

CEN23MA034

OPERATIONAL FACTORS/HUMAN PERFORMANCE

Attachment 24

NASA ASRS Results for "See and Avoid"

November 22, 2023



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ACN: 1828079 (1 of 25)

Time / Day

Date : 202107
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : E10.TRACON
State Reference : CA
Relative Position.Angle.Radial : 330
Relative Position.Distance.Nautical Miles : 70
Altitude.MSL.Single Value : 8500

Environment

Flight Conditions : Mixed
Weather Elements / Visibility : Rain
Weather Elements / Visibility : Turbulence
Weather Elements / Visibility.Visibility : 2
Light : Daylight
Ceiling.Single Value : 10000

Aircraft

Reference : X
ATC / Advisory.TRACON : E10
Aircraft Operator : Corporate
Make Model Name : Medium Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Test Flight / Demonstration
Flight Phase : Descent
Route In Use : None
Airspace.Class E : E10

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Corporate
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 5400
Experience.Flight Crew.Last 90 Days : 46
Experience.Flight Crew.Type : 470
ASRS Report Number.Accession Number : 1828079
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Human Factors : Workload
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Airspace Violation : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : VFR In IMC
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Aircraft Terrain Warning
Detector.Person : Flight Crew
Miss Distance.Horizontal : 2000
Miss Distance.Vertical : 500
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Weather
Primary Problem : Human Factors

Narrative: 1

[We were] operating in a military restricted area where range rules [were] to remain in VMC. Due to increasing cloud coverage, we had to knock off our planned flight early and began preparing for return to base (ZZZ). The PIC was managing the descent while I managed the checklists. We leveled at 10,000 ft. MSL to stay below cloud deck. We were flying southbound with mountainous terrain to the west. Cloud coverage was along the entire route ahead of us, and a hot restricted area was to the east (with cloud coverage). As a crew, we discussed the forward visibility which we estimated to be about 30 NM from our present location. It looked like some rain showers ahead down the valley, and cloudy conditions over the mountains (with maybe a little better clearance in the immediate direction). On board, radar was not indicating anything appreciable returns, and weather showed just a few pixels of green. As we approached the weather, the PIC said we should turn right as he thought the weather looked better towards the mountains. I stated that the weather ahead looked better in my opinion, as it looked like we would go under some of the rain showers in the valley. PIC said he thought it was IMC ahead, and started turning right towards the mountains. I reiterated that going down the valley was our best option, especially due to the mountainous terrain to our right. He mentioned he has flown in this area hundreds of times and he knew this would be better. I again reiterated that not only were we turning towards mountains, but there was a National Park over there which required us to stay 3,000 ft. above the terrain, and would limit how low we could go to **avoid** weather. I estimated that going down the valley could have got us as low as 5,000 ft. MSL safely (about 2,500 ft. AGL). PIC stated that going down the valley would be impossible for us to stay VMC and maintained the heading towards the mountains. I told him that I did not **see** what he was **seeing**, and he stated it would work fine. As we approached the first ridge the PIC climbed to 11,000 ft. MSL to stay safely above the terrain (although I estimate we needed to be about 13,000 ft. MSL to **avoid** National Park overflight). As we continued south, we could **see** that it was closing in and that the bases were getting lower, so the PIC started stepping down in altitude to approximately 8,500 ft. MSL. At one point, the PIC was getting nervous, and asked me if we should turn around. As I was super focused on trying to stay ahead of the PIC, I told him whatever you do, do not turn right, as the Terrain display was showing a 10,200 ft. peak while we were descending through about 9,500 ft. MSL. The visibility was becoming much reduced and we entered some light rain showers. As we were navigating mountainous terrain in visibility that were maybe 1 NM at times, the GPWS alerted us to "TERRAIN, TERRAIN" followed immediately by "PULL UP, PULL UP, PULL UP." I immediately called climb-climb-climb. The PIC's only response was to pull back on the yoke (as opposed to our training which calls for disconnect AP (Auto Pilot)/AT (Auto Throttles), pitch to PLI (Pitch Limit Indicator) and max power). I put my hand on the throttles and started to push up about the same time the AT's responded to increasing power. As the climb commenced the Terrain Warning silenced, however we did encounter solid IMC. Shortly after we broke through the line of showers, [we] proceeded back to the airfield [in] VFR. There were multiple opportunities to prevent this from happening. The first and foremost that comes to mind is that as soon as we disagreed on the course of action, we should have entered a hold to discuss it. This would have given us time to regroup and may have resulted in a better decision. Additionally (in hindsight), we could have requested an IFR flight plan back to the landing airfield per the range rules. However, we were so focused on remaining VMC that we overlooked that option, probably due to task saturation. Personalities and organizational culture are also paramount to conducting safe flight operations, and these subjects will be presented to leadership as a result of this incident.

Synopsis

Corporate aircraft pilot reported flying VFR and entering IMC over mountainous terrain resulting in GPWS alert and evasive action taken in order to return to VFR flight.

ACN: 1567233 (2 of 25)

Time / Day

Date : 201808
Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.ARTCC
State Reference : US
Altitude.MSL.Single Value : 26000

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.Center : ZZZ
Aircraft Operator : Corporate
Make Model Name : Learjet 60
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Test Flight / Demonstration
Flight Phase : Descent
Route In Use : Vectors
Airspace.Class A : ZZZ

Component

Aircraft Component : Autopilot
Aircraft Reference : X
Problem : Malfunctioning

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Corporate
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 7000
Experience.Flight Crew.Last 90 Days : 50
Experience.Flight Crew.Type : 500
ASRS Report Number.Accession Number : 1567233
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Returned To Clearance
Result.Flight Crew : Regained Aircraft Control
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Aircraft
Primary Problem : Aircraft

Narrative: 1

I was conducting a stall test flight on a Lear 60 between 15,000 and 17,000 ft MSL. This was a test flight with flight crew only on board following extensive maintenance prior to the aircraft being returned to service. At this time we were operating VFR with Flight Following from Approach. During this time we encountered some issues with the autopilot. The LH side autopilot would not operate properly due to the ALTS (Altitude Select) indicator light being inoperative and therefore we were unable to verify its status. We also noted a red trim message would post occasionally on the autopilot panel with the autopilot engaged, indicating the autopilot servos may not be trimming properly. We did not **see** this anomaly on the RH side autopilot so we decided to continue with our plan to go to high altitude using only the RH autopilot. After completing the stalls, I activated our IFR flight plan and we climbed to FL410. Note also that we filed non-RVSM.

After completing our systems observations at FL410, we requested a descent and return to [departure airport]. We had been using the autopilot while in Class A airspace with no issues. While descending to an assigned altitude of FL260 with an autopilot connected descent in SPD (Speed) mode at an approximate airspeed of 280 KIAS, we observed the autopilot slowly pulling the nose upwards to begin leveling off, as expected. Suddenly, the autopilot disconnected and the nose went violently downward with a subsequent rapid increase in airspeed. The control yoke snapped almost full forward.

The thrust levers were already at idle so I deployed the spoilers and pulled carefully on the control yoke while monitoring airspeed. It went into overspeed as I began leveling the aircraft. I retracted the spoilers at this point since they create more nose down force when above Vmo/Mmo. I continued to pull the nose upward carefully to **avoid** over stressing the aircraft. I got the airplane back to level flight and began assessing our situation when ATC called and instructed an immediate climb, which is when I first noted the altitude deviation...we were at about FL240 when we got the airplane back under control. We immediately climbed back to FL260 and did not engage the autopilot for the remainder of the flight. It is likely the red trim light had posted during the descent indicating the autopilot was having trouble with the pitch trim but we did not notice it.

At this time I considered reporting the malfunction to the controller, but since he had already called us I knew we would be having a discussion back on the ground regarding the altitude deviation. Therefore, since we were back in control of the airplane I elected not to advise ATC. During the subsequent phone call, I provided them with details of the deviation.

In retrospect, the autopilot anomalies observed at low altitude were more serious than originally thought even though the RH autopilot **seemed** to be functioning normally. In the future, I will give more consideration to possible system malfunctions and plan the remainder of the flight accordingly. I will also keep ATC advised whenever an issue or malfunction develops.

Synopsis

Lear 60 test pilot reported a 2000 ft altitude excursion due to an autopilot pitch malfunction.

ACN: 1292801 (3 of 25)

Time / Day

Date : 201509
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.AGL.Single Value : 0

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 10
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.CTAF : ZZZ
Aircraft Operator : Corporate
Make Model Name : Caravan 208B
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Test Flight / Demonstration
Flight Phase : Landing
Route In Use : Visual Approach

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Corporate
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 810
Experience.Flight Crew.Last 90 Days : 68
Experience.Flight Crew.Type : 160

ASRS Report Number.Accession Number : 1292801
Human Factors : Situational Awareness

Events

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Anomaly.Ground Incursion : Runway
Detector.Person : Ground Personnel
When Detected : Aircraft In Service At Gate
Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Airport
Contributing Factors / Situations : Human Factors
Primary Problem : Human Factors

Narrative: 1

Conducted normal visual approach to land at Runway 17 in CAVU conditions. Crew had advised Approach several times during en-route of intent to land, with no mention from Approach Control of possible runway closure at [the destination airport]. Normal un-controlled traffic pattern radio transmissions were made during the approach to land. In the landing flare, pilot flying noticed reddish-orange painted patch of grass in shape of small x just prior to runway end, but no yellow x, unusual markings, barriers, signs, equipment, or personnel on the runway itself. Just prior to touchdown, pilot flying asked pilot not flying if the runway was closed; neither pilot flying nor pilot not flying in right seat was aware of a possible runway closure. Completed landing on runway 17 and taxied clear onto ramp area.

Pilot flying visited with airport personnel who happened to be present (airport is normally unattended) and learned that the runway was closed for re-surfacing and re-painting. Airport personnel said another aircraft had departed earlier in the day with no issues to the new paving and that they were primarily waiting for some of the new paint striping on the runway to completely cure and the pavement was still wet on the turn-around taxi area at the north end of the runway. Airport personnel said aircraft was ok to takeoff to complete return to [departure airport] as planned if aircraft didn't taxi over the wet pavement on the turn-around area at the north end of the runway. Aircraft was back-taxied on the runway and care was taken to **avoid** the turn-around as requested and departed runway 17 without incident.

Possible corrective actions to prevent incident:

1. Would recommend higher visibility markings actually on the runway itself or perhaps barriers or cones rather than just painting the grass at each end as the markings were difficult to **see** until in the landing flare and since they were not on the actual runway, the flight crew was unsure of the intent of the markings.
2. A post flight check of the NOTAMs revealed that the runway was indeed closed. A thorough pre-flight check of the NOTAMs was overlooked prior to the flight and would have caused a change in the intended landing site before departing.

Synopsis

C208B pilot reported landing on a closed runway that was marked with a small orange X in the grass. Reporter stated he missed the NOTAM.

ACN: 1008476 (4 of 25)

Time / Day

Date : 201205
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : JAX.TRACON
State Reference : FL
Altitude.MSL.Single Value : 15000

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 9999

Aircraft

Reference : X
ATC / Advisory.TRACON : JAX
Aircraft Operator : Military

Make Model Name : Fighting Falcon F16
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Test Flight / Demonstration
Flight Phase : Initial Climb
Route In Use : Direct
Airspace.Class E : JAX

Person

Reference : 1
Location In Aircraft : Flight Deck
Reporter Organization : Military
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 5500
Experience.Flight Crew.Type : 5500
ASRS Report Number.Accession Number : 1008476
Human Factors : Situational Awareness
Human Factors : Workload
Human Factors : Human-Machine Interface

Events

Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Returned To Clearance

Assessments

Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Aircraft
Primary Problem : Human Factors

Narrative: 1

This event occurred on the "First Flight" of a modified/new series military aircraft, the QF-16, a drone version of the venerable F-16. The flight went very well and the aircraft flew great; however, either a misunderstanding or miscommunication caused a problem and potential violation with ATC.

The flight was a Functional Check Flight (FCF) requiring an unrestricted quick climb to 15,000 FT MSL. The pilot has a number of parameters to carefully monitor during FCF flights. In accordance with Boeing procedures and Military Material Command directives, a chase aircraft was required for this test. Our chase aircraft was a QF-4, an aircraft with significantly inferior performance compared with the QF-16. Techniques to best utilize the QF-4 as a safety chase were discussed during both ground training as well as during the mission briefing. Due to the tremendous performance differences, I decided to utilize an "Airborne Pickup."

This procedure requires the chase aircraft to takeoff first, fly an overhead pattern and order brake release for the test aircraft. By doing this the disadvantaged QF-4 already has some airspeed and the pilot can remain focused on the chase task. One of my major concerns is that neither the QF-16 nor the QF-4 have radar, TCAS, or data link systems of any kind installed. **"See and Avoid"** along with ATC flight following, IFR clearances, etc., are our best and safest means of **avoiding** other aircraft. During the FCF the pilot must spend considerable time looking both inside the cockpit at various instruments as well as outside looking at various flight control surfaces. This means very little time and attention is available for clearing the flight path; therefore, ATC provides an invaluable service to our program. In fact in my opinion, this program could not be safely accomplished without ATC services.

The instructions that I "heard" from the Tower were "Cleared for takeoff, cleared for unrestricted climb on runway heading to 15,000 FT." I also thought I was to maintain runway heading until reaching 15,000 FT and then proceed on the flight plan route. During the takeoff roll the QF-16 performance was outstanding and perhaps a little better than I am used to given the sea level elevation and a clean aircraft. I typically fly the F-16 at 2,300 FT pressure altitude and with a centerline fuel tank or wing tanks giving the aircraft much more drag, weight, and thus, less performance than today.

In any event, I did not initiate the pull down from near vertical early enough to stop at 15,000 MSL and went above 15,000 FT momentarily to almost 16,000 FT and then immediately corrected. Given the tremendous climb rate I actually only considered this a minor deviation. In this instance there were no other aircraft in the vicinity, but there could have been. For that reason we need to ensure that ATC fully understands what the unrestricted climb is and that they do not clear us for the climb if there are any potential traffic conflicts.

The flight was very successful and uneventful; however I received a radio call from base directing me to call Approach on landing. I asked one of our pilot controllers/duty pilots to call ATC for me and inform them that I did get their message and

that I would call at the first opportunity. He informed me that the Controller he spoke with was very upset about the potential deviation as well as with our [LOA-Letter of Agreement] for operating the QF-16. I called after mission debrief and a new Controller was on duty. He suggested that I contact the supervisor another day.

The bottom line is that when a human is dealing with multiple tasks or concerns at the same time, it is easier to make a mistake. The lesson learned for me is slow down and ensure you understand your clearance exactly. I know it's an old lesson but again it **seems** that communication is one of the most difficult things that we do.

Synopsis

The pilot of a "manned mission" of the first QF-16 UAV was unable to pitch over from a maximum performance takeoff in a timely fashion to **avoid** exceeding his cleared altitude of 15,000 FT MSL by nearly 1,000 FT.

ACN: 824544 (5 of 25)

Time / Day

Date : 200902
Local Time Of Day : 0601-1200

Place

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

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft : 1

Reference : X
ATC / Advisory.TRACON : ZZZ.TRACON
Aircraft Operator.Other
Make Model Name : Gulfstream II (G1159)
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Test Flight / Demonstration
Nav In Use : FMS Or FMC
Flight Phase : Climb
Airspace.Class D : ZZZ.D

Aircraft : 2

Reference : Y
ATC / Advisory.TRACON : ZZZ.TRACON
Aircraft Operator.Other
Make Model Name : Falcon 20FJF/20C/20D/20E/20F
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission.Other
Flight Phase : Climb
Airspace.Class D : ZZZ.D

Person : 1

Reference : 1
Location Of Person.Aircraft : X
Reporter Organization.Other
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Flight Instructor
Experience.Flight Crew.Total : 13000
Experience.Flight Crew.Last 90 Days : 50
Experience.Flight Crew.Type : 2500
ASRS Report Number.Accession Number : 824544

Person : 2

Reference : 2
Location Of Person.Aircraft : Y
Reporter Organization.Other
Function.Flight Crew : Captain
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 3700
Experience.Flight Crew.Last 90 Days : 50
Experience.Flight Crew.Type : 100
ASRS Report Number.Accession Number : 824847

Person : 3

Reference : 3
Location Of Person.Aircraft : X
Reporter Organization.Other
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Flight Instructor
Experience.Flight Crew.Total : 13200
Experience.Flight Crew.Last 90 Days : 20
Experience.Flight Crew.Type : 1100
ASRS Report Number.Accession Number : 825000

Events

Anomaly.Conflict : Airborne Conflict
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
Result.Flight Crew : Became Reoriented
Result.Flight Crew : Took Evasive Action
Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Human Factors
Primary Problem : Human Factors

Narrative: 1

Flight of 2 aircraft departed on an R&D mission. Lead aircraft was a Falcon 20, Wingman was a G-2. The Falcon departed first, the G-2 second using a 15 second in trail procedure, intending to join on the Falcon's right wing. During climb, prior to join-up, ATC issued a heading change from 290 degrees to 070 degrees. Lead aircraft speed was 220 KIAS. As Lead turned, closure rate increased and Wingman lost sight of Lead. Wingman initiated lost wingman procedure, i.e., right turn to a divergent heading, maintaining a lower altitude and maintaining '**see** and **avoid**' for other aircraft. Efforts were made to regain visual contact with Lead to accomplish a rejoin. ATC became aware of the situation and had Wingman squawk a separate transponder code. In retrospect, notifying ATC in a more timely manner would have been desirable. In the future, more emphasis will be given to more thoroughly brief flight crews in all aspects of formation flight.

Synopsis

Flight of two, a Gulfstream II and a Falcon 20, lost visual contact shortly after takeoff and executed a lost wingman procedure which compromised their IFR clearance. ATC assigned a separate transponder code to the second aircraft and assisted in rejoining the flight.

ACN: 801019 (6 of 25)

Time / Day

Date : 200808
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.AGL.Single Value : 300

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 20
Light : Daylight

Aircraft : 1

Reference : X
ATC / Advisory.UNICOM : ZZZ
Aircraft Operator : Personal
Make Model Name : Amateur/Home Built/Experimental
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Test Flight / Demonstration
Flight Phase : Initial Approach
Route In Use : Visual Approach
Airspace.Class G : ZZZ.G

Aircraft : 2

Reference : Y
ATC / Advisory.UNICOM : ZZZ
Aircraft Operator : Corporate
Make Model Name : Helicopter
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : VFR
Flight Phase : Initial Approach
Route In Use : Visual Approach
Airspace.Class G : ZZZ.G

Person : 1

Reference : 1
Location Of Person.Aircraft : X
Reporter Organization : Personal
Function.Flight Crew : Single Pilot
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 13000
Experience.Flight Crew.Last 90 Days : 50
Experience.Flight Crew.Type : 50
ASRS Report Number.Accession Number : 801019

Person : 2

Reference : 2
Reporter Organization.Other
Function.Ground Personnel : FBO Personnel

Events

Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Other / Unknown
Detector.Person : Other Person
Miss Distance.Horizontal : 200
Miss Distance.Vertical : 100
Result.Flight Crew : Took Evasive Action

Assessments

Contributing Factors / Situations : Human Factors
Primary Problem : Human Factors

Narrative: 1

FOLLOWING A SHORT VFR TEST FLT, I BEGAN ENTRY INTO THE VFR TFC PATTERN AT ZZZ. CONDITIONS WERE CLR UNLIMITED VISIBILITY WITH LIGHT WINDS FAVORING RWY XX. I ENTERED THE NORMAL L-HAND TFC PATTERN AT PATTERN ALT ON THE UPWIND LEG. PROGRESSING THROUGH THE PATTERN, I MADE 4 TA'S ON THE CTAF OF 122.8. THERE WERE NO OTHER ADVISORIES HEARD ON THE FREQ OR OTHER ACFT **SEEN** WHEN SEARCHING THE LCL AREA. I WAS ALSO MONITORING THE APCH CTL FREQ AND DID HEAR AT LEAST 1 ATTEMPT BY THEM TO CONTACT A HELI APPARENTLY TRYING TO DISCONTINUE RADAR SVC. THERE WAS NO RESPONSE HEARD FROM THE HELI AND NO LOCATION WAS NOTED. ON SHORT FINAL APCH AT ABOUT 1/2 MI FROM THE END OF THE RWY AND APPROX 400 FT AGL, THE FBO ATTENDANT

BROADCAST, 'DO YOU **SEE** THE HELI?' I RESPONDED 'NO, WHERE?' THE ATTENDANT CORRECTLY IDENTED THE LOCATION 'OFF YOUR R WING.' AT THIS POINT, I OBSERVED THE HELI EMERGE FROM THE BLIND AREA BELOW MY R WING FLYING R TO L ACROSS THE APCH END OF THE RWY AT APPROX 100 FT AGL. I TOOK EVASIVE ACTION INITIATING A CLBING R TURN TO **AVOID** THE HELI AND ABORTING THE LNDG APCH. AFTER LNDG, IN DISCUSSIONS WITH THE HELI PLT, HE ACKNOWLEDGED NOT BEING ON THE CTAF, NOT MAKING ANY TA'S AND APOLOGIZED FOR HIS ACTIONS. SEVERAL GND WITNESSES OBSERVED THE HELI FLYING AT HIGH SPD AND LOW ALT WBOUND NEAR THE ARPT SOUTHERN BOUNDARY AND MAKING A RAPID TURN OVER THE ARPT BOUNDARY AND PROCEEDING DIRECTLY TO A RAMP ON THE W SIDE OF THE ARPT. I CREDIT THE ALERT RESPONSE OF THE FBO ATTENDANT WITH THE PREVENTION OF A POSSIBLE MIDAIR COLLISION.

Synopsis

EXPERIMENTAL ACFT PILOT REPORTS NMAC WITH HELICOPTER ON SHORT FINAL.

ACN: 701294 (7 of 25)

Time / Day

Date : 200606
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.AGL.Single Value : 500

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 5000
RVR.Single Value : 60

Aircraft : 1

Reference : X
ATC / Advisory.Tower : ZZZ.Tower
Aircraft Operator : Personal
Make Model Name : Small Aircraft, Low Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Test Flight / Demonstration
Flight Phase : Initial Approach
Route In Use.Other
Airspace.Class D : ZZZ.D

Aircraft : 2

Reference : Y
ATC / Advisory.Tower : ZZZ.Tower
Aircraft Operator : Personal
Make Model Name : Cessna 150
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Mission : Training
Flight Phase : Initial Approach
Route In Use.Other
Airspace.Class D : ZZZ.D

Person : 1

Reference : 1
Location Of Person.Aircraft : X
Reporter Organization : Personal
Function.Flight Crew : Single Pilot
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Flight Engineer

Experience.Flight Crew.Total : 19900
Experience.Flight Crew.Last 90 Days : 60
Experience.Flight Crew.Type : 150
ASRS Report Number.Accession Number : 701294

Person : 2

Reference : 2
Location Of Person.Aircraft : Y
Reporter Organization : Personal
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying

Person : 3

Reference : 3
Location Of Person.Facility : ZZZ.Tower
Reporter Organization : Government
Function.Air Traffic Control : Local

Events

Anomaly.Conflict : NMAC
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Person : Flight Crew
Miss Distance.Horizontal : 100
Miss Distance.Vertical : 0
Result.Flight Crew : Took Evasive Action

Assessments

Contributing Factors / Situations : Airport
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Aircraft
Primary Problem : Human Factors

Narrative: 1

ACFT #1 INSTRUCTED TO FOLLOW ANOTHER ACFT ON OPPOSITE DOWNWIND WHICH REQUIRED ACFT #1 TO EXTEND DOWNWIND. ACFT #1 CLRED FOR TOUCH-AND-GO. ACFT #2 CLRED TOUCH-AND-GO TO FOLLOW US. ACFT #2 ACKNOWLEDGED, BUT INSTEAD TURNED EARLY BASE AND WAS ON A COLLISION COURSE AND CLOSING FAST WHEN ACFT #1 TOOK EVASIVE ACTION BY TURNING R TO **AVOID** COLLISION. IT IS MY OPINION THAT PLT OF ACFT #2 DID NOT **SEE** ACFT #1. HAD ACFT #1 NOT TAKEN EVASIVE ACTION, A COLLISION WOULD HAVE OCCURRED. CONTRIBUTING FACTORS: TWR CTLR WAS NEW AND BEING TRAINED. ACFT #2 PLT VERY INEXPERIENCED AND LATER ACKNOWLEDGED HE THOUGHT HE WAS FOLLOWING A DIFFERENT ACFT. TWR CTLR DID NOT **SEE** ACFT #2 DEVIATE FROM CLRNC UNTIL ABOUT THE SAME TIME ACFT #1 DID ABRUPT EVASIVE MANEUVER. ACFT #1 PLT DID NOT **SEE** ACFT #2 UNTIL ABRUPT EVASIVE ACTION NECESSARY. (SPECULATION -- HAD ACFT #1 BEEN A CESSNA, A COLLISION WOULD HAVE OCCURRED DUE TO OBSCURATION BY WINDOW FRAME AND HIGH WING). ACFT #2 PLT TOLD TO FOLLOW 'KATANA' -- FAILED TO MAKE POSITIVE IDENT OF 'KATANA.' ACFT #2 WAS A COLOR WHICH MADE IT DIFFICULT TO **SEE** ON A CLOUDY/PARTLY CLOUDY DAY. CORRECTIVE ACTIONS: MAINTAIN SITUATIONAL AWARENESS AND INCLUDE SCAN TO CHK FOR CONFLICTING TFC IN RANGE OF 8-12-4 O'CLOCK POS IN TFC PATTERN WHEN ON FINAL REGARDLESS IF AT A TWR CTLED ARPT. SUGGEST FLT INSTRUCTORS ENSURE STUDENTS CAN IDENT DIFFERENT ACFT TYPES. SUGGEST ALL PLTS QUESTION THEIR SEQUENCE IF IN DOUBT. ENCOURAGE DEVELOPMENT OF LOW COST TCAS AND CAPSTONE EQUIP. HAVE CTLRS MONITOR ALL TFC MORE CLOSELY. EMPHASIZE '**SEE** AND **AVOID**.'

Synopsis

A DA20 PLT AT MRI EXPERIENCED AN NMAC WITH A C150 PLT WHO MISIDENTED OTHER TFC INSTEAD OF THE RPTED TFC WHILE IN THE LNDG PATTERN.

ACN: 604137 (8 of 25)

Time / Day

Date : 200401

Place

Locale Reference.Airport : CMA.Airport
State Reference : CA
Relative Position.Distance.Nautical Miles : 3
Altitude.MSL.Single Value : 800

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft : 1

Reference : X
ATC / Advisory.Tower : CMA.Tower
Aircraft Operator : Corporate
Make Model Name : Gulfstream IV / G350 / G450
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Test Flight / Demonstration
Flight Phase : Initial Approach
Route In Use : Visual Approach
Airspace.Class D : CMA.D

Aircraft : 2

Reference : Y
ATC / Advisory.Tower : CMA.Tower
Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer
Flight Phase : Takeoff / Launch
Airspace.Class D : CMA.D

Aircraft : 3

Reference : Z
ATC / Advisory.Tower : CMA.Tower
Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer
Flight Phase : Initial Approach
Route In Use.Other
Airspace.Class D : CMA.D

Component

Aircraft Component : TCAS Equipment
Aircraft Reference : X
Problem : Improperly Operated

Person : 1

Reference : 1
Location Of Person.Aircraft : X
Reporter Organization : Corporate
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 14500
Experience.Flight Crew.Last 90 Days : 200
Experience.Flight Crew.Type : 7500
ASRS Report Number.Accession Number : 604137

Person : 2

Reference : 2
Location Of Person.Aircraft : X
Reporter Organization : Corporate
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Not Flying

Person : 3

Reference : 3
Location Of Person.Aircraft : Y
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot

Person : 4

Reference : 4
Location Of Person.Aircraft : Z
Function.Flight Crew : Pilot Flying

Person : 5

Reference : 5
Location Of Person.Facility : CMA.Tower
Reporter Organization : Government
Function.Air Traffic Control : Local

Events

Anomaly.Conflict : Airborne Conflict
Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Other / Unknown
Anomaly.Deviation / Discrepancy - Procedural : FAR
Detector.Automation : Aircraft RA
Detector.Person : Flight Crew
Miss Distance.Horizontal : 500
Miss Distance.Vertical : 0
Result.Flight Crew : Took Evasive Action
Result.Air Traffic Control : Issued New Clearance

Assessments

Contributing Factors / Situations : Airport
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Environment - Non Weather Related
Primary Problem : Human Factors

Narrative: 1

UPON RETURNING TO THE ARPT ENVIRONMENT FROM THE COMPLETION OF A MAINT TEST FLT, THE CTL TWR WAS CONTACTED APPROX 7 MI NW OF THE ARPT FOR LNDG INSTRUCTIONS. INITIAL PLAN WAS FOR THE ACFT TO MAKE A L BASE ENTRY FOR RWY 8. CONTINUING THE DSCNT FOR THIS APCH, THE TWR LATER CALLED BACK AND ADVISED THAT SLOWER TFC WOULD CONFLICT AND COULD WE TURN E AND ENTER OVERHEAD THE ARPT FOR A R DOWNWIND ARR. AT THIS TIME, THE ACFT WAS APPROX 3 MI FROM THE ARPT AT APPROX 1500 FT MSL. AS WE TURNED L (E) AND CONTINUED ON DOWN TO THE PATTERN ALT OF 1100 FT MSL, THE TCASII BEGAN TO SHOW TFC BOTH ABOVE AND BELOW US THAT MIGHT BE A CONFLICT. AT THIS SAME TIME, THE LCL TWR CTLR ADVISED US OF LOWER TFC CLBING OUT ON A L DOWNWIND DEP. THIS WOULD PUT THE ACFT ON A HDG TOWARD OUR ACFT. AT THIS TIME, WE DID NOT **SEE** THIS ACFT VISUALLY. WHILE THIS ACFT TARGET WAS DEPICTED ON THE TCASII, THE FLT CREW DID NOT HAVE A VISUAL CONTACT ON IT. SIMULTANEOUS CONFLICTING COMMANDS FROM THE TCASII ADVISED US TO FIRST 'CLB, CLB' AND THEN 'DSND, DSND.' NOT HAVING A VISUAL ON ANY OF THE CONFLICTING ACFT, IT WAS NOTED THAT THERE WERE MORE TARGETS ABOVE OUR ACFT THAN BELOW. NOTING THAT THE LOWER TFC WAS CLBING AND WITHIN 200 FT OF OUR ALT, I (AS PIC OF THE FLT) ELECTED TO DSND TO GET BELOW THIS ACFT RAPIDLY. IN DOING SO, WE WENT BELOW THE PRESCRIBED PATTERN ALT BY ABOUT 300 FT. AT THIS TIME, WE WERE ALSO OVER HIGHER TERRAIN THAT EXISTS NEAR THE ARPT AND THAT PROBABLY HAD US WITHIN 500-600 FT OF THE TERRAIN AT THAT TIME. AS SOON AS THE CONFLICT WAS RESOLVED, WE CLBED BACK UP TO THE REQUESTED PATTERN ALT AND COMPLETED THE OVERHEAD ENTRY TO THE ARPT AND SUBSEQUENT LNDG. AFTER LNDG, THE TWR ADVISED THAT THEY APPRECIATED OUR HELP IN THEIR TFC PATTERN. I REPLIED THAT WE WERE GLAD TO HELP, BUT THAT THEY MIGHT GET PHONE CALLS FROM RESIDENCE IN THE NEARBY NEIGHBORHOOD THAT WE HAD TO OVERFLY TO MAKE THIS ALL WORK OUT. THE LCL CTLR INDICATED THAT THEY DO INDEED GET CALLS, BUT THAT WE HAD DONE WHAT WAS REQUIRED AND NO HARM SHOULD BEFALL US. IT **SEEMS** THAT SOMEONE DID TAKE OFFENSE AND CALLED THE LCL FSDO TO RPT US AS A LOW FLYING ACFT. SINCE WE ARE A JET, THEY ARE TRYING TO INVOKE 91.515. WE HAVE BEEN TRYING TO FIGURE OUT WHERE WE MIGHT HAVE ERRED IN THIS SIT. PLENTY OF TIME WAS GIVEN THE TWR FOR NOTICE OF OUR ARR. WE FOLLOWED THEIR INSTRUCTIONS AND AT THE SAME TIME TRIED TO THINK AHEAD OF A TCASII THAT GAVE CONFLICTING INFO. THIS IS NOT THE FIRST TIME A TCASII SETUP HAS DONE THAT. THE QUESTION IS, 'WHAT DO YOU DO WHEN IT HAPPENS?' MY DECISION WAS TO DSND THE ACFT BECAUSE I KNEW I COULD GET BELOW THE CONFLICT TFC FASTER AND WHAT I PERCEIVED TO BE A SAFER FASHION THAN HAD I CLBED UP TO **AVOID** THE TFC. I KNEW WHERE THIS TFC WAS AND WHERE IT WAS GOING. I DID NOT KNOW THAT FOR THE OTHER ACFT ABOVE ME. I ALSO KNEW THAT I DIDN'T HAVE TO DSND FAR TO CLR THE TFC, AND THAT I WOULD STILL HAVE ADEQUATE TERRAIN CLRNC. COULD WE HAVE ENTERED FROM A DIFFERENT LOCATION? CERTAINLY. BUT WE HAD BEEN IN A POS TO MAKE A SAFE AND EASY ENTRY INTO THE TFC FLOW AND WHEN THAT DIDN'T WORK OUT, WE DID OUR BEST TO **AVOID** CONFLICTING TFC AND STAY AWAY FROM THE NOISE SENSITIVE AREAS. IN THE FUTURE, I WILL ADVISE ALL OUR PLTS THAT THIS AREA CAN BE VERY BUSY AND TO CONTACT THE TWR WELL IN ADVANCE TO **SEE** WHAT THEIR PREFERENCE WILL BE FOR OUR TFC PATTERN ENTRY.

Synopsis

GLF-4 CREW HAD A TCASII RA ENTERING THE PATTERN AT CMA.

ACN: 588663 (9 of 25)

Time / Day

Date : 200307
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : PAO.Airport
State Reference : CA
Relative Position.Distance.Nautical Miles : 2
Altitude.MSL.Single Value : 800

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 6
Weather Elements / Visibility.Other
Light : Daylight

Aircraft : 1

Reference : X
ATC / Advisory.Tower : PAO.Tower
Aircraft Operator : Personal
Make Model Name : Small Aircraft
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Test Flight / Demonstration
Flight Phase : Initial Approach
Route In Use : Visual Approach
Airspace.Class D : PAO.D

Aircraft : 2

Reference : Y
ATC / Advisory.Tower : PAO.Tower
Make Model Name : Skyhawk 172/Cutlass 172
Crew Size.Number Of Crew : 1
Flight Phase : Initial Approach
Airspace.Class D : PAO.D

Aircraft : 3

Reference : Z
ATC / Advisory.Tower : PAO.Tower
Make Model Name : Small Aircraft, Low Wing, 2 Eng, Retractable Gear
Flight Phase : Initial Approach
Route In Use.Other
Airspace.Class D : PAO.D

Person : 1

Reference : 1
Location Of Person.Aircraft : X
Reporter Organization : Personal
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Private
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 660
Experience.Flight Crew.Last 90 Days : 35
Experience.Flight Crew.Type : 350
ASRS Report Number.Accession Number : 588663

Person : 2

Reference : 2
Location Of Person.Aircraft : X
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot

Person : 3

Reference : 3
Location Of Person.Aircraft : Z
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot

Person : 4

Reference : 4
Location Of Person.Facility : PAO.Tower
Reporter Organization : Government
Function.Air Traffic Control : Local

Events

Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
Miss Distance.Horizontal : 0
Miss Distance.Vertical : 100
Result.Flight Crew : Took Evasive Action
Result.Air Traffic Control : Issued New Clearance

Assessments

Contributing Factors / Situations : Environment - Non Weather Related
Contributing Factors / Situations : Human Factors
Primary Problem : Human Factors

Narrative: 1

NEAR MISS ON BASE/FINAL RWY 31 PAO ARPT. VISIBILITY WAS BETTER THAN 6 MI, BUT THERE WAS LOW BROWN HAZE THAT WAS AFFECTING VISIBILITY. PATTERN WAS OBVIOUSLY BUSY, SO I PROCEEDED INBOUND SLOWLY AFTER RECEIVING INSTRUCTIONS 'R TFC RWY 31, FOLLOW CESSNA.' I RPTED NO TFC IN SIGHT, REPLY: 'OVER THE BIRD HOUSE' (DOWNWIND 500 FT PAST RWY 31 NUMBERS). STILL NOT IN SIGHT, SLOWED TO MINIMUM SPD TO **AVOID** OVERTAKING. CALLED AGAIN, REPLY: 'WIDE DOWNWIND OVER YACHT HARBOR.' I DID NOT SPOT MY TFC OVER THE ABANDONED HARBOR, BUT DID SPOT A TAN PLANE THAT APPEARED TO BE TURNING BASE OVER THE CURRENTLY OPERATING MARINA LESS THAN 1 MI FURTHER DOWNWIND. 'IS MY TFC TURNING BASE NOW?' 'AFFIRMATIVE, IN SIGHT.' SOMEWHERE AFTER THIS CALL, THERE WAS A SHIFT CHANGE AT THE TWR. I BEGAN MY BASE TURN AS THE TAN ACFT PASSED ABEAM ON FINAL. I NOTED THAT IT WAS A LOW WING TWIN, BUT DID NOT CALL TWR TO ASK IF THEY MEANT 'TWIN CESSNA.' AS I TURNED ONTO FINAL, THERE WAS A RED AND WHITE HIGH WING C172 MANEUVERING DIRECTLY UNDER ME, PERHAPS LESS THAN 100 FT. I EXECUTED AN EMER CLB TO **AVOID** COLLISION. THE C172 HAD BEEN ON A WIDE DOWNWIND AND I NEVER SPOTTED HIM. HE MUST HAVE TURNED BACK AND FLOWN UNDER ME AS I WAS ON DOWNWIND. A) I AM A LCL PLT, HOWEVER, EVEN I GOT CONFUSED WHEN I SAW NO TFC OVER TE NO-LONGER-PRESENT PALO ALTO BOAT HARBOR, BUT DID **SEE** TFC NEAR THE SHORELINE MARINA FURTHER DOWNWIND. THIS TERMINOLOGY MIGHT BE AMENDED TO 'ABANDONED HARBOR' OR 'OLD HARBOR' OR REPLACED WITH A REF TO SOMETHING ELSE (SAME THING, TO A LESSER EXTENT WITH 'BIRD HOUSE'). B) MY CONCENTRATION ON SLOW FLT IN THE SR22 WAS ABSOLUTELY A CONTRIBUTING DISTR. 3) THIS COULD HAVE BEEN **AVOIDED** IF I HAD ASKED 'IS IT THE TAN ACFT TURNING R BASE OVER SHORELINE PARK HARBOR?' INSTEAD OF 'IS MY TFC TURNING BASE NOW?' D) IN AN INFORMAL DISCUSSION WITH THE CTLR, HE SAID 'WHEN YOU SAY YOU HAVE THE TFC IN SIGHT, WE ASSUME YOU'VE GOT IT IN SIGHT.' TRUE, BUT WHAT TFC? IF HE HAD SAID RED CESSNA IT WOULD HAVE BEEN CLR. E) THE SHIFT CHANGE OR GENERAL TWR WORKLOAD MAY HAVE BEEN A CONTRIBUTING FACTOR, HOWEVER I UNDERSTAND THE RESPONSIBILITY FOR SEPARATION RELIES WITH ME.

Synopsis

NMAC IN THE PAO TFC PATTERN ON A HAZY DAY WHEN TFC SIGHTED IS NOT THE TFC CALLED OUT.

ACN: 494873 (10 of 25)

Time / Day

Date : 200012
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : VRB.Airport
State Reference : FL
Relative Position.Distance.Nautical Miles : 2
Altitude.AGL.Single Value : 1000

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 3000

Aircraft : 1

Reference : X
ATC / Advisory.Tower : VRB.Tower
Aircraft Operator.Other
Make Model Name : PA-32 Cherokee Six/Lance/Saratoga/6X
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Test Flight / Demonstration
Route In Use.Other
Airspace.Class D : VRB.D

Aircraft : 2

Reference : Y
ATC / Advisory.Tower : VRB.Tower
Aircraft Operator : Personal
Make Model Name : PA-28 Cherokee/Archer/Dakota/Pillan/Warrior
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Training
Route In Use.Other
Airspace.Class D : VRB.D

Person : 1

Reference : 1
Location Of Person.Aircraft : X
Reporter Organization.Other
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 9300
Experience.Flight Crew.Last 90 Days : 180
Experience.Flight Crew.Type : 200
ASRS Report Number.Accession Number : 494873

Person : 2

Reference : 2
Location Of Person.Aircraft : Y
Reporter Organization : Personal
Function.Flight Crew : Single Pilot
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Private

Person : 3

Reference : 3
Location Of Person.Facility : VRB.Tower
Reporter Organization : Government
Function.Air Traffic Control : Local
Qualification.Air Traffic Control : Fully Certified

Events

Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Air Traffic Control
Miss Distance.Horizontal : 200
Miss Distance.Vertical : 200
Result.Flight Crew : Took Evasive Action
Result.Air Traffic Control : Issued New Clearance

Assessments

Contributing Factors / Situations : Human Factors
Primary Problem : Ambiguous

Narrative: 1

ARRIVING AT VRB'S CTLED ARPT FROM THE S, TWR INSTRUCTED ME TO SLOW DOWN AND RPT A 2 MI L BASE TO RWY 4, AS THERE WERE OTHER ACFT IN THE PATTERN. WHEN I WAS ABOUT TO RPT THE 2 MI BASE, TWR ADVISED THAT I WAS APCHING AN OPPOSITE DIRECTION ACFT. I ASKED WHETHER I SHOULD TURN OUT TO THE E TO **AVOID** THE OTHER ACFT SINCE I DIDN'T **SEE** IT. SHE RESPONDED THAT I SHOULD PULL UP AND TURN E, WHICH I DID. AFTER TALKING WITH THE

CTLR BY PHONE, WE REALIZED 2 THINGS: THE OTHER ACFT WAS ON AN EXCEPTIONALLY WIDE PATTERN, AND THAT HER IDEA OF THE LOCATION OF A 2 MI BASE AND MINE WERE 2 DIFFERENT LOCATIONS. TO PREVENT A RECURRENCE, TWR SHOULD DISCOURAGE EXCEPTIONALLY WIDE PATTERNS, AND I WILL RPT FARTHER OUT ON BASE IF THERE IS NOT TOO MUCH VERBAL TFC. OFTEN, AT THIS BUSY ARPT, RADIO CONVERSATIONS ARE BLOCKED BY THE LARGE NUMBER OF ACFT TFC. ANOTHER VITAL NEED AT THIS ARPT IS RADAR THAT TWR PERSONNEL CAN USE TO SEPARATE TFC.

Synopsis

PLT IN PA32 LNDG VRB HAS NMAC WITH A PA28 OPPOSITE DIRECTION IN THE PATTERN. BOTH ACFT UNDER TWR CTL.

ACN: 432892 (11 of 25)

Time / Day

Date : 199904
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : JWN.Airport
State Reference : TN
Altitude.AGL.Single Value : 100

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 6500

Aircraft : 1

Reference : X
ATC / Advisory.UNICOM : JWN
Aircraft Operator : Air Carrier
Make Model Name : Helicopter
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 135
Flight Plan : None
Mission : Test Flight / Demonstration
Flight Phase : Initial Approach
Route In Use : Visual Approach
Airspace.Class G : JWN.G

Aircraft : 2

Reference : Y
ATC / Advisory.UNICOM : JWN
Make Model Name : Cessna 140
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Flight Phase : Initial Approach
Route In Use : VFR Route
Route In Use : Visual Approach

Person : 1

Reference : 1
Location Of Person.Aircraft : X
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 5200
Experience.Flight Crew.Last 90 Days : 40
Experience.Flight Crew.Type : 650
ASRS Report Number.Accession Number : 432892

Person : 2

Reference : 2
Location Of Person.Aircraft : Y

Function.Flight Crew : Single Pilot
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Private

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : FAR
Detector.Person : Flight Crew
Miss Distance.Horizontal : 300
Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Airport
Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Aircraft
Primary Problem : Human Factors

Narrative: 1

DURING AN OPERATIONAL CHK FLT, WHILE ON APCH TO RWY, I DID NOT **SEE** AN AIRPLANE THAT WAS OBVIOUSLY ON SHORT FINAL. I MADE MY APCH TO THE SOD ADJACENT TO RWY. AT ABOUT 100 FT AGL, I LOOKED TO MY L AND SAW THIS AIRPLANE PASS BY MY ACFT WITHIN ABOUT 300 FT. I WAS MONITORING UNICOM FREQ AND HEARD NO RADIO CALLS. I WAS ALSO FLYING L TFC PATTERN AS TO **AVOID** THE FLOW OF FIXED WING ACFT. THIS RWY USES R TFC NORMALLY. NEITHER ACFT MADE ANY EVASIVE MANEUVERS. I THINK THIS WAS A CASE OF A HIGH WING ACFT NOT BEING ABLE TO **SEE** UP, AND A HELI NOT HAVING GOOD VISIBILITY **SEEING** DOWN ON APCH. I WAS ALSO BUSY MONITORING ENG INSTS AS AN ENG COMPONENT WAS BEING CHKED.

Synopsis

BK117 HELI PLT HAS NMAC ON APCH TO JWN.

ACN: 408049 (12 of 25)

Time / Day

Date : 199807
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ICT
State Reference : KS
Relative Position.Angle.Radial : 40
Relative Position.Distance.Nautical Miles : 8
Altitude.MSL.Single Value : 4500

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 6
Light : Daylight

Aircraft

ATC / Advisory.TRACON : ICT
Aircraft Operator.Other
Make Model Name : Citation I (C500)
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Test Flight / Demonstration
Flight Phase : Cruise
Flight Phase : Cruise
Route In Use : Vectors
Airspace.Class E : ICT

Component : 1

Aircraft Component : Indicating and Warning - Fuel System
Aircraft Reference : X
Problem : Malfunctioning

Component : 2

Aircraft Component : Fuel Quantity-Pressure Indication
Aircraft Reference : X
Problem : Malfunctioning

Person : 1

Reference : 1
Reporter Organization.Other
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 2637
Experience.Flight Crew.Last 90 Days : 146
Experience.Flight Crew.Type : 265
ASRS Report Number.Accession Number : 408049

Person : 2

Reference : 2
Reporter Organization.Other
Function.Flight Crew : First Officer
Qualification.Flight Crew : Private
Experience.Flight Crew.Total : 300
Experience.Flight Crew.Last 90 Days : 90
Experience.Flight Crew.Type : 15
ASRS Report Number.Accession Number : 407644

Person : 3

Reference : 3
Reporter Organization : Government
Function.Air Traffic Control : Approach
Qualification.Air Traffic Control : Fully Certified

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Conflict : Ground Conflict, Critical
Anomaly.Other
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
Result.General : Declared Emergency
Result.Aircraft : Aircraft Damaged

Assessments

Primary Problem : Aircraft

Narrative: 1

WE WERE NEAR THE END OF COMPLETING RVSM TRAILING CONE ENGINEERING FLT TESTING/DATA COLLECTION AT 5000 FT, AND THE LOW LEVEL FUEL ANNUNCIATORS BEGAN TO FLICKER. THE BOOST PUMPS WERE TURNED ON PER THE ABNORMAL PROCS. WE COMPLETED THE LAST CONDITION. INITIALLY WE THOUGHT WE HAD AN ANNUNCIATOR PROB WITH APPROX 1600 LBS OF FUEL SHOWING ON THE GAUGES, AND BECAUSE OF THE EXCELLENT RELIABILITY I HAVE EXPERIENCED ON CITATION JETS FUEL QUANTITY SYS. ALSO, THE FLT TEST ENGINEER DISCUSSED HAVING THIS DISCREPANCY ON THE PREVIOUS 2 FLTS. I WAS ON VACATION FOR 2 WKS PRIOR TO THIS FLT. TKOF FUEL WAS INDICATING 2100 LBS. THEN THE ANNUNCIATORS CAME ON STEADY (+/-185 15 LBS, PER DESIGN). I DID NOT LIKE THE CONDITION OF THE ACFT, AND DECIDED TO STOP TESTING AND RETURN TO ICT (35 NM NW OF ICT). WICHITA APCH CTL ASSIGNED HDG 100 DEGS AND 4500 FT, VECTOR FOR SEQUENCING TO RWY 19L. ENRTE TO ICT, THE L ENG FLAMED OUT. WICHITA APCH CTL WAS ADVISED. I WAS INDICATING APPROX 195 KTS. I WAS PREPARING MYSELF AND THE ACFT FOR THE R ENG TO FLAME OUT, AND IT DID APPROX 30 SECONDS AFTER THE L. AN EMER WAS DECLARED. A SPD OF APPROX 180 KTS WAS USED TO GLIDE. THE K-96 HWY APPEARED TO BE THE BEST PLACE TO LAND THE ACFT CONSIDERING WIND AND THE FACT THAT THE FIELDS HAD BEEN SOAKED WITH HVY RAINS FOR THE PAST 2 DAYS. I ALIGNED THE ACFT WITH THE ROADWAY AND TRIED TO FIGURE A WAY TO FIT INTO THE FLOW OF TFC. I LOWERED THE LNDG GEAR, AND IT CAME DOWN AND LOCKED, WITH THE WINDMILLING ENGS DRIVING THE HYD PUMPS. ZERO FLAPS WAS UTILIZED TO TRY AND TOUCH DOWN BEYOND A SET OF PWR LINES, AND BEFORE ANOTHER SET OF PWR LINES. AS THE LNDG POINT WAS DRAWING NEAR, I REALIZED THAT I WAS GOING TO LAND ON A VEHICLE. THIS WAS THE ONLY TFC THAT I HAD CONCERN FOR. THE ROADWAY AHEAD OF THIS VEHICLE WAS CLR. I FLEW THE ACFT OVER THE MEDIAN TO **AVOID** THE VEHICLE AND FIGURING THAT THE OPERATOR WOULD **SEE** ME AND SLOW OR STOP. I REASONED, ONCE I PASSED THE VEHICLE, SHE WOULD STOP. ONCE PAST THAT VEHICLE, I MANEUVERED THE ACFT TO ALIGN WITH THE ROADWAY. I TOUCHED DOWN AT STICK SHAKER, WITH A LATERAL ACCELERATION TO THE R. I GOT THE ACFT LATERAL ACCELERATION STOPPED, BUT I WAS OFF THE ROADWAY TO THE R SIDE. I MANEUVERED THE ACFT BACK UP AND L ONTO THE ROADWAY. THERE WAS A CULVERT AND A BRIDGE

APCHING VERY QUICKLY, DIRECTLY AHEAD OF THE ACFT, WHILE I WAS OFF THE ROADWAY. I STRUCK THREE SIDE ROAD DELINEATOR MARKERS (REFLECTORS) DURING THE TIME I WAS OFF THE ROADWAY. I CLERED THE OBSTRUCTIONS ON THE CULVERT/BRIDGE AREA, CTRED ON THE ROADWAY, AND SLOWLY BROUGHT THE ACFT TO A STOP. TO **AVOID** BEING HIT FROM BEHIND, I SLOWLY BROUGHT THE ACFT TO A STOP UNDER NORMAL BRAKING. FROM THE INITIAL TOUCHDOWN TO THE STOP WAS APPROX 1 MI. I INADVERTENTLY GOT THE R MAIN LNDG GEAR OFF THE ROADWAY, TRYING TO KEEP FROM BLOCKING THE ENTIRE SEBOUND LANES OF K-96. THE FUEL QUANTITY INDICATED ABOUT 500-550 LBS IN EACH FUEL TANK, 1000-1100 LBS TOTAL FUEL AT REST ON THE HWY. MINIMAL DAMAGE WAS SUSTAINED TO THE ACFT NOSE RADOME AND R WING LEADING EDGE, FROM THE ROAD DELINEATORS. A SMALL AMOUNT OF DIRT/MUD WAS THROWN INTO THE R ENG INLET. THE FUEL GAUGING SYS WAS INACCURATE. THE SYS WAS AN EXPERIMENTAL FUEL GAUGING SYS, WITHOUT THE MEANS TO ANNUNCIATE SYS DIAGNOSTIC FAULTS. A PRODUCTION ACFT WOULD HAVE ANNUNCIATED THE FAULTS. 3 FUEL QUANTITY PROBES WERE FOUND TO BE FAULTED, POST INCIDENT INVESTIGATION. I WAS NOT BRIEFED OF THE FUEL ANOMALY, NOR WAS THE CONFLICTING ANNUNCIATIONS WRITTEN UP BY THE PREVIOUS CREWS FOR 2 FLTS. I WOULD BE MORE THAN HAPPY TO DISCUSS THIS, FOR THE PURPOSES OF ENHANCING ACFT SAFETY. ONE CONCLUSION IS THAT YOU MUST TRUST THE WORST INDICATION/ANNUNCIATOR, WHEN CONFLICTING INFO IS BEING PRESENTED IN THE COCKPIT.

Synopsis

FLC OF CITATION 525 ON A TEST FLT HAS LOW LEVEL FUEL ANNUNCIATORS FLICKER. HEADING BACK TO THE ARPT, THE R ENG FLAMES OUT, THEN THE L. OFF ARPT LNDG IS MADE ON A HWY.

ACN: 395505 (13 of 25)

Time / Day

Date : 199802
Local Time Of Day : 0001-0600

Place

Locale Reference.ATC Facility : ABQ
State Reference : NM
Relative Position.Angle.Radial : 150
Relative Position.Distance.Nautical Miles : 90
Altitude.MSL.Single Value : 14000

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 50
Light : Night

Aircraft

ATC / Advisory.Military Facility : HDX
Aircraft Operator : Government
Make Model Name : Falcon 20FJF/20C/20D/20E/20F
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Test Flight / Demonstration
Flight Phase : Cruise
Flight Phase : Cruise
Airspace.Special Use : HMN

Component : 1

Aircraft Component : Turbine Engine
Aircraft Reference : X
Problem : Malfunctioning

Component : 2

Aircraft Component : Compressor Blade
Aircraft Reference : X
Problem : Malfunctioning

Person : 1

Reference : 1
Reporter Organization : Government
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 6000

Experience.Flight Crew.Last 90 Days : 30
Experience.Flight Crew.Type : 200
ASRS Report Number.Accession Number : 395505

Person : 2

Reference : 2
Reporter Organization : Government
Function.Flight Crew : First Officer
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Commercial

Person : 3

Reference : 3
Reporter Organization : Military
Qualification.Air Traffic Control : Fully Certified

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Inflight Event / Encounter : VFR In IMC
Anomaly.Other
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
Result.Aircraft : Aircraft Damaged

Assessments

Primary Problem : Weather

Narrative: 1

XX00 AM WE WERE CONDUCTING A DATA FLT AT HOLLOMAN AFB WHITE SAND MISSILE RANGE IN NM. THE WX BRIEF WAS RPTED TO BE CLR SKIES UNLIMITED VISIBILITY. ON DEPARTING HMN WE COULD MAKE OUT THE LIGHTS OF ABQ, NM, SOME 90+ MI TO THE NW. DURING OUR CLB TO THE N PART OF THE RANGE WHERE WE WERE CONDUCTING OUR TEST, WE FOUND A VERY SCATTERED LAYER OF CLOUDS AT 12000 FT MSL. ONCE ON STATION AT 14000 FT MSL WE CONDUCTED OUR SCHEDULED RUNS WHICH WERE N AND S IN NATURE. DURING THIS TIME THE PNF OCCASIONALLY CHKED TO MAKE SURE WE WERE NOT IN ANY CLOUDS BY TURNING ON THE LNDG LIGHTS. WE COULD **SEE** SOME SCATTERED CLOUDS BELOW US AT APPROX 12000 FT MSL. ON THE EXECUTION OF THE THIRD RUN, THE ACFT WAS SBOUND WHEN I INITIATED A PROC TURN (90-270 DEGS) TO REVERSE COURSE. THE ACFT ENTERED A CLOUD FORMATION FOR THE DURATION OF THE TURN WHICH LASTED APPROX 2 MINS. (MOONLESS NIGHT) AFTER THE ACFT EXITED THE CLOUDS, VISUAL INSPECTION WITH A FLASHLIGHT ON THE WINDSHIELD REVEALED ICE ACCUMULATION. I INSTRUCTED THE PNF TO SELECT #2 ENG INTAKE HEAT AND ENG IGNITORS ENGAGED TO ELIMINATE THE POSSIBILITY OF INTAKE ICE. SHORTLY THEREAFTER A LOUD NOISE WAS HEARD AND ENG INSTS INDICATED THAT THE #2 ENG HAD INGESTED ICE. I BEGAN A CLB TO 20000 FT MSL TO OBTAIN A SAFE ALT SHOULD A FLAMEOUT OCCUR AND TO **AVOID** ANY FURTHER ICING CONDITIONS. THE #2 ENG WAS NORMAL INDICATING AT THIS TIME AND I INSTRUCTED THE #1 ENG INTAKE HEAT AND AIRFRAME ANTI-ICE ON WITH THE INSTRUCTION THAT WE WERE RETURNING TO HMN (HOLLOMAN ATC). A VISUAL DSCNT WAS MADE TO HOLLOMAN WITHOUT FURTHER INCIDENT. UPON VISUAL INSPECTION AFTER SHUTTING DOWN, BOTH ENGS HAD SUFFERED ICE INGESTION CAUSING DAMAGE TO THE COMPRESSOR BLADES AND AFT FAN BLADES OF THE FALCON 20 JET (GE ENGS). THERE WAS 1 INCH OF CLR ICE ON OUR ANTENNA AND NOSE CONE OF THE ACFT. WHAT HAD BEEN A CLR NIGHT HAD BROUGHT A CLOUD THAT CONTAINED CLR ICING TO THE ACFT IN THE MATTER OF MINS. WE MADE A 90-270 DEG TURN TO GET OUT OF THE CLOUD AND BACK ON COURSE WHICH HAD BEEN CLR OF CLOUDS ON TOP OF A SCATTERED AREA. CONTRIBUTING FACTORS WAS THAT THE FAA MANDATED THAT WE CONDUCT THESE TESTS AT NIGHT. A CLOUD FORMATION FORMED THAT NOBODY HAD PREDICTED AND WE FLEW INTO IT. **SEE** AND **AVOID** PRACTICE WAS VERY DIFFICULT AT BEST.

Synopsis

DA20 GOV FLC ON DATA GATHERING FLT TURNS INTO CLOUDS AND ACCUMULATES ICE. INTAKE HEAT AND ENG IGNITING ACTIVATED AND A LOUD NOISE WAS HEARD INDICATING ICE INGESTION. MISSION CANCELED.

ACN: 355218 (14 of 25)

Time / Day

Date : 199612
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : DPA
State Reference : IL
Relative Position.Distance.Nautical Miles : 1
Altitude.MSL.Single Value : 1100

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft : 1

ATC / Advisory.Tower : DPA
Aircraft Operator : Personal
Make Model Name : PA-28 Cherokee/Archer/Dakota/Pillan/Warrior
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Test Flight / Demonstration
Flight Phase : Initial Approach
Airspace.Class D : DPA

Aircraft : 2

Aircraft Operator : Personal
Make Model Name : Small Aircraft, Low Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew : 1
Mission : Training
Flight Phase : Landing
Flight Phase : Landing

Person : 1

Reference : 1
Reporter Organization.Other
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 5400
Experience.Flight Crew.Last 90 Days : 80
Experience.Flight Crew.Type : 400
ASRS Report Number.Accession Number : 355218

Person : 2

Reference : 2
Reporter Organization.Other
Function.Flight Crew : Single Pilot
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Private

Person : 3

Reference : 3
Reporter Organization : Government
Function.Air Traffic Control : Local
Qualification.Air Traffic Control : Fully Certified

Events

Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : FAR
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
Miss Distance.Horizontal : 50
Miss Distance.Vertical : 0
Result.General : None Reported / Taken
Result.Flight Crew : Took Evasive Action

Assessments

Contributing Factors / Situations : Procedure
Primary Problem : Human Factors

Narrative: 1

NMAC ON SHORT FINAL WITH AIRPLANE THAT TURNED BASE AND APCHED FROM OUR L SIDE WHILE WE WERE DSNDING TO LAND. CTLR NEVER CALLED OUT ANY TFC OR ISSUED WARNINGS TO ANY ACFT ON THE FREQ AT THIS TIME. THE OTHER ACFT MADE A STEEP L TURN TO **AVOID** HITTING OUR L WING WHILE WE WERE DSNDING TO LAND AFTER BEING CLRED TO DO SO BY THE TWR. CTLR HAD IDENTED US INCORRECTLY SEVERAL TIMES WHILE WE WERE IN THE PATTERN AFTER

MAKING US AND ANOTHER ACFT MAKE 360 DEG TURN WHILE ON DOWNWIND FOR NO APPARENT REASON AT ALL. **SEE** ATTACHED LETTER THAT I HAVE ATTACHED. THIS WAS SENT TO THE LCL FSDO.

Synopsis

AN SMA ON FINAL HAS AN NMAC WITH ANOTHER LIGHT ACFT TURNING FINAL. EVASIVE ACTION WAS TAKEN BY THE OTHER ACFT. RPTR BLAMES CTLR FOR NOT ISSUING TFC.

ACN: 307109 (15 of 25)

Time / Day

Date : 199506
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : CRQ
State Reference : CA
Altitude.MSL.Single Value : 4700

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 10
Light : Daylight

Aircraft : 1

ATC / Advisory.Tower : CRQ
Aircraft Operator : Personal
Make Model Name : PA-28R Cherokee Arrow All Series
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Test Flight / Demonstration
Flight Phase : Cruise
Flight Phase : Cruise
Airspace.Class E : CRQ

Aircraft : 2

Aircraft Operator : Military
Make Model Name : Helicopter
Crew Size.Number Of Crew : 1
Operating Under FAR Part.Other
Flight Plan : VFR
Mission : Training
Flight Phase : Cruise
Flight Phase : Cruise

Person : 1

Reference : 1
Reporter Organization.Other
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Private
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 550
Experience.Flight Crew.Last 90 Days : 5
Experience.Flight Crew.Type : 50
ASRS Report Number.Accession Number : 307109

Person : 2

Reference : 2
Reporter Organization : Military
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot

Events

Anomaly.Conflict : NMAC
Anomaly.Other

Detector.Person : Flight Crew
Miss Distance.Horizontal : 400
Miss Distance.Vertical : 50
Result.Flight Crew : Took Evasive Action

Assessments

Primary Problem : Human Factors

Narrative: 1

AFTER PERFORMING EXTENSIVE MAINT ON A PA28-140 WHICH INCLUDED AN ANNUAL INSPECTION AND THE INSTALLATION OF A HIGHER HORSEPOWER ENG (STC APPROVED), A TEST FLT WAS MADE. WX WAS CLR, GOOD VISIBILITY, WITH A THIN BROKEN STRATUS LAYER BTWN 1100 FT AND 1300 FT W OF THE ARPT -- PALOMAR (CRQ). ACFT WAS THOROUGHLY CHKD IN THE RUN UP AREA AND NO DISCREPANCIES WERE NOTED. ACFT DEPARTED VFR ON RWY 24 AND MADE L TFC, CLBING OUT OF THE PATTERN AND LEVELING OFF AT 5000 FT (IN CLASS E AIRSPACE), BUT CONTINUING A L PATTERN OVER THE ARPT SO THAT PERFORMANCE AND RELIABILITY CHKS COULD BE MADE ON THE NEW ENG CLOSE TO THE ARPT. TWR FREQ WAS MONITORED. SEVERAL CIRCUITS WERE MADE AROUND THE PATTERN. AFTER A TURN TO THE L XWIND WAS STARTED, A REQUEST TO THE TWR TO DSND INTO THE PATTERN WAS INITIATED. AT THIS INSTANT A MIL HELI (POSSIBLY A HUEY OR SIMILAR SIZE HELI) WAS SPOTTED IN VERY CLOSE PROX TO ACFT. THE HELI'S POS RELATIVE TO ACFT APPEARED TO BE SLIGHTLY TO THE R AND MAYBE 40-50 FT HIGHER AT A DISTANCE OF 300-400 FT CONVERGING HEAD ON. AN IMMEDIATE INCREASE TO THE L AND AN IMMEDIATE DSCNT WERE EXECUTED. IT APPEARED THAT THE HELI PERFORMED A SIMILAR MANEUVER, POSSIBLY CLBING INSTEAD OF DSNDING. AFTER A TURN TO THE L DOWNWIND, NOW AT ABOUT 4700 FT THE TWR INQUIRED AS TO WHETHER OR NOT VISUAL CONTACT WAS ESTABLISHED WITH THE HELI. A SAFE RETURN TO THE ARPT IN A L HAND PATTERN WAS MADE FOLLOWING A DSNDING R 360 DEGS MADE FROM THE L DOWNWIND IN ORDER TO LOSE ALT. AFTER A NORMAL LNDG, A VISIT TO THE TWR WAS MADE. IT WAS DETERMINED THAT THE HELI WAS IN CONTACT WITH APCH CTL. TYPE OF FLT (VFR OR IFR) IS UNKNOWN AT THIS TIME SO IT IS UNKNOWN AS TO WHETHER OR NOT HE RECEIVED ANY TA'S. AFTER DISCUSSING THE MATTER WITH THE 3 AIR TFC CTLRS ON DUTY AT THE FIELD AND THE TWR SUPVR, AND REFING NTSB 830 WHICH DOES NOT REQUIRE ANY RPTS TO BE FILED FOR AN OCCURRENCE OF THIS SORT, IT WAS DETERMINED THAT THE BEST COURSE OF ACTION BASED ON THE INFO WAS TO MAKE A RPT THROUGH THIS FORUM AS A PUBLIC SVC TO THE AVIATION COMMUNITY. CONTRIBUTING FACTORS MAY BE: MONITORING ENG AND FLT INSTS DURING POST MAINT TEST FLT. TFC SCAN INTERRUPTION AS A RESULT OF ATTEMPTING TO MAINTAIN ACCURATE TFC PATTERN LEGS AT ALT BY USING GND REF POINTS. NOT MONITORING APCH CTLR FREQ AND REQUESTING TA'S (ALTHOUGH NOT REQUIRED IN CLASS E AIRSPACE). FAILURE OR INABILITY OF APCH CTL TO ISSUE TA TO PLT OF HELI. FAILURE ON THE PART OF BOTH PLTS TO ADEQUATELY '**SEE AND AVOID.**'

Synopsis

NMAC.

ACN: 300491 (16 of 25)

Time / Day

Date : 199503
Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : SEA
State Reference : WA
Relative Position.Angle.Radial : 170
Relative Position.Distance.Nautical Miles : 20
Altitude.MSL.Single Value : 7000

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft : 1

ATC / Advisory.TRACON : SEA
Aircraft Operator : Corporate
Make Model Name : B777 Undifferentiated or Other Model
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Test Flight / Demonstration
Flight Phase : Climb
Route In Use : Vectors
Airspace.Class B : SEA

Aircraft : 2

Aircraft Operator : Air Carrier
Make Model Name : B767 Undifferentiated or Other Model
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Climb
Route In Use : Vectors

Person : 1

Reference : 1
Reporter Organization.Other
Function.Flight Crew : Captain
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 14000
Experience.Flight Crew.Last 90 Days : 60
Experience.Flight Crew.Type : 50
ASRS Report Number.Accession Number : 300491

Person : 2

Reference : 2
Reporter Organization : Government
Function.Air Traffic Control : Trainee
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Commercial

Person : 3

Reference : 3
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Air Transport Pilot (ATP)

Person : 4

Reference : 4
Reporter Organization : Government
Function.Air Traffic Control : Departure
Qualification.Air Traffic Control : Fully Certified

Events

Anomaly.Conflict : NMAC
Anomaly.Other
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
Miss Distance.Horizontal : 0
Miss Distance.Vertical : 500
Result.Flight Crew : Took Evasive Action

Assessments

Primary Problem : Human Factors

Narrative: 1

THE PROB AROSE DURING A RWY 13L DEP FROM BOEING FIELD WHEN THE DEP CTRLR POINTED OUT ANOTHER ACFT, AN ACR 767 CLBING OUT OF SEATAC ARPT SBOUND, AND ASKED US IF WE HAD VISUAL CONTACT. WE DID AND SO ADVISED. THE CTRLR THEN ASKED US TO MAINTAIN VISUAL SEPARATION WITH THAT ACFT DURING THE CLB BUT THEN UNEXPECTEDLY AND IMMEDIATELY GAVE US A HDG THAT WOULD PUT US ON A PERFECT HEAD-ON COLLISION COURSE WITH THAT ACFT. THE ALTS AND CLB RATES OF BOTH ACFT WERE VERY SIMILAR. OUR DESIRED RTE WAS WBOUND AND THE ACR 767 WAS TURNING EBOUND. THE ALT AND RELATIVE POS OF THE 767 WAS MONITORED ON THE TCASII DISPLAY. I COULD **SEE** A CONFLICT DEVELOPING AS WE TURNED TO THE REQUESTED HDG. THE FAA FLT TEST PLT WAS THE PF AT THE TIME THROUGH THE AUTOPLT. I THEN ASSUMED MANUAL CTL FO THE AIRPLANE AND INCREASED THE RATE OF CLB SEVERAL THOUSAND FPM SO AS TO PASS ABOVE THE 767. SHORTLY AFTER THAT, A TA WAS ISSUED BY TCASII. WITHIN A FEW SECONDS A PREVENTATIVE RA WAS ISSUED, WHICH CAME OUT AS AN AURAL WARNING 'MONITOR VERT SPD.' THE CORRESPONDING PITCH LIMIT INDICATION ON THE PRIMARY FLT DISPLAY (PFD) TO **AVOID** THE OTHER ACFT WAS TO MAINTAIN A PITCH ATTITUDE NO LOWER THAN ABOUT 15 TO 20 DEGS NOSE UP. THE RA DID NOT REQUIRE ANY ADDITIONAL MANEUVERING OR ANY DEV FROM OUR CLRNC. WE HAD TO MAKE A VERY RAPID CLB TO OUR ASSIGNED ALT OF 9000 FT MSL TO **AVOID** THE 767. I'M A LITTLE UNCERTAIN WHAT THE CREW OF THE 767 WERE TOLD ABOUT THE SEPARATION GIVEN TO THEM. IF THEY WERE ALSO MAINTAINING VISUAL SEPARATION, THEN PERHAPS THEY WERE ALSO EXPEDITING THEIR CLB TO **AVOID** US. I DON'T KNOW. IN THE FUTURE, I WON'T BE SO QUICK TO VOLUNTEER TO DO THE

VISUAL SEPARATION FUNCTION, ESPECIALLY WHEN A CONFLICT CAN BE **SEEN** IN THE MAKING. DOES ACCEPTING RESPONSIBILITY FOR VISUAL SPN ALLOW YOU TO DISREGARD SUBSEQUENT RADAR VECTORS? WILL ATC GIVE THE 2 ACFT INVOLVED THE SAME 'MAINTAIN VISUAL SEPARATION' CLRNC? ATC SHOULD NOT BE PROVIDING VECTORS THAT CREATE A RISK OF COLLISION THAT THE PLT THEN HAS TO RECOVER FROM. 2 ACFT BOTH CLBING AND TURNING TOWARDS A HEAD-ON ENCOUNTER MAKE IT DIFFICULT TO JUDGE WHAT EVASIVE ACTION MIGHT BE REQUIRED TO 'MAINTAIN VISUAL SEPARATION.'

Synopsis

B-777 TCASII TA RA HAD NMAC WITH B-767. VISUAL SEPARATION USED **SEE** AND **AVOID** CONCEPT IN CLASS B AIRSPACE.

ACN: 295103 (17 of 25)

Time / Day

Date : 199501
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : DPA
State Reference : IL
Relative Position.Angle.Radial : 277
Relative Position.Distance.Nautical Miles : 14
Altitude.MSL.Single Value : 3200

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 15000

Aircraft : 1

ATC / Advisory.Tower : DPA
Aircraft Operator.Other
Make Model Name : PA-34-200T Turbo Seneca II
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Test Flight / Demonstration
Flight Phase : Descent
Flight Phase : Descent
Airspace.Class E : ORD

Aircraft : 2

Make Model Name : Cessna Single Piston Undifferentiated or Other Model
Crew Size.Number Of Crew : 1
Operating Under FAR Part.Other
Flight Phase : Cruise
Flight Phase : Cruise

Person : 1

Reference : 1
Reporter Organization.Other
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 13500
Experience.Flight Crew.Last 90 Days : 90
Experience.Flight Crew.Type : 5
ASRS Report Number.Accession Number : 295103

Person : 2

Reference : 2
Reporter Organization.Other
Function.Other
Qualification.Other

Person : 3

Reference : 3
Reporter Organization : Government
Function.Air Traffic Control : Local
Qualification.Air Traffic Control : Fully Certified

Person : 4

Reference : 4
Reporter Organization.Other
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot

Events

Anomaly.Conflict : NMAC
Detector.Person : Flight Crew
Miss Distance.Horizontal : 0
Miss Distance.Vertical : 200
Result.Flight Crew : Took Evasive Action
Result.Flight Crew : Returned To Clearance

Assessments

Primary Problem : Human Factors

Narrative: 1

THE FLT WAS FOR A MAINT CHK OF A SENECA II TURBO-CHARGING SYS. THE TESTS HAD BEEN CARRIED OUT S AND W OF ROCKFORD ARPT (RFD) USING FLT FOLLOWING OF ZAU AND ROCKFORD APCH. A MECH WAS OCCUPYING THE COPLT SEAT TO RECORD ENG DATA AND HELP WATCH FOR TFC. HAVING COMPLETED THE TESTS, WE WERE RETURNING TO DPA ARPT. WE DSNDED TO 3500 FT MSL AND INTERCEPTED THE DPA RWY 10 LOC COURSE. RFD APCH ADVISED US THAT RADAR SVC WAS TERMINATED AND TO SQUAWK VFR. WE CHANGED FREQS AND I LISTENED TO DPA ATIS. BEGINNING THE DSCNT FROM 3500 FT MSL I TUNED DPA TWR. AT APPROX 12-15 NM WEST OF DPA ARPT AND PASSING THROUGH 3200 FT MSL, MY ATTN, AND IMMEDIATELY, THE ATTN OF THE MECH, WAS CAUGHT BY A SINGLE ENG CESSNA (I BELIEVE A 182RG OR 210) APCHING 12:00 O'CLOCK TOWARD US, AND SLIGHTLY BELOW. I PULLED BACK ON THE YOKE TO CLR THE TFC, BUT BECAUSE OF LATE SIGHTING AND RATE OF CLOSURE, IT IS DIFFICULT TO KNOW HOW MUCH THE EVASIVE ACTION HELPED TO CLEAR THE TFC. CONTRIBUTING FACTORS TO THIS INCIDENT INCLUDE: 1) FLYING IN UNFAMILIAR ACFT, WHICH REQUIRES MORE TIME LOCATING CTLS, INSTS, AND SWITCHES, AND DETRACTING FROM FOCUSING ATTN OUTSIDE. 2) THE LIGHT COLOR OF THE CONFLICTING TFC, BLENDING IN WITH THE SNOW COVERED TERRAIN. 3) THE APPROACH ANGLE GIVING LITTLE RELATIVE MOVEMENT FOR THE EYE TO **SEE**. CORRECTIVE ACTION INCLUDES MAINTAINING ACTIVE WATCH FOR OTHER TFC AND INCREASING THE SCAN DURING CLB AND DSCNTS IN BUSY TERMINAL AREAS. ON A VFR DSCNT, LIKE THIS ONE, GENTLE TURNS L AND R OF COURSE MAY HELP TO GIVE RELATIVE MOVEMENT AND MAKE IT EASIER TO **SEE** AND **AVOID** OTHER TFC. ALTHOUGH THE MECH AND I SAW THE TFC AT ABOUT THE SAME TIME, HAVING ANOTHER PERSON ON BOARD ALSO LOOKING FOR TFC IS A HELP. I NORMALLY ASK A PAX (OR IN THIS CASE A MECH) IN THE R SEAT TO HELP ME WATCH FOR OTHER ACFT.

Synopsis

DURING DSCNT ON A MAINT FLT, A TEST PLT TOOK EVASIVE ACTION TO **AVOID** ANOTHER ACFT.

ACN: 284157 (18 of 25)

Time / Day

Date : 199409
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : SUU
State Reference : CA
Relative Position.Distance.Nautical Miles : 4
Altitude.MSL.Single Value : 4000

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 15
Light : Daylight

Aircraft : 1

ATC / Advisory.Tower : CCR
Aircraft Operator : Personal
Make Model Name : Bonanza 35

Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Test Flight / Demonstration
Flight Phase : Climb
Flight Phase : Cruise
Flight Phase : Cruise
Airspace.Class E : SUU

Aircraft : 2

Aircraft Operator : FBO
Make Model Name : King Air C90 E90
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Training
Flight Phase : Cruise
Flight Phase : Cruise

Person : 1

Reference : 1
Reporter Organization.Other
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Commercial
Experience.Flight Crew.Total : 1100
Experience.Flight Crew.Last 90 Days : 120
Experience.Flight Crew.Type : 30
ASRS Report Number.Accession Number : 284157
Analyst Callback : Completed

Person : 2

Reference : 2
Reporter Organization.Other
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Instructor
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Flight Instructor

Person : 3

Reference : 3
Reporter Organization.Other
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Private
Qualification.Flight Crew : Instrument

Events

Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : FAR
Detector.Person : Flight Crew
Miss Distance.Horizontal : 0
Miss Distance.Vertical : 15
Result.Flight Crew : Took Evasive Action

Assessments

Primary Problem : Human Factors

Narrative: 1

I WAS LEVELING OFF FROM A CLB AT 4000 FT 4 MI S OF TRAVIS AFB, CA. I LEANED FORWARD TO CLICK ON THE AUTOPLT WHEN A KING AIR 300 APPEARED IN MY 3 O'CLOCK ABOUT 50 FT AWAY. THE KING AIR WAS AT THE SAME ALT BUT DONE UNDERNEATH ME IN A L HAND TURN. THE KING AIR WAS DEFINITELY IN CRUISE FLT. THE RULE IS '**SEE** AND **AVOID**' BUT HE CAME AT ME UNDER MY R WING AND WAS OUT OF MY SIGHT. I GUESS HE SAW ME BECAUSE HE DID BARELY MISS ME AS HE WENT OVER. WE WERE OVER TRAVIS' ALERT AREA AT THE TIME. TO PREVENT THIS: WELL, I'VE HAD THIS PROB BEFORE. IT'S AN FBO TRAINER AT NAPA ARPT. THEY TEND TO FLY THEIR BONANZAS AND KING AIRS THROUGH A HIGHLY BUSY PRACTICE AREA FOR CONCORD BUCHANAN FIELD (CA). I THINK WHAT COULD HAVE HELPED IF FBO WOULD EITHER **AVOID** THE PRACTICE AREA OR FLY ABOVE IT. IF THE KING AIR WAS ON FLT FOLLOWING FROM TRAVIS SHOULD HAVE

ISSUED A TFC ALERT. CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO: RPTR STATES HE WAS NOT YET IN CONTACT WITH TRAVIS AS HE HAD JUST DEPARTED BUCHANAN ARPT AND WAS ABOUT TO SWITCH FREQS. WHEN HE DID MAKE CONTACT THE OTHER ACFT WAS LONG GONE SO HE DID NOT QUERY THE CTLR.

Synopsis

SMA HAS NMAC WITH SMT.

ACN: 217871 (19 of 25)

Time / Day

Date : 199207
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : SEE
State Reference : CA
Relative Position.Distance.Nautical Miles : 0
Altitude.AGL.Single Value : 500

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 20
Light : Daylight
Ceiling.Single Value : 20000

Aircraft

ATC / Advisory.Tower : SEE
Aircraft Operator : Corporate
Make Model Name : Helicopter
Crew Size.Number Of Crew : 2
Flight Plan : None
Mission : Test Flight / Demonstration
Flight Phase : Landing
Flight Phase : Cruise
Flight Phase : Landing
Flight Phase : Cruise
Airspace.Class D : SEE

Person : 1

Reference : 1
Reporter Organization.Other
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 6000
Experience.Flight Crew.Last 90 Days : 92
Experience.Flight Crew.Type : 3000
ASRS Report Number.Accession Number : 217871

Person : 2

Reference : 2
Reporter Organization.Other
Qualification.Other

Person : 3

Reference : 3
Reporter Organization : Government
Function.Air Traffic Control : Local
Qualification.Air Traffic Control : Fully Certified

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Landing Without Clearance
Detector.Person : Flight Crew
Result.General : None Reported / Taken

Assessments

Primary Problem : Aircraft

Narrative: 1

I WAS PIC ON A ROUTINE MAINT FLT IN A HELI, FLYING OUT OF **SEE** IN EL CAJON, CA. ON BOARD THE ACFT WAS OUR CREW CHIEF, A LICENSED A AND P MECH, AS WE WERE CONDUCTING FORWARD FLT (MAIN ROTOR) TRACK AND BAL VIBRATION ANALYSIS, AND CREW CHIEF WAS OPERATING THE BALANCING EQUIP WHILE I WAS FLYING. WE HAD BEEN WORKING ON THIS PARTICULAR ACFT THE DAY BEFORE, AS WELL AS HAD MADE SEVERAL FLTS ON THIS PARTICULAR MORNING, WORKING TO FINISH THE HIGH-SPD TRACK AND BAL CHK. WE HAD REQUESTED THE USE OF RWY 17/35 (TO **AVOID** THE FLOW OF FIXED-WING TFC) AND REQUESTED OVERFLT OF THE ARPT AT 900 FT MSL, FOR N AND SBOUND PASSES. THE TWR ADVISED US TO RPT ON THE 180 TURN EACH PASS, AND THAT WE WERE CLRED TO PROCEED WITH OUR MAINT FLT. THIS WAS ONE OF MANY FLTS WE HAD MADE THAT MORNING, AND WE HAD BEEN USING THE 'NUMBERS XY' TO STAGE OUR DEPS AND ARRS FROM. (THE 'NUMBERS XY' IS NEAR THE FBO AND IS COMMONLY USED BY US FOR AN INGRESS AND EGRESS RTE TO THE FBO AS THERE ARE TIMES WE HAVE TO DO PROLONGED HOVER CHKS, AND THIS KEEPS ANY BLOWING DUST AWAY FROM OTHER FBO'S ON THE FIELD). WE WERE HEADED NBOUND AND AS WE WERE ABOUT TO TURN 180 SBOUND, MY PLT'S DOOR POPPED OPEN IN FLT. THE TWR FREQ WAS REALLY BUSY AT THAT POINT, AND WE PROCEEDED WITH OUR TURN AND FINALLY GOT THROUGH TO THE TWR AND ADVISED THEM THAT WE NEEDED TO CANCEL OUR OVERFLT REQUEST, AND WERE INSTEAD REQUESTING A RETURN FOR LNDG RIGHT AWAY. THE TWR CLRED US TO THE FBO (BY WAY OF 17/35) AND AS WE SLOWED AND APCHED A HOVER, MY PLT'S DOOR BEGAN TO FULLY OPEN FROM THE ROTOR DOWNWASH, AND BOTH ME AND MY CREW CHIEF'S CONCERN WAS THE DOOR WOULD OPEN 180 DEGS, AND TEAR OFF, OR DO DAMAGE TO THE MAIN WINDSHIELD, SO I ELECTED TO SET THE ACFT DOWN IMMEDIATELY ON RWY 17/35 (NEAR THE NUMBERS 35). I PULLED THE DOOR SHUT AND AGAIN SAFE-LOCKED IT, WITH REASSURANCE FROM MY CREW CHIEF THAT HE'D LOOK AT IT AS SOON AS WE GOT BACK TO THE FBO. WE CALLED THE TWR AND THEY ADVISED US THAT WE WERE CLRED TO LAND AT THE FBO AND I ADVISED THEM THAT WE HAD A DOOR POP OPEN ON THE LAST RUN THAT WE HAD TO SECURE IT IMMEDIATELY BEFORE PROCEEDING.

Synopsis

HELI ON TEST FLT HAS PLT DOOR POP OPEN. CLRED TO LAND AND RETURN TO FBO. CONCERNED REF DOOR TEARING OFF, TOUCHED DOWN ON RWY, CLOSED DOOR, THEN HOVER TAXIED TO FBO.

ACN: 208681 (20 of 25)

Time / Day

Date : 199204

Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : BFI

Locale Reference.ATC Facility : PWT

State Reference : WA

Relative Position.Distance.Nautical Miles : 3

Altitude.MSL.Single Value : 2500

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 30

Light : Daylight

Aircraft : 1

ATC / Advisory.TRACON : SEA

Aircraft Operator : Government

Make Model Name : Small Transport

Crew Size.Number Of Crew : 1

Flight Plan : None

Mission : Test Flight / Demonstration

Flight Phase : Descent

Flight Phase : Descent

Airspace.Class E : SEA

Aircraft : 2

Make Model Name : Small Aircraft, Low Wing, 2 Eng, Retractable Gear

Crew Size.Number Of Crew : 1

Flight Plan : IFR

Flight Phase : Initial Approach

Person : 1

Reference : 1
Reporter Organization : Government
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Commercial
Experience.Flight Crew.Total : 13200
Experience.Flight Crew.Last 90 Days : 125
Experience.Flight Crew.Type : 2200
ASRS Report Number.Accession Number : 208681

Person : 2

Reference : 2
Reporter Organization.Other
Function.Flight Crew : Single Pilot
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Commercial

Events

Anomaly.Conflict : NMAC
Detector.Automation : Air Traffic Control
Detector.Person : Air Traffic Control
Result.General : None Reported / Taken

Assessments

Primary Problem : Human Factors

Narrative: 1

VFR MAINT TEST FLT WHICH DEPARTED BOEING FIELD, SEATTLE, WA PROCEEDING TO A LOCATION APPROX 25 TO 30 MI NW OF SEATTLE. ACFT REMAINED CLR OF THE SEATTLE TCA AND TACOMA- MCCHORD TRSA AND CLBED TO 13500 FT IN GOOD VFR CONDITIONS. AFTER COMPLETING MAINT CHKS, I BEGAN A VFR DSCNT TO RETURN TO BOEING FIELD FOR LNDG. NO CONTACT WAS MADE WITH SEATTLE APCH CTL DURING THIS MAINT FLT. DSCNT PLACED MY ACFT AT 2500 FT APPROX 22 MI NW OF SEA VOR OR 4 TO 5 MI NW OF THE CITY OF BREMERTON, WA TO ENSURE I WOULD BE BELOW THE TCA. DSCNT WAS MADE VFR WITH WX CONDITIONS ESTIMATED AT 4000 FT TO 5000 FT SCATTERED WITH VISIBILITY N AND S 5 MI, E MORE THAN 30 MI. AT APPROX 3 MI E OF BREMERTON AT 2500 FT, I CONTACTED BOEING FIELD TWR AND REQUESTED LNDG INSTRUCTIONS. BOEING TWR ASKED IF I HAD TFC OFF MY L WING. AFTER LOOKING IN THAT DIRECTION AND **SEEING** NOTHING, I REPLIED NEGATIVE. AFTER LNDG AT BOEING FIELD, I WAS REQUESTED TO CALL SEA APCH CTL. UPON CONTACT, A CTLR STATED THAT AS I WAS TRANSITIONING THE NW AREA OF BREMERTON A SMA ACFT WAS BEING VECTORED BY SEA APCH CTL FOR THE ILS APCH TO BREMERTON NATIONAL ARPT, AN UNCTLED AIRFIELD. THE SMA ACFT EVIDENTLY STATED THAT OUR ACFT CAME IN CLOSE PROX TO EACH OTHER AND THAT HE HAD TO MANEUVER TO **AVOID** MY ACFT. THE CTLR DID NOT KNOW WHETHER THE PLT OF THE SMA ACFT WOULD FILE A NEAR MISS RPT. BOTH ACFT WERE IN EXCELLENT VFR CONDITIONS AT THE TIME, AND OUTSIDE ANY POSITIVE CTLED AIRSPACE (TCA OR TRSA). I DID NOT **SEE** THIS ACFT AT ANY TIME AND ALSO DO NOT KNOW WHAT ADVISORIES THE SMA WAS GIVEN BY SEA APCH CTL SINCE HE WAS BEING VECTORED AND MY TRANSPONDER WAS OPERATIVE ON 1200 WITH MODE C ACTIVATED. OBVIOUSLY, THIS WAS A HAZARDOUS SITUATION SINCE VFR CONDITIONS EXISTED AND BOTH ACFT ARE REQUIRED TO **AVOID** EACH OTHER EVEN THOUGH 1 IS BEING CTLED BY ATC. FAR 91.113 (B).

Synopsis

PLT OF SMT ACFT WAS ADVISED BY ATC AFTER LNDG THAT ANOTHER ACFT TOOK EVASIVE ACTION TO MISS HIS ACFT DURING VECTOR FOR AN APCH TO AN UNCTLED ARPT OUTSIDE THE NEARBY TCA RESULTING IN A NMAC.

ACN: 187749 (21 of 25)

Time / Day

Date : 199108
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : OSU
State Reference : OH
Relative Position.Distance.Nautical Miles : 8
Altitude.MSL.Single Value : 2500

Environment

Flight Conditions : VMC
Weather Elements / Visibility. Visibility : 4.5
Light : Daylight
Ceiling. Single Value : 20000

Aircraft

ATC / Advisory. TRACON : CMH
Aircraft Operator : Personal
Make Model Name : Small Aircraft, Low Wing, 1 Eng, Retractable Gear
Crew Size. Number Of Crew : 1
Flight Plan : None
Mission : Test Flight / Demonstration
Flight Phase : Initial Climb
Airspace. Class C : CMH

Person : 1

Reference : 1
Reporter Organization. Other
Function. Flight Crew : Pilot Flying
Function. Flight Crew : Single Pilot
Qualification. Flight Crew : Instrument
Qualification. Flight Crew : Flight Instructor
Qualification. Flight Crew : Air Transport Pilot (ATP)
Qualification. Flight Crew : Commercial
Experience. Flight Crew. Total : 5400
Experience. Flight Crew. Last 90 Days : 150
Experience. Flight Crew. Type : 30
ASRS Report Number. Accession Number : 187749

Person : 2

Reference : 2
Reporter Organization. Other
Function. Other
Qualification. Other

Person : 3

Reference : 3
Reporter Organization : Government
Qualification. Other

Person : 4

Reference : 4
Reporter Organization : Government
Function. Air Traffic Control : Departure
Qualification. Air Traffic Control : Fully Certified

Events

Anomaly. Deviation / Discrepancy - Procedural : FAR
Anomaly. Other
Detector. Person : Air Traffic Control
Result. General : None Reported / Taken

Assessments

Primary Problem : Human Factors

Narrative: 1

UPON DEPARTING OSU ON A DATA GATHERING FLT, TESTING THE GPS SYS AND SOFTWARE, WE BEGAN A ROUTINE CLB AND DEP DIRECT TO APE VOR, OUR FIRST DATA POINT. NORMALLY WE ARREST THE CLB AT 2000 FT AND PROCEED UNDER THE BASE OF THE 10 MI ARSA. WHEN CLR, WE CLB TO 3500 FT TO INITIALIZE OUR SOFTWARE FOR THE GPS TEST. ON THIS DAY, WE HAD BEGUN TO HAVE SOME SYS (NAV COMPUTER SOFTWARE) PROBLEMS. MY TECHNICIAN ON BOARD BEGAN TO REQUEST 3500 FT TO INITIALIZE, STATING 'I NEED 3500 FT...', THAT'S WHAT I PROGRAMMED THE SOFTWARE FOR'. IN AN ATTEMPT TO ACCOMMODATE HIS REQUEST, I BEGAN TO CLB INADVERTENTLY INTO CMH'S ARSA ABOUT 8 MI OUT FROM THE CENTER. I WAS MONITORING DEP (120.2) IN MY CLB BUT THIS DAY HAD NOT COMMUNICATED WITH HIM. AS WE NEARED APE I HEARD A PARTIALLY BLOCKED XMISSION FROM DEP TO ME BUT WAS UNSURE THE CALL SIGN WAS MINE AND SINCE I WAS NOT TALKING TO DEP, I DID NOT RESPOND OR QUERY HIS XMISSION. THE FLT CONTINUED WITH NO INCIDENT OR PROBLEM THROUGH THE GEOGRAPHICAL CHKPOINTS. I DID CONTACT INDIANAPOLIS CENTER OVER GALLIPOLIS, OH, AND WAS ADVISED OF AN ARSA TAG AND REQUEST THAT I CALL THE TWR (CMH) UPON MY RETURN TO OSU. UPON MY RETURN, I SPOKE WITH SHIFT SUPVR WHO INDICATED IT WAS NO BIG DEAL, BUT I HAD VIOLATED THE ARSA AND AS HE SAID 'THEY' ARE CRACKING DOWN ON THIS SORT OF THING. I ASKED FOR SOME UNDERSTANDING AND HE SAID HE AGREED

WITH ME BUT WOULD HAVE TO FILE THE RPT WITH THE FSDO. I ASKED FOR MORE UNDERSTANDING AND ADMITTED I WAS WRONG AND I HAD BEEN TEMPORARILY DISTR. HE SAID HE UNDERSTOOD BUT WOULD HAVE TO CALL THE FSDO OPS PERSONNEL ON CALL FOR THE WEEKEND, WHICH HE DID. I CALLED SUPVR BACK AND HE INDICATED THAT HE HAD INITIATED THE PAPERWORK AND IT WOULD BE UP TO THE FSDO AS TO HOW IT WAS HANDLED. I CALLED ANOTHER FRIEND IN THE FAA THAT WORKS APCH AND IT TURNS OUT HE WAS THE ONE THAT CAUGHT MY INCURSION AND TAGGED MY FLT. HE SAID HE WOULD TALK TO SUPVR AND ASK IF HE COULD DROP IT SINCE HE WAS THE ONE WHO HAD TO FILL OUT THE PAPERWORK. SUPVR SAID NO, IT HAD BEEN RPTED AND COULD NOT BE DROPPED. MY FRIEND TOLD ME THAT HAD THAT BEEN HIS SUPVR IT WOULD HAVE BEEN DROPPED. I WENT TO THE RADAR ROOM ON THE MORNING AFTER THE INCURSION TO **SEE** WHERE I WENT INTO IT AND HOW TO **AVOID** THIS SAME SITUATION AGAIN.

Synopsis

SMA FLT TESTING EQUIP PENETRATES ARSA WITHOUT CLRNC.

ACN: 151047 (22 of 25)

Time / Day

Date : 199007

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : HOU

State Reference : TX

Altitude.AGL.Single Value : 0

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Aircraft : 1

ATC / Advisory.Tower : HOU

Aircraft Operator : FBO

Make Model Name : Small Aircraft, Low Wing, 1 Eng, Fixed Gear

Crew Size.Number Of Crew : 1

Flight Plan : None

Mission : Test Flight / Demonstration

Flight Phase : Initial Approach

Flight Phase : Landing

Flight Phase : Landing

Flight Phase.Other

Airspace.Class D : HOU

Aircraft : 2

Aircraft Operator : Corporate

Make Model Name : Light Transport

Crew Size.Number Of Crew : 2

Flight Plan : IFR

Mission : Passenger

Flight Phase : Takeoff / Launch

Person : 1

Reference : 1

Reporter Organization.Other

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Commercial

Experience.Flight Crew.Total : 315

Experience.Flight Crew.Last 90 Days : 30

Experience.Flight Crew.Type : 15

ASRS Report Number.Accession Number : 151047

Person : 2

Reference : 2

Reporter Organization : Government

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Other

Person : 3

Reference : 3
Reporter Organization.Other
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Air Transport Pilot (ATP)

Person : 4

Reference : 4
Reporter Organization : Government
Function.Air Traffic Control : Local
Qualification.Air Traffic Control : Fully Certified

Events

Anomaly.Conflict : Ground Conflict, Critical
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Ground Incursion : Runway
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Anomaly.Other
Detector.Person : Air Traffic Control
Detector.Person : Flight Crew
Miss Distance.Horizontal : 20
Miss Distance.Vertical : 50
Result.Flight Crew : Took Evasive Action

Assessments

Primary Problem : Human Factors

Narrative: 1

THE EVENT BEGAN AS A NORMAL APCH TO LNDG AT HOBBY ARPT BY XING THE FIELD AT 1500 FROM THE W AND ENTERING A L DOWNWIND PATTERN FOR RWY 12L. ATC ADVISED ME OF TFC THAT JUST DEPARTED RWY 12L TURNING NBND, CLRED ME TO LAND, AND INSTRUCTED ME TO HOLD SHORT OF RWY 22 (I DID NOT ACKNOWLEDGE THIS XMISSION). AN ACR MLG WAS CLRED FOR IMMEDIATE TKOF ON RWY 22 AND ADVISED OF APCHING TFC FOR RWY 12R, AN ACFT WAS CLRED ACROSS MY RWY (17L) VIA THE RED LINE (**SEE** ENCLOSED DIAGRAM) FOR DEP IN RWY 12R AND TOLD TO HOLD SHORT OF RWY 12. AN LTT Y WAS THEN CLRED TO TAXI INTO POS ON RWY 22 AND HOLD FOR TKOF. I ADVISED TWR THAT I WAS DOWNWIND AND INQUIRED WHETHER THERE WAS TFC ON FINAL FOR RWY 12R. I AGAIN WAS CLRED TO LAND ON RWY 12L AND TOLD TO HOLD SHORT OF RWY 22 FOR TFC. THE XMISSION "NEG, THERE IS NO ONE ON FINAL FOR RWY 12R" FOLLOWED ABOUT 11 SECS LATER. TWR THEN CLRED AN SMT FOR LNDG ON RWY 12L ADVISING THAT HE WAS #2 FOLLOWING ME (ON BASE AT A MILE FROM THE ARPT). TWR THEN CLRED AN ACR LGT ACROSS MY RWY (12L) AND 17. THE LTT Y WAS CLRED FOR TKOF ON RWY 22 AND TOLD THAT TFC ON FINAL FOR RWY 12L (ME) WILL HOLD SHORT OF RWY 22. AN SMT JET WAS TOLD TO TAXI INTO POS ON RWY 22 AND HOLD FOR TKOF. I WAS CLRED AGAIN FOR LNDG AND INSTRUCTED TO HOLD SHORT OF RWY 22. THE LTT Y WAS ALSO TOLD AGAIN THAT I WILL HOLD SHORT OF RWY 22 AND I WAS INSTRUCTED TO STOP. I COULD NOT STOP IN TIME TO HOLD SHORT OF RWY 22 AND ENCROACHED HIS RWY NEARLY CAUSING A COLLISION ON THE RWY. (50' VERTICAL AND 20' LATERAL SEP ESTIMATED). MY APCH TO LNDG AS STATED BEFORE BEGAN AS NORMAL, HOWEVER, IT **SEEMS** THAT AS I COMPLETED MY PATTERN AND ENTERED FINAL APCH THAT THE SITUATION BECAME MORE CRITICAL. AS I TURNED FINAL I COULD **SEE** THE ACR LGT XING MY RWY AT A SLOW RATE. WHEN I WAS WITHIN 1/2 MI OF THE RWY OR CLOSER, THE LGT HAD JUST CLRED MY RWY AND APPEARED TO STOP OR PROCEED EXTREMELY SLOW. I BEGAN TO FOCUS MY ATTN ON THE WAKE TURB BEING CREATED BY THE JET BLAST, AND REALIZED THAT IT PRESENTED A HAZARD BECAUSE IT WAS XING MY LNDG THRESHOLD. I DECIDED IT BEST TO MAINTAIN ALT OF ABOUT 100' UNTIL CLR OF THE TURB, THEN BEGAN MY PWR REDUCTION AND DSNT TO THE RWY. IT **SEEMS** THAT I ALLOWED MY AIRSPD TO BUILD SUFFICIENTLY TO PREVENT MY ACFT FROM SETTLING ON THE RWY AS NEEDED TO MAINTAIN MAX SHORT FIELD PERFORMANCE. AS I TOUCHED DOWN MY ACFT FLOATED AND I DID NOT OBTAIN EFFECTIVE BRAKING PERFORMANCE BECAUSE OF MY EXCESS AIRSPD AND FULL FLAP EXTENSION (WHICH I DID NOT RETRACT UPON LNDG). MY ACFT SKIDDED ON THE RWY AFTER BECOMING SETTLED AND BLEW THE R MAIN TIRE AS WE SKIDDED ACROSS RWY 22 AND VEERED R TO **AVOID** THE LTT Y. I BELIEVE THAT THERE WERE SEVERAL FACTORS CONTRIBUTING TO THE INCIDENT THAT INVOLVED FAULTY JUDGEMENT THAT LED TO BAD DECISIONS. THE FIRST OF WHICH WAS THE PERCEPTION OF THE CTRLR THAT THE LGT WOULD NOT BE A LIMITING FACTOR ON MY LNDG PERFORMANCE AND ASSUMED THAT BECAUSE HOLDING SHORT OF RWY 22 IS A NORMAL PROC THAT IS ACCOMPLISHED ROUTINELY THAT I COULD COMPLETE THE LNDG WITH NO DANGER TO MYSELF OR THE DEPARTING LTT Y AND CLRED HIM ACROSS MY RWY. THE SECOND INVOLVES MY JUDGEMENT IN NOT RECOGNIZING THE SERIOUSNESS OF THE SITUATION THAT COLD HAVE BEEN **AVOIDED** BY SIMPLY ABORTING THE LNDG AND MAKING ANOTHER ATTEMPT AFTER COMPLETING ANOTHER PATTERN (IN RETROSPECT I DON'T THINK THAT MAKING A 360 DEG TURN FOR SPACING WOULD HAVE BEEN POSSIBLE BECAUSE OF THE TFC FOLLOWING ME FOR LNDG). THIRDLY, I THINK THAT BECAUSE I WAS ON A CHKRIDE WITH AN FAA FLT INSPECTOR IN THE ACFT THAT I WAS COMPELLED TO COMPLY WITH ME CLRNC AND LAND AS INSTRUCTED; NOT ONLY BECAUSE I THOUGHT THAT HE EXPECTED TO **SEE** HIGH PERFORMANCE FROM ME AS A PLT, BUT BECAUSE HE DIDN'T **SEEM** TO **SEE** A DANGEROUS SITUATION DEVELOPING EITHER. LASTLY, I THINK THAT THE CONCENTRATION FOCUSED ON THE **AVOIDANCE** OF THE WAKE TURB FROM THE LGT DISTR MY ATTN FROM FLYING MY ACFT AS NEEDED TO MAKE A PRECISE SHORT FIELD APCH AND LNDG.

Synopsis

CRITICAL GND CONFLICT BETWEEN SMA LNDG ON FAA CHECKRIDE AND DEPARTING CPR LTT Y.

ACN: 111030 (23 of 25)

Time / Day

Date : 198905
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : FMH
State Reference : MA
Relative Position.Distance.Nautical Miles : 5
Altitude.MSL.Single Value : 1000

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 5
Light : Daylight
Ceiling.Single Value : 4000

Aircraft : 1

ATC / Advisory.TRACON : FMH
Aircraft Operator : Military
Make Model Name : Helicopter
Crew Size.Number Of Crew : 2
Flight Plan : VFR
Mission : Test Flight / Demonstration
Flight Phase : Cruise
Flight Phase : Cruise
Airspace.Class D : FMH

Aircraft : 2

Aircraft Operator : Military
Make Model Name : Military Transport
Crew Size.Number Of Crew : 2
Flight Plan : VFR
Mission : Training
Flight Phase : Climb

Person : 1

Reference : 1
Reporter Organization : Military
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Commercial
Experience.Flight Crew.Total : 650
Experience.Flight Crew.Last 90 Days : 30
Experience.Flight Crew.Type : 600
ASRS Report Number.Accession Number : 111030

Person : 2

Reference : 2
Reporter Organization : Military
Function.Flight Crew : First Officer

Person : 3

Reference : 3
Reporter Organization : Military
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying

Person : 4

Reference : 4
Reporter Organization : Government

Function.Air Traffic Control : Departure
Qualification.Air Traffic Control : Fully Certified

Person : 5

Reference : 5
Reporter Organization : Government
Qualification.Air Traffic Control : Fully Certified

Events

Anomaly.Conflict : NMAC
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
Miss Distance.Horizontal : 0
Miss Distance.Vertical : 400
Result.General : None Reported / Taken

Assessments

Primary Problem : Human Factors

Narrative: 1

AS A MIL HELI PLT OPERATING OUT OF A MIL AIRFIELD, WE HAVE A TELEWRITER IN OUR FLT PLANNING ROOM THAT RELAYS THE CURRENT WX OBSERVATION AT THE AIRFIELD. BEFORE GOING OUT TO PERFORM A MAINT TEST FLT, I CONSULTED THE TELEWRITER AND THE WX WAS '8 BROKEN, 40 OVCST AND 5 MI VISIBILITY IN HAZE.' FIGURING THAT I COULD GET A SPECIAL VFR CLRNC WITHIN THE CTL ZONE, I PROCEEDED OUT TO THE ACFT. ON MY INITIAL CALL TO GND CTL, I WAS INFORMED THAT THE AIRFIELD WAS IFR. MY RESPONSE WAS THAT I WOULD LIKE A SPECIAL, AND THE TWR OPERATOR CAME BACK WITH, 'OH, I WAS WRONG--THE FIELD IS NOW VFR.' SO, I SAID THAT THAT WAS BETTER AND THAT I WOULD LIKE HOVER TAXI INSTRUCTIONS VFR LCL. ALSO AT THE AIRFIELD THERE ARE AIR NATL GUARD FGT'S AND COAST GUARD MLT'S AND MLT JETS. AT THE TIME THERE WAS AN MLT JET DOING APCHS TO RWY 23 AND FGT'S IN THE PATTERN. I DEPARTED OUT TO THE LCL TEST FLT AREA APPROX 5 MI W OF THE AIRFIELD AND CLBED TO 1000' MSL. UPON ARRIVING THERE, I CALLED APCH CTL AND ASKED FOR VFR ADVISORIES AND WAS GIVEN A SQUAWK. THE RADAR CTLR ADVISED THAT I WAS IN RADAR CONTACT. I THEN PROCEEDED TO DO THE TEST FLT CHKS. WHILE I WAS FLYING I MAINTAINED A LISTENING WATCH (JUST LIKE THE FAR/AIM SUGGESTS THAT YOU DO). THE RADAR CTLR TOLD THE MLT Y THAT, 'IN YOUR TURN TO THE NE, THERE WILL BE AN ARMY HELI AT YOUR 11 O'CLOCK 1000, 5 W OF THE AIRFIELD.' (THE '1000, 5W' PART WAS VERY RUN TOGETHER AND COULD HAVE BEEN MISCONSTRUED AS '1500.')

THIS IS WHAT I THOUGHT THE CTLR SAID! ALSO, THE MISSED APCH INSTRUCTIONS FOR THE MLT Y JET WAS CLBING RIGHT HAND TURN TO 1800' FOR VECTORS BACK TO THE FINAL APCH COURSE. THE MLT Y CREW RESPONDED WITH, 'WE WON'T **SEE** THEM, THERE'S A LAYER BELOW US.' (I HEARD THIS TO BE, 'WE WON'T **SEE** THEM, THEY'RE BELOW US.')

RIGHT AFTER THEY (THE MLT Y CREW) SAID THIS, THEY CAME OUT OF THE CLOUD LAYER IN A RIGHT HAND CLBING TURN. IT LOOKED LIKE THEY WERