To Another Airport  
Resolatory Action.Flight Crew : Landed In Emergency Condition  
Consequence.FAA : Reviewed Incident With Flight Crew

## Assessments

Problem Areas : Flight Crew Human Performance  
Problem Areas : Weather

## Narrative

I WAS IFR ENRTE FROM ZZZ1 TO ZZZ2 WITH A FUEL STOP, A TRIP I HAVE MADE SEVERAL TIMES IN THE PAST 4 YRS. THE EXPECTED TIME ENRTE WAS 3 HRS, 15 MINS PER THE FLT PLANNER. FUEL ON BOARD WAS 4.1 HRS AT 10 GPH. THERE WAS AN EXTENSIVE WX SYS PRODUCING GREEN AND YELLOW RETURNS ALONG MOST OF MY RTE SO I WAS CONSTANTLY CHKING THE METARS THROUGH MY ONBOARD XM WX. AT 100 MI OUT, ZZZ WAS 200 AND 3 MI VISIBILITY. I SWITCHED TO ZZZ3 BECAUSE I HAD BEEN THERE BEFORE AND THEY HAD AN ILS 8 WHICH WAS WELL ALIGNED WITH THE RPTED WIND. AT 100 MI, ZZZ3 NEEDED ABOUT A 20 DEG R TURN. ZZZ3 WAS ESSENTIALLY THE SAME DISTANCE AS ZZZ AND I WAS EXPECTING TO ARRIVE THERE IN ABOUT THE SAME FLT TIME. CRITICALLY, AT THIS POINT, I DID NOT LOOK AT THE GND SPD. I HAD BEEN MAKING ABOUT 124 KTS ON THE WAY DOWN AND EXPECTED THAT THE 20 DEG TURN WOULD RESULT IN ABOUT THE SAME SPD. AT THIS TIME, I WAS ON THE THIRD HR OF FUEL, HAVING BURNED 2 HRS OUT OF THE L TANK. NEITHER TANK WAS QUITE FULL WHEN THE TRIP STARTED SO WHEN THE SECOND HR OF BURN WAS COMPLETED THE L TANK GAUGE SHOWED BELOW 5 GALS REMAINING, AND IN AN AREA I KNEW TO BE VERY UNRELIABLE IN PREDICTING REMAINING FUEL. IN FACT, IN THIS AREA, I KNEW THAT A BANK OR PITCH DOWN COULD RESULT IN UNPORTING OF THE FUEL PICKUP AND CAUSE FUEL STARVATION. I LOOKED AT THE GND SPD AND WAS ASTOUNDED TO FIND IT WAS 84 KTS. I CHKED ALL GAUGES TO SEE IF SOMETHING WAS WRONG WITH THE PLANE BUT NOTHING SHOWED UP. THE WIND ARROWS SHOWING ON THE XM DISPLAY WERE THE SAME AS I HAD BEEN SEEING AND WOULD NOT HAVE CAUSED 40 KTS CHANGE. I WAS GIVEN THE GPS 8 AS THE ILS WAS OTS AND WAS BEING VECTORED TO THE FINAL APCH COURSE. IT WAS GOING TO BE A LONG TIME BEFORE I WOULD EVEN BE TURNED ONTO THE FINAL APCH COURSE. BY THIS TIME, THE R TANK (TANK BEING USED) FUEL GAUGE HAD ALSO DSNDED INTO THE UNRELIABLE ZONE. I REQUESTED AN EARLY TURN ON TO FINAL BECAUSE I WAS FUEL CRITICAL. A LITTLE MORE TIME WENT BY AND WITH THE VERY LOW SPD I WAS MAKING OVER THE GND, AND WITH UNKNOWN FUEL RESERVES, I DECLARED AN EMER. ATC IMMEDIATELY SUGGESTED ZZZ4. I ACCEPTED AND WAS GIVEN THE FREQS FOR THEIR ILS AND THEIR GND CTLED APCH CTLR. I WAS VERY GRATEFUL, BUT THE SITUATION STARTED DETERIORATING. AT THIS POINT I WAS CLOSE TO TASK OVERLOAD. I NEEDED TO SET MY 430 TO GO DIRECT TO ZZZ AFB. I COULD SEE THE ARPT DEPICTED ON THE 430 DISPLAY, BUT I DIDN'T SEE HOW I WAS GOING TO BE ABLE TO ACCESS IT, SO I MADE NO CHANGES. WHEN I EITHER TURNED OR PITCHED DOWN, I CAN'T RECALL WHICH, THE FUEL UNPORTED AND PWR WAS LOST. RECOGNIZING THIS FOR WHAT IT WAS, I IMMEDIATELY SWITCHED TANKS AND THE ENG RESTARTED. AT THIS POINT THE TANK THAT WAS REGISTERING FULLEST HAD UNPORTED, AND THE TANK SWITCHED TO HAD A SIMILAR, BUT UNKNOWN AMOUNT OF FUEL. NOW I TRULY WENT INTO TASK OVERLOAD WITH ABOUT AN IQ OF 10. SITUATIONAL AWARENESS WAS NONEXISTENT. I DID NOT KNOW WHERE I WAS. THE CTLR WAS THE ONLY PERSON WHO KNEW WHERE I

WAS. CTLR SAID THEY SHOWED ME N OF THE LOC AND EVEN THOUGH I COULD SEE THE NEEDLE PEGGED TO THE R, I COULD NOT DECIDE WHICH WAY TO TURN. FINALLY I STARTED CORRECTING, ALL THE WHILE THE CTLR WAS IN THE BACKGROUND GIVING THE ONLY SITUATIONAL AWARENESS THERE WAS. FINALLY, WHEN I WAS ADVISED I COULD GO NO LOWER AND WOULD HAVE TO GO AROUND (I WAS VIRTUALLY TERRIFIED THAT THERE WAS NOT ENOUGH FUEL TO DO ANY GOING AROUND) I HAD SOME GND CONTACT AND WAS LOOKING DOWN ON RWY XX AT ABOUT A 45 DEG ANGLE AND ABOUT TWO-THIRDS OF THE WAY PAST THE THRESHOLD. I ANNOUNCED THAT I WAS CIRCLING TO LAND ON RWY YY AND LANDED DOWNWIND. I WAS MET BY FIRE TRUCKS AND A FOLLOW ME TO THE MIL BASE SIDE AND A LOT OF PAPERWORK AND QUESTIONING. I DIDN'T CARE, I WAS SAFELY ON THE GND. I HAVE ALWAYS MADE SURE I HAVE ENOUGH FUEL FOR ANY TRIP AND THAT THERE IS BOTH A LEGAL AND A COMFORTABLE AMOUNT OF FUEL REMAINING AFTER LNDG. THERE WERE 2 LINKS IN THIS CHAIN: FIRST WAS MISSING THE EXTRAORDINARY WIND VALES ENRTE FROM MY WX BRIEFING, AND THE SECOND WAS NOT NOTICING THE 40 KT DROP FROM A 20 DEG HDG CHANGE FOR FAR TOO LONG A TIME. IN THIS CASE, I THINK THE PROB IS ALSO PART OF THE CORRECTIVE ACTION. HAVING EXPERIENCED THIS FUEL EXHAUSTION EMER, IT WILL FOREVER BE A VERY FORCEFUL REMINDER TO CONSTANTLY EVAL FUEL STATUS. I WILL ALSO RE-FAMILIARIZE MYSELF WITH MY GPS SO I CAN ENTER EMER DATA WITHOUT HAVING TO THINK.

## **Synopsis**

PA28 PLT FAILED TO MONITOR GROUND SPEED, DECLARED AN EMER DUE TO LOW FUEL, BECAME TASK SATURATED, AND LOST SITUATIONAL AWARENESS. GCA CTLR GUIDED PLT TO A LNDG AT A MIL FIELD.

**ACN: 714819**

## **Time / Day**

Date : 200610  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Airport : ABE.Airport  
State Reference : PA

## **Environment**

Flight Conditions : VMC  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.Tower : ABE.Tower  
Operator.General Aviation : Personal  
Make Model Name : Small Aircraft, Low Wing, 1 Eng, Fixed Gear  
Operating Under FAR Part : Part 91  
Flight Phase.Descent : Approach  
Flight Phase.Landing : Roll

## **Person : 1**

Function.Observation : Passenger  
Function.Other Personnel.Other  
Qualification.Pilot : CFI  
Qualification.Pilot : Commercial  
Experience.Flight Time.Last 90 Days : 70  
Experience.Flight Time.Total : 2000  
Experience.Flight Time.Type : 1000  
ASRS Report : 714819

## **Person : 2**

Affiliation.Government : FAA  
Function.Controller : Local  
Qualification.Controller : Radar  
Experience.Controller.Radar : 25  
ASRS Report : 714820

## **Person : 3**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Function.Oversight : PIC

## **Person : 4**

Affiliation.Government : FAA  
Function.Controller : Ground

## Events

Anomaly.Airspace Violation : Entry  
Anomaly.Incursion : Landing Without Clearance  
Anomaly.Incursion : Runway  
Anomaly.Non Adherence : FAR  
Independent Detector.Other.ControllerA : 4  
Resolatory Action.None Taken : Detected After The Fact

## Assessments

Problem Areas : Flight Crew Human Performance

## Narrative

WE WERE TO FLY TO QUEEN CITY, PA, 1N9. HE WAS PIC, SET THE FLT PLAN, WAS FAMILIAR WITH THE AREA, KNEW THE FREQS FROM MEMORY, CONTACTED ATC TO ADVISE OF PLAN. ATC ADVISED ARPT 12 O'CLOCK POS 6 MI, HE ADVISED ARPT IN SIGHT, WHICH I ALSO SAW AND WAS CONSISTENT WITH NOTICE FROM ATC. I WATCHED FOR TFC, HE FLEW THE PATTERN AND LANDED. WE DEPARTED A FEW MINS LATER, CALLED ATC FOR DEP CLRNC AND WERE ADVISED WE LANDED AT ABE, A CLASS C ARPT 5 MI AWAY FROM 1N9. IT WAS VISUAL CONDITIONS AND WE HAD NO CONFLICTS WITH ANY TFC. THIS OCCURRED BECAUSE HE WAS IN AN UNFAMILIAR PLANE AND I WAS IN AN UNFAMILIAR AREA. HE WAS RELYING ON ME TO MANAGE THE AVIONICS AND I WAS RELYING ON HIM TO KNOW WHERE HE WAS. I WAS LOOKING OUTSIDE THE PLANE FOR TFC AND DID NOT CONFIRM OUR LOCATION WITH THE GPS IN THE PLANE. HE APPARENTLY RECOGNIZED THE FIELD BUT DID NOT REALIZE IT WAS THE WRONG ONE. I TOOK HIS RECOGNITION FOR GRANTED NOT KNOWING THERE WAS ANOTHER ARPT IMMEDIATELY ADJACENT TO OUR DEST. THIS COULD HAVE BEEN AVOIDED BY TALKING THROUGH THE FLT IN ADVANCE AND BY RECONFIRMING OUR LOCATION WITH THE GPS EQUIP ON BOARD. CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO: THE PLT RPTR BELIEVES THAT WHEN THE APCH CTLR POINTED OUT THE ARPT AT 12 O'CLOCK POS 6 MI, THEY WERE OVER 1N9 AND THE CTLR WAS ACTUALLY POINTING OUT ABE. SUPPLEMENTAL INFO FROM ACN 714820: AT APPROX XA15 WHILE WORKING LCL CTL AT ABE, ABE APCH CTL POINTED OUT A VFR ACFT, 10 NM SW OF ABE ARPT, DSNDING EBOUND FOR 1N9 ARPT (AN UNCTLED ARPT LOCATED 5 NM SW OF ABE ARPT). I OBSERVED THAT THE EXTENDED DOWNWIND OF THIS ACFT TO 1N9 BEGAN TO LOOK MORE LIKE A L BASE ENTRY FOR RWY 31 AT ABE. I INFORMED THE RADAR CTLR OF THIS SITUATION, WHO THEN TOLD ME THAT THE ACFT HAD ALREADY BEEN SWITCHED TO UNICOM FREQ. I WIDEN OUT AND TURNED MY PATTERN TFC, IN THE CHANCE THAT THE COLUMBIA PLT MAY SOON REALIZE HIS ARPT IDENT ERROR, AND THEN TURN AWAY FROM ABE ARPT. ABE AND 1N9 HAVE SIMILAR INTERSECTING RWY CONFIGNS, WITH ABE HAVING RWYS 31/24, AND 1N9 HAVING RWYS 33/25. CONSIDERING THE POSSIBILITY THAT HE MAY BE HAVING SOME RADIO PROB AND NOW INTENDING TO LAND AT ABE, I GAVE HIM A GREEN LIGHT TO LAND. HE ROLLED OUT WITHOUT INCIDENT, AND TURNED L AT THE FIRST TXWY (B3) TO THE GA RAMP. AT APPROX XA35 (15 MINS LATER), I OBSERVED A SINGLE ENG ACFT ENTER ONTO RWY 31 FROM THE GA RAMP VIA TXWY B3, AND BEGIN A BACK-TAXI TO THE APCH END RWY 31. WHEN ASKED, GND CTL TOLD ME THAT HE DID NOT ISSUE A TAXI CLRNC TO ANYONE. SEVERAL ATTEMPTS TO CONTACT THE ACFT WERE UNANSWERED. AS THE COLUMBIA WAS TURNING AROUND AT THE APCH END OF RWY 31 AND UNCERTAIN AS TO WHEN AND WHERE THIS COLUMBIA 3 WILL GO, I CANCELED THE RWY 24 LNDG CLRNC FOR A CRJ2 WHO WAS NOW ON A 2.5 NM FINAL, AND

ISSUED A CLBING TURN AWAY FROM ABE ARPT. I THEN OBSERVED THE COLUMBIA DEPART RWY 31 AND TURN SWBOUND. I INFORMED THE RADAR CTLR ABOUT THE SITUATION, AND HIS RADAR POS. SHORTLY AFTERWARDS, THE COLUMBIA CONTACTED ABE APCH, REQUESTING TA'S FROM 1N9 TO ZZZ. THE RADAR CTLR THEN ADVISED HIM OF HIS ERRORS. HE WAS GIVEN A TELEPHONE NUMBER, AND WAS INSTRUCTED TO CALL ABE APCH'S SUPVR AS SOON AS HE LANDED.

### **Synopsis**

COLUMBIA 3 PLT MISTAKES ABE FOR 1N9 AND LANDS WITHOUT CLRNC, THEN DEPARTS WITHOUT CLRNC.



**ACN: 714695**

## **Time / Day**

Date : 200610  
Local Time Of Day : 0601 To 1200

## **Place**

Locale Reference.Airport : PHX.Airport  
State Reference : AZ  
Altitude.MSL.Single Value : 5500

## **Environment**

Flight Conditions : VMC  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.TRACON : P50.TRACON  
Operator.General Aviation : Personal  
Make Model Name : Cessna Aircraft Undifferentiated or Other Model  
Operating Under FAR Part : Part 91  
Navigation In Use.Other : GPS  
Flight Phase.Cruise : Level

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : ATP  
Qualification.Pilot : CFI  
Experience.Flight Time.Last 90 Days : 30  
Experience.Flight Time.Total : 2900  
Experience.Flight Time.Type : 500  
ASRS Report : 714695

## **Person : 2**

Affiliation.Other : Personal  
Function.Observation : Passenger

## **Person : 3**

Affiliation.Government : FAA  
Function.Controller : Approach

## **Events**

Anomaly.Altitude Deviation : Excursion From Assigned Altitude  
Anomaly.Non Adherence : Clearance  
Anomaly.Other Spatial Deviation  
Independent Detector.Other.Flight CrewA : 1  
Resolutive Action.Flight Crew : Returned To Assigned Altitude  
Resolutive Action.Flight Crew : Returned To Intended or Assigned Course

## Assessments

Problem Areas : Airspace Structure  
Problem Areas : Chart Or Publication  
Problem Areas : Flight Crew Human Performance

## Narrative

PHOENIX APCH HAS A REPUTATION AS UNCOOPERATIVE WITH SMALLER ACFT, SO I PROGRAMMED IN SQUAW PEAK, THE START OF THE TRANSITION THROUGH THE CLASS B AIRSPACE, INTO THE GPS SO THAT I COULD GIVE MY INITIAL POS RELATIVE TO SQUAW PEAK AND CONVEY THAT I HAD MY ACT TOGETHER. (I HAVE AN OLDER DATA CARD WHICH DOES NOT HAVE THE VISUAL POINTS.) AS WE GOT CLOSER TO THE GPS WAYPOINT, THINGS DIDN'T LOOK RIGHT. THE PF, A VERY COMPETENT (AS I OBSERVED ON OUR LAST FLT TOGETHER) BUT NOT LEGALLY CURRENT PLT, COMPLETED THE LEVELOFF AT 5000 FT THAT ATC INSTRUCTED. AFTER A FEW MOMENTS WITH THE TERMINAL AREA CHART, IT BECAME APPARENT THAT THERE WAS A GROSS GPS PROGRAMMING ERROR, AND WE RESUMED VISUAL NAV. HOWEVER, MY VERY COMPETENT FRIEND HAD US AT 4500 FT AND DSDNDING, NOT FLYING THE AIRPLANE PER HIS REPUTATION. WE PROMPTLY TOOK APPROPRIATE REMEDIAL ACTION, AND XING PHX WAS UNEVENTFUL. I DISCOVERED THE PROB LATER. SQUAW PEAK IS XX MI FROM PXR ON THE 330 DEG RADIAL, BUT ON THE TERMINAL AREA CHART, ONLY ONE '3' IN '33' ON THE VOR COMPASS ROSE IS PRINTED -- THE OTHER IS OBSCURED BY OTHER SYMBOLOGY. WHAT I INTERPED AS '030' WAS IN FACT '330.' THUS THE GPS WAS PROGRAMMED WITH A 60 BEARING ERROR. I MADE THE MISTAKE, BUT I HAD A WHOLE LOT OF HELP FROM NOAA IN MAKING IT. ALSO, THE ARR PROCS FOR THE CGZ SPECIFY A PIT MINE 3.6 MI W OF THE ARPT, AND THAT VERY DISTINCTIVE PIT MINE IS NOT ON THE TERMINAL AREA CHART. CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO: RPTR REITERATED HIS BELIEF THAT THE VFR TERMINAL CHART SHOULD BE MORE CLR AND THAT THE OPEN PIT MINE 3.6 MI W OF CGZ SHOULD BE ON THE MAP.

## Synopsis

PLT RPTS PROBS WITH PHX VFR TERMINAL CHART.

**ACN: 714509**

## **Time / Day**

Date : 200610  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Airport : A08.Airport  
State Reference : AL  
Altitude.MSL.Single Value : 4000

## **Environment**

Flight Conditions : IMC  
Weather Elements : Rain  
Weather Elements : Turbulence  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.TRACON : MGM.TRACON  
Operator.General Aviation : Personal  
Make Model Name : Skyhawk 172/Cutlass 172  
Operating Under FAR Part : Part 91  
Flight Phase.Cruise : Level

## **Component : 1**

Aircraft Component : Engine

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : ATP  
Qualification.Pilot : CFI  
Experience.Flight Time.Last 90 Days : 150  
Experience.Flight Time.Total : 27000  
Experience.Flight Time.Type : 1000  
ASRS Report : 714509

## **Person : 2**

Affiliation.Government : FAA  
Function.Controller : Approach

## **Events**

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Inflight Encounter : Turbulence  
Anomaly.Inflight Encounter : Weather  
Anomaly.Non Adherence : FAR  
Independent Detector.Other.Flight CrewA : 1

Resolatory Action.Controller : Provided Flight Assist  
Resolatory Action.Flight Crew : Landed In Emergency Condition

## Assessments

Problem Areas : Aircraft  
Problem Areas : Flight Crew Human Performance  
Problem Areas : Weather

## Narrative

I FILED 2 FLT PLANS AND CHKED WX, NOTAMS, WIND. NO ALT FILED AT THIS TIME AS WX OK. DURING FIRST FUEL STOP RECHKED WX RADAR SHOWED RAIN AT GTR. GTR +3 MI -RW HIGH OVCST LATER THAT DAY TSTM IN FORECAST. RECHK AND DEPARTED DHN FOR UBS. CLBED SBOUND TILL 3000 FT THAN ATC GAVE NBOUND AS FILED. TALKED TO ATC AND FSS ENRTE WX GTR +3 MI 1000 FT SCATTERED, 800 FT OVCST ENRTE ADDED GTR AS ALT. ATC ADVISORY WX MOVING NE AT 30 KTS FROM 25 MI NE OF MERIDIAN 30 MI FROM UBS TOOK WX DEV (IN LIGHT RAIN LIGHT CHOP). PASSING OVER UBS DID NOT EXECUTE VOR APCH AS HVY RAIN AND TURB WENT TO VOR AND ASKED FOR ILS RWY 18 AT GTR ATC COMPLIED. DURING APCH TWR ADVISED ARPT BELOW MINIMUMS. COMPLIED WITH MISSED APCH IN HVY RAIN AND TURB. I ADVISED MGM NEW DEST ATC GAVE ME HDG OF 150 DEGS BECAUSE OF TFC WX HVY RAIN AND TURB TOOK VECTOR S SE. LATER I RECHANGED DEST TO SEM APPROX 30 MI N OF SEM, HVY RAIN. SO MUCH THAT IT POURED INTO VENTS IN ACFT HVY TURB. ENG STARTED SPATTERING SEVERAL TIMES (LIKE IT WAS RUNNING ON 1 CYLINDER). I STARTED DSNDING FROM 4000 FT TO MAINTAIN AIRSPD. ADVISED ATC AND ASKED FOR NEAREST SUITABLE ARPT. MY GPS SAID A08. ATC SAID SAME A08. I PROCEEDED DIRECT, USED SQUELCH ON RADIO, TO LISTEN AS I GOT LOWER. CAME OUT OF CLOUDS APPROX 2500 FT, SAW FOREST THEN GRAVEL ROAD. I LANDED ON GRAVEL ROAD. NO INJURIES, NO DAMAGE. ACFT HAD 7.2 GALS OF FUEL REMAINING. LATER I FLEW (AFTER INSPECTING) TO A08.

## Synopsis

C172 PLT MAKES AN OFF FIELD LNDG.

**ACN: 714263**

## **Time / Day**

Date : 200610  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 3000

## **Environment**

Flight Conditions : VMC  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.ARTCC : ZZZ.ARTCC  
Operator.General Aviation : Personal  
Make Model Name : PA-28 Cherokee/Archer II/Dakota/Pillan/Warrior  
Operating Under FAR Part : Part 91  
Navigation In Use.Other : GPS  
Flight Phase.Cruise : Level

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Instrument  
Qualification.Pilot : Private  
Experience.Flight Time.Last 90 Days : 29  
Experience.Flight Time.Total : 581  
Experience.Flight Time.Type : 189  
ASRS Report : 714263

## **Person : 2**

Affiliation.Government : FAA  
Function.Controller : Radar

## **Events**

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Non Adherence : Clearance  
Anomaly.Other Spatial Deviation  
Independent Detector.Other.ControllerA : 2  
Resolatory Action.Controller : Issued New Clearance  
Resolatory Action.Flight Crew : Returned To Intended or Assigned Course

## **Assessments**

Problem Areas : Aircraft  
Problem Areas : Flight Crew Human Performance

## **Narrative**

I WAS FLYING THE ACFT BACK TO ITS HOME BASE AFTER INSTALLATION OF A NEW IFR GPS AND NEW RADIOS. I ENTERED MY CLRNC ON THE GND, BUT FAILED TO ACTIVATE THE FLT PLAN. THE CLRNC WAS ZZZ1 ZZZ2 AS FILED, BUT I STARTED OUT TOWARDS ZZZ2. ATC POINTED OUT THE HDG ERROR THAT I CREATED. CONTRIBUTING TO THIS ERROR WAS THE NOVELTY OF THE NEW GPS AND MY FAILURE TO DIAL IN THE VOR INTO THE SECOND RADIO OR USE MY HANDHELD GPS. THE CTLR'S VERBIAGE ON OUR INITIAL CALL-UP WAS NOT WHAT I WAS EXPECTING AND I WAS TIRED AFTER A LONG DAY GOING TO GET THE ACFT AND DOING THE REQUIRED TEST FLT FOR IFR CERTIFICATION. WHEN FILING THE FLT PLAN, I USED THE WRONG GMT TIME AND HAD TO REFILE ON THE GND BEFORE DEP FROM W75. ONCE I ACTIVATED THE FLT PLAN AND HEADED IN THE RIGHT DIRECTION), I WAS GIVEN DIRECT AND THE REST OF THE FLT WAS UNEVENTFUL. USING THE GPS SIMULATOR IS A BIT DIFFERENT BECAUSE IT IS NECESSARY TO ACTIVATE THE FLT PLAN TO GET THE SIMULATED ACFT POS TO UPDATE CORRECTLY.

## **Synopsis**

A PA28 PLT DEVIATED FROM HIS CLRED TRACK BECAUSE OF CONFUSION IN OPERATING HIS NEW GPS.

**ACN: 714248**

## **Time / Day**

Date : 200610

## **Place**

Locale Reference.Airport : UNV.Airport  
State Reference : PA

## **Person : 1**

Affiliation.Government : FAA  
Function.Controller : Radar  
Qualification.Controller : Radar  
Experience.Controller.Limited Radar : 23  
Experience.Controller.Non Radar : 24  
Experience.Controller.Radar : 22  
ASRS Report : 714248

## **Events**

Anomaly.Other Anomaly.Other  
Independent Detector.Other.ControllerA : 1  
Resolatory Action.None Taken : Anomaly Accepted

## **Assessments**

Problem Areas : FAA

## **Situations**

ATC Facility.Procedure Or Policy : ZNY.ARTCC

## **Narrative**

EXISTING RNAV/GPS RWY 6 APCH TO UNV ARPT CANCELLED AND NEW RNAV/GPS RWY 6 APCH RELEASED WITHOUT ANY PRIOR NOTIFICATION TO WORKFORCE. NEW APCH USES ALL NEW FIXES, NEW MINIMUMS AND NEW MISSED APCH PROC. CTLRS NOT MADE AWARE OF NEW PROC UNTIL PLT QUESTIONED WHICH FIX CLRED TO. POTENTIAL FOR OPERROR OR WORSE. THE OPPORTUNITY TO DISCOVER THIS CHANGE WAS HAMPERED BECAUSE BOTH THE OLD APCH AND THE NEW APCH WERE SIMILAR TYPES TO THE SAME RWY. AT THE PRESENT TIME FAA MGMNT AT ZNY TAKES NO STEPS TO ENSURE THAT ANY NEW APCH PROC IS BRIEFED TO THE CTLR WORKFORCE, OR THAT APCH PLATE BINDERS ARE KEPT UP TO DATE WITH CURRENT INFO. RECOMMENDATIONS: WHEN A NEW PROC IS DEVELOPED, OR AN EXISTING PROC IS CHANGED OR DISCONTINUED, FAA HEADQUARTERS SHOULD ENSURE THAT ALL AFFECTED FACILITIES ARE ALERTED TO THE CHANGE. IDEALLY, 4 WKS NOTICE OR MORE SHOULD BE PROVIDED TO ALLOW THE SCHEDULING OF ANY REQUIRED TRAINING. IN THE CASE OF ZNY, THE AIRSPACE AND PROCS OFFICE SHOULD BE THE CONTACT POINT AND WOULD COORDINATE ANY BRIEFINGS OR TRAINING. IN REF TO KEEPING APCH PLATE BINDERS UP TO DATE: WHEN NOAA PUBLISHES NEW US TERMINAL PROCS EACH

56 DAYS, A SUPVR SHOULD ENSURE THAT THE BINDERS REFLECT CURRENT INFO.  
THIS TASK COULD BE DELEGATED.

### **Synopsis**

ZNY CTLR EXPRESSED CONCERN THAT FACILITY MGMNT DID NOT PROVIDE  
UPDATED BRIEFINGS AND CHARTS FOR UNV RNAV APCH PROCS.



**ACN: 713406**

## **Time / Day**

Date : 200610  
Local Time Of Day : 1801 To 2400

## **Place**

Locale Reference.ATC Facility : ZKC.ARTCC  
State Reference : KS  
Altitude.MSL.Single Value : 7000

## **Environment**

Flight Conditions : IMC  
Light : Dusk

## **Aircraft : 1**

Controlling Facilities.ARTCC : ZKC.ARTCC  
Operator.General Aviation : Personal  
Make Model Name : Beechcraft, Beech Aircraft Corp Undifferentiated or Other Model  
Operating Under FAR Part : Part 91  
Navigation In Use.Other : GPS  
Navigation In Use.Other.VORTAC  
Flight Phase.Cruise : Level  
Route In Use.Enroute : On Vectors

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Instrument  
Qualification.Pilot : Private  
Experience.Flight Time.Last 90 Days : 16.1  
Experience.Flight Time.Total : 868.9  
Experience.Flight Time.Type : 347  
ASRS Report : 713406

## **Person : 2**

Affiliation.Government : FAA  
Function.Controller : Radar

## **Events**

Anomaly.Inflight Encounter : Weather  
Anomaly.Non Adherence : Clearance  
Anomaly.Other Anomaly  
Anomaly.Other Spatial Deviation  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.Controller : Provided Flight Assist  
Resolatory Action.Flight Crew : Diverted To Another Airport

Resolatory Action.Flight Crew : Regained Aircraft Control  
Resolatory Action.Flight Crew : Returned To Intended or Assigned Course

## Assessments

Problem Areas : Flight Crew Human Performance  
Problem Areas : Weather

## Narrative

ON THE MORNING OF OCT/MON/06, AS PART OF MY WORK, I HAD FLOWN FROM HYS TO TQK. WX AT TQK WAS IMC WITH APPROX 600 FT BROKEN, 1100 FT OVCST, 3-5 MI VISIBILITY. ENRTE AND APCH WERE UNEVENTFUL AND FLOWN WITHOUT AUTOPLT AS ON PREVIOUS FLTS IT HAD NOT BEEN WORKING PROPERLY. A GPS APCH TO RWY 35 WAS FLOWN SUCCESSFULLY. WX FOR THE RETURN FLT WAS RPTED AT TQK AS 600-700 FT BROKEN, 1100 FT OVCST AND 4 MI VISIBILITY. WX AT THE DEST (HYS) WAS RPTED 4000 FT OVCST WITH 10 MI VISIBILITY. ESTIMATED FLT TIME FOR THE TRIP WAS 35 MINS. I DEPARTED TQK ON AN IFR FLT PLAN, CONTACTED ZDV AND WAS HANDED OVER TO ZKC. THE FLT PROCEEDED UNEVENTFULLY IN IMC AT 7000 FT MSL NEBOUND. ZKC ASKED FOR MY PREFERRED APCH AND I REQUESTED THE ILS TO RWY 34 AT HYS. BTWN 30-35 MI OUT THE CTLR BEGAN VECTORING ME TO THE LOC. I HAD LOADED THE APCH INTO THE GPS AND WAS ATTEMPTING TO LOAD 'DIRECT TO' THE FIX WHEN THE ACFT ENTERED AN UNUSUAL ATTITUDE. AS I ATTEMPTED TO CORRECT THE SITUATION I BELIEVE I BECAME MORE AND MORE DISORIENTED. I NOTIFIED CTR THAT I WAS HAVING TROUBLE CTLING THE ACFT. AFTER SOME HARROWING MOMENTS WITH SIGNIFICANT CHANGES IN ALT, I WAS ABLE TO REGAIN STRAIGHT AND LEVEL FLT. I CONTINUED TO BE DISORIENTED. CTR INDICATED THAT I WAS WBOUND. IT APPEARED THAT MY HSI HAD BECOME UNUSABLE. CTR INDICATED THAT I WAS FLYING IN CIRCLES. CTR THEN PUT A CTLR ONE ON ONE WITH ME. USING ONLY THE MAGNETIC COMPASS FOR NAV THE CTLR GAVE ME VECTORS TO MY ALTERNATE, GREAT BEND (GBD). THE WX ACCORDING TO CTR WAS BETTER AT GBD. WITH THE HELP OF THE CTLR I WAS ABLE TO NAV TO AND LAND SUCCESSFULLY AT GBD. I BELIEVE THAT DISTR WHILE ATTEMPTING TO PROGRAM THE GPS LED TO UNUSUAL ATTITUDES AND LOSS OF CTL OF THE ACFT. SUBSEQUENT LOSS OF THE HSI AND IMC CONDITIONS LED TO FURTHER DISORIENTATION. SINGLE PLT IFR CAN BE DIFFICULT WITH MULTIPLE TASKS TO BE PERFORMED. I FEEL THAT IF I WOULD HAVE HAD A TRUSTWORTHY AUTOPLT AND HAD IT ENGAGED THAT I WOULD NOT HAVE GOTTEN INTO THE SITUATION THAT I DID. IN THE FUTURE I DO NOT PLAN TO FLY SINGLE PLT IFR WITHOUT A FULLY FUNCTIONAL AUTOPLT ON BOARD. I AM EXTREMELY THANKFUL FOR THE GOOD PEOPLE AT ZKC, WHOSE EXPERTISE AND PROFESSIONALISM HELPED ME OUT OF A VERY DIFFICULT SITUATION.

## Synopsis

PLT BECAME DISORIENTED IN IMC WHEN HE TRIED TO PROGRAM HIS GPS AND LOST CTL OF THE ACFT, TUMBLING THE GYROS. WITH THE AID OF ATC, HE DIVERTED TO A SUITABLE ARPT AND LANDED SAFELY.

**ACN: 713207**

## **Time / Day**

Date : 200610  
Local Time Of Day : 0601 To 1200

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 4000

## **Environment**

Flight Conditions : IMC  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.TRACON : ZZZ.TRACON  
Operator.General Aviation : Corporate  
Make Model Name : Super King Air 200 HDC  
Operating Under FAR Part : Part 91  
Flight Phase.Climbout : Initial

## **Component : 1**

Aircraft Component : Electrical Power

## **Person : 1**

Affiliation.Company : Corporate  
Function.Flight Crew : Captain  
Function.Oversight : PIC  
Qualification.Pilot : ATP  
Experience.Flight Time.Last 90 Days : 34  
Experience.Flight Time.Total : 3160  
Experience.Flight Time.Type : 210  
ASRS Report : 713207

## **Person : 2**

Affiliation.Company : Corporate  
Function.Flight Crew : First Officer  
Qualification.Pilot : ATP  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Experience.Flight Time.Last 90 Days : 175  
Experience.Flight Time.Total : 2750  
Experience.Flight Time.Type : 180  
ASRS Report : 713314

## **Events**

Anomaly.Non Adherence : Company Policies  
Anomaly.Non Adherence : FAR  
Anomaly.Non Adherence : Published Procedure  
Independent Detector.Other.Flight CrewA : 1  
Independent Detector.Other.Flight CrewB : 2  
Resolatory Action.Flight Crew : Declared Emergency  
Resolatory Action.Flight Crew : Regained Aircraft Control

## Assessments

Problem Areas : Flight Crew Human Performance

## Narrative

THE ACFT WAS STARTED AT HOME BASE ON A GPU. I ASKED FOR THE AFTER START CHKLST WHICH THE FO WENT THROUGH QUITE FAST, CHKNG OFF THE ITEMS AT HAND. AFTER TKOF, I CALLED FOR GEAR UP, AND WHILE THE GEAR RETRACTED, THE RED LIGHT IN THE HANDLE LIT UP. I TOLD THE FO THAT WE WILL LEVEL OFF AT OUR ASSIGNED 3000 FT AND 210 DEG HDG AND RUN THE CHKLST. WE LEVELED OFF AND SWITCHED TO DEP AS HE COMPLETED THE CHKLST. SINCE WE WERE IMC WELL BEFORE THIS TIME, I TOOK THE CLB TO 4000 FT AND DIRECT TO OUR DEST THINKING THAT WE CAN FIGURE OUT THE PROB, AND ASK FOR A RETURN IF NEEDED. AT THE TIME OF LEVELOFF THE RADIOS STARTED TO BECOME SCRATCHY AND MY FO COULD NO LONGER XMIT WITH DEP. I ENGAGED THE AUTOPLT ON A HDG THAT I THOUGHT WAS DIRECT AND AFTER A FEW MINS OF TRYING TO COMMUNICATE, WE DECIDED TO SQUAWK 7600. THE AUTOPLT KICKED OFF, SO I BEGAN TO HAND FLY AND NOTICED SOME FLAGS ON MY SIDE. I XFERRED CTLs TO MY FO KNOWING HIS SIDE WAS NOT ELECTRICAL. AT THAT TIME I NOTICED BOTH GENERATOR LIGHTS ON THE BOTTOM ANNUNCIATOR PANEL WERE LIT AND HE POINTED AT THE GENERATOR SWITCHES WHICH I TURNED ON. ATC TOLD US TO CLICK THE XMIT BUTTON TWICE IF WE WANTED TO RETURN, SO I DID. THEY TOLD US TO CLB TO 6000 FT AND TURN TO A HDG. SHORTLY AFTER TURNING ON THE GENERATORS, PWR WAS RESTORED AND WE WERE ABLE TO RETURN TO NORMAL CONDITIONS COMMUNICATING WITH ATC. WE WERE GIVEN VECTORS TO RETURN TO ZZZ. AFTER A FEW MINS OF DISCUSSING THE PROB THAT WAS NOW UNDER CTL, WE DECIDED TO ASK BACK TO OUR DEST. AGAIN WE WERE GIVEN DIRECT, SO I TURNED FOR THE GPS FOR THAT INFO. THE GPS SHOWED A HDG OF 030 DEGS AND DIDN'T SEEM CORRECT. ATC ASKED WHAT HDG WE WERE ON, APPARENTLY NOT GOING DIRECT. THE FO TOLD DEP THAT OUR GPS WAS INOP, BUT COULD USE THE VOR. DEP GAVE US A HDG AND SOON AFTER, WE WERE ABLE TO NAV WITHOUT FURTHER INCIDENT. THE MAIN CAUSE OF THIS PROB WAS NOT USING THE CORRECT CHKLST ON STARTUP AND BEING FULL AWARE OF THE INDICATIONS ON THE ANNUNCIATOR PANE. BY USING THE ENG STARTING EXTERNAL POWER CHKLST THE L AND R GENERATORS WOULD HAVE BEEN TURNED ON. I BELIEVE THE CONTRIBUTING FACTORS THAT DAY WERE WE HAVE NEVER FLOWN TOGETHER BEFORE, AND NOT BEING AS VIGILANT AS WE SHOULD HAVE BEEN. AFTER THIS FLT, THE FO AND I RECEIVED ADDITIONAL TRAINING, AND HAS TAUGHT ME TO MAKE SURE EACH ITEM ON THE CHKLST HAS BEEN SAID OUT LOUD AND UNDERSTOOD BY BOTH CREWMEMBERS.

## Synopsis

A BE20 CREW FAILED TO SELECT THE GENERATORS ON FOLLOWING A GPU START. AFTER TKOF AN EMER WAS DECLARED BECAUSE OF LOST COM AND ELECTRICAL PWR.

**ACN: 713033**

## **Time / Day**

Date : 200610  
Local Time Of Day : 0001 To 0600

## **Place**

Locale Reference.Airport : BWI.Airport  
State Reference : MD  
Altitude.MSL.Single Value : 3000

## **Environment**

Flight Conditions : VMC  
Light : Night

## **Aircraft : 1**

Controlling Facilities.Tower : BWI.Tower  
Operator.Common Carrier : Air Carrier  
Make Model Name : Commercial Fixed Wing  
Operating Under FAR Part : Part 121  
Navigation In Use.ILS.Localizer & Glide Slope : 10  
Flight Phase.Descent : Approach  
Route In Use.Approach : Visual

## **Person : 1**

Affiliation.Company : Air Carrier  
Function.Flight Crew : First Officer  
ASRS Report : 713033

## **Person : 2**

Affiliation.Company : Air Carrier  
Function.Flight Crew : Captain  
Function.Oversight : PIC

## **Person : 3**

Affiliation.Company : Air Carrier  
Function.Flight Crew : Second Officer

## **Person : 4**

Affiliation.Government : FAA  
Function.Controller : Local

## **Events**

Anomaly.Non Adherence : Published Procedure  
Independent Detector.Aircraft Equipment.Other Aircraft Equipment : ILS  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.Flight Crew : Overcame Equipment Problem  
Consequence.FAA : Reviewed Incident With Flight Crew

## **Assessments**

Problem Areas : ATC Human Performance

Problem Areas : Airport

Problem Areas : Navigational Facility

## **Narrative**

I, THE FO, WAS THE PF. WE WERE INBOUND FROM THE SW TO BWI. WE WERE CLRED DIRECT TO COLUM INTXN ON THE ILS 10 TO BWI. I HAD BRIEFED ILS 10 TO VISUAL, SO WE WERE PREPARED FOR THIS. WE HAD THE ILS 10 TUNED AND IDENTED BY MORSE CODE. WE ALSO HAD THE APCH PROGRAMMED WITH GPS ON THE ELECTRONIC MAP. I ALSO HAD THE RWY IN SIGHT. I LINED UP WITH THE RWY, AND IT APPEARED THAT WE HAD A LOC AND GS SIGNAL, AGAIN WITH A GOOD IDENT. ALL 3 OF US CONFIRMED I WAS HIGH AND THAT THE SIGNAL MUST BE ERRONEOUS. THE LOC SIGNAL WAS ALSO WAVERING WILDLY. WE DISREGARDED THE ILS AND CONFIRMED RWY IDENT WITH THE GPS. WE ALSO XCHKED OUR APCH PROFILE WITH ALT/DISTANCE. I PROCEEDED VISUALLY AND STABILIZED WITHOUT GS. AFTER LNDG WE QUESTIONED THE CTLR ABOUT THE ILS. HE SAID IT WAS TURNED ON THE OTHER RWY. WE TOLD HIM HE SHOULD HAVE NOTIFIED US OF THAT, AND HE SAID 'ROGER.' I FOUND THIS TO BE VERY DISCONCERTING BECAUSE I WOULD RATHER HAVE A FLAGGED APCH SIGNAL, RATHER THAN AN ERRONEOUS ONE. THIS IS TRUE ESPECIALLY WITH RECEIVING GLIDE PATH INFO AT NIGHT. THIS SEEMS LIKE A HAZARDOUS SITUATION, ESPECIALLY SINCE WE HAD A GOOD IDENT ON THE ILS. THE CTLR CLRED US TO AN ILS FIX TO SHOOT THE VISUAL. HE MADE NO MENTION TO US OF A NEGATIVE ILS AVAILABILITY ON THE RADIO, ATIS, OR OTHERWISE. THE APCH WENT FINE SINCE WE CAUGHT THE CTLR'S ERROR, AND XCHKED OUR APCH INFO. WE CONTINUED STABILIZED, VISUALLY, AND WITH GPS CONFIRMATION, BUT I WOULD HAVE MUCH RATHER HAD SOME GLIDE PATH GUIDANCE ON A NIGHTTIME VISUAL APCH.

## **Synopsis**

AN ACR PLT RPTS RECEIVING AN ERRATIC ILS SIGNAL ON BWI RWY 10 ILS. AFTER LNDG, UPON INQUIRING, ATC INFORMED THEM THAT THE ILS WAS ON RWY 28.

**ACN: 712643**

## **Time / Day**

Date : 200610  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 10000

## **Environment**

Flight Conditions : VMC  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.TRACON : ZZZ.TRACON  
Operator.General Aviation : Personal  
Make Model Name : PC-12  
Operating Under FAR Part : Part 91  
Navigation In Use.Other : FMS or FMC  
Navigation In Use.Other : GPS  
Flight Phase.Climbout : Intermediate Altitude  
Route In Use.Departure : On Vectors

## **Person : 1**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Experience.Flight Time.Last 90 Days : 20  
Experience.Flight Time.Total : 1700  
Experience.Flight Time.Type : 130  
ASRS Report : 712643

## **Person : 2**

Affiliation.Government : FAA  
Function.Controller : Departure

## **Events**

Anomaly.Non Adherence : Clearance  
Anomaly.Other Spatial Deviation  
Independent Detector.Other.ControllerA : 2  
Resolatory Action.Controller : Issued Advisory  
Resolatory Action.Controller : Issued New Clearance  
Resolatory Action.Flight Crew : Returned To Original Clearance  
Consequence.FAA : Reviewed Incident With Flight Crew



## **Assessments**

Problem Areas : Aircraft

Problem Areas : Flight Crew Human Performance

## **Narrative**

DURING THE CLB PHASE AFTER DEP, THE ACFT WAS CLRED TO FLY A HDG OF 030 DEGS TO JOIN AIRWAY. THE FLT DIRECTOR AND AUTOPLT WERE OPERATIONAL AND CONFIGURED TO INTERCEPT AND JOIN THE AIRWAY. A FEW MINS AFTER TURNING ON COURSE, THE CTLR QUERIED US TO CONFIRM WE WERE ON THE AIRWAY AS HE SHOWED 7-8 MI W. IT BECAME IMMEDIATELY OBVIOUS THAT THE GPS WAS PROGRAMMED FOR ZZZ DIRECT ZZZ1, RATHER THAN ZZZ1 - ZZZ2 DIRECT CRG, WHICH WAS THE CLRNC. THE CTLR RECLRED THE ACFT TO JOIN AIRWAY. IT DID NOT APPEAR THAT THIS INCIDENT HAD ANY EFFECT ON OTHER TFC. GREATER ATTN TO GPS PROGRAMMING IS REQUIRED TO HELP AVOID THIS IN THE FUTURE.

## **Synopsis**

PILATUS PC12 PLT HAS A TRACK-HDG DEV ENRTE.

**ACN: 712098**

## **Time / Day**

Date : 200610  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Airport : ONT.Airport  
State Reference : CA  
Altitude.MSL.Single Value : 6000

## **Environment**

Flight Conditions : Mixed  
Weather Elements.Other  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.TRACON : SCT.TRACON  
Operator.Common Carrier : Air Carrier  
Make Model Name : Regional Jet CL65, Undifferentiated or Other Model  
Operating Under FAR Part : Part 121  
Navigation In Use.Other : FMS or FMC  
Navigation In Use.Other : GPS  
Flight Phase.Climbout : Initial  
Route In Use.Departure.SID : POMONA

## **Component : 1**

Aircraft Component : FMS/FMC

## **Person : 1**

Affiliation.Company : Air Carrier  
Function.Flight Crew : First Officer  
Qualification.Pilot : CFI  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Experience.Flight Time.Last 90 Days : 210  
Experience.Flight Time.Total : 3300  
Experience.Flight Time.Type : 1600  
ASRS Report : 712098

## **Person : 2**

Affiliation.Company : Air Carrier  
Function.Flight Crew : Captain  
Function.Oversight : PIC

## **Person : 3**

Affiliation.Government : FAA  
Function.Controller : Departure

## Events

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Non Adherence : Clearance  
Anomaly.Non Adherence : Published Procedure  
Anomaly.Other Spatial Deviation  
Independent Detector.Other.ControllerA : 3  
Resolatory Action.Controller : Issued New Clearance  
Resolatory Action.Controller : Provided Flight Assist  
Resolatory Action.Flight Crew : Returned To Intended or Assigned Course  
Consequence.FAA : Reviewed Incident With Flight Crew

## Assessments

Problem Areas : Aircraft  
Problem Areas : Flight Crew Human Performance  
Problem Areas : Weather

## Narrative

DURING A DEP PROC OFF OF RWY 26R, WE WERE FLYING THE NEW PROC, A HDG OF 255 DEGS TO INTERCEPT THE 143 DEG RADIAL INBOUND TO THE POMONA VOR. BECAUSE OUR ACFT HAS THE DEP PROC IN THE FMS WE ARE ABLE TO NAV IN FMS MODE INFLT. WE VERIFIED BEFORE DEP IT WAS IN THE COMPUTER DATABASE PROPERLY AND CURRENT WHICH IT WAS. WE DEPARTED OFF OF RWY 26R AROUND XA15 LCL AND HAD THE AUTOPLT ON AFTER TKOF. THERE WAS A DIRECT XWIND THAT WAS FROM THE S ABOUT 15 KTS. I WOULD SAY THAT ABOUT 1 MIN AFTER WE HAD THE AUTOPLT ON WE HAD A MESSAGE THAT OUR GPS HAD LOST POS AND WAS TRYING TO GET IT BACK, SO WE CONTINUED TO FLY THE DEP HDG TO TRY TO INTERCEPT THE 143 DEG INBOUND TO POM VOR BUT ATC CONTACTED US DURING MY TURN INBOUND TO THE VOR AND ASKED US WHERE WE WERE GOING. WE TOLD THEM WE WERE ON THE POMONA 7 DEP AND WERE TRYING TO INTERCEPT THE 143 DEG INBOUND AND TOLD HIM WE HAD A GPS FAILURE AND DUE TO THE WIND REQUESTED A HDG THAT WOULD HAVE A BETTER INTERCEPT. HE THEN GAVE US A HDG OF 290 DEGS WHICH WAS THE SAME HDG THAT WE WERE ON. ATC TOLD US THAT WE WERE 2 MI N OFF COURSE AND THAT WE HAD TO CALL A NUMBER ON THE GND. AFTER WE HIT THE POM VOR WE FLEW THE DEP PROC IN FMS NAV AGAIN BECAUSE WE GOT OUR GPS BACK. ON THE GND WE EXPLAINED THE SITUATION TO ATC AND TOLD THEM THAT WE DID NOT UNDERSTAND THE POSSIBLE PLTDEV BECAUSE ATC HAD GIVEN US THE SAME HDG THAT WE WERE FLYING AND DID NOT UNDERSTAND WHAT WENT WRONG. ATC TOLD US THAT IT WAS A NEW PROC AND THAT A LOT OF CRJ'S WERE HAVING PROBS WITH THE PROC DUE TO THE FMS FAILURES. ATC ALSO TOLD US THAT WE WERE ABOUT 2-3 MI N OFF COURSE BEFORE WE INTERCEPTED THE 143 DEG RADIAL TO POMONA. WE TOLD HIM THAT THE DIRECT WIND FROM THE S TO THE N ABOUT 15 KTS WOULD HAVE BLOWN US ABOUT THAT FAR N AND THAT THEY SHOULD LOOK INTO WIND DRIFT DURING THE PROC. THEY TOLD US NOT TO WORRY ABOUT IT. I STILL AM CONCERNED WHAT WE DID WRONG BESIDES BEING 2-3 MI N OFF COURSE DUE TO THE WINDS.

## Synopsis

A CL65 FLT CREW DEVIATED FROM THE CHARTED DEP PROC WHEN THEIR FMS DROPPED THE GPS SIGNAL.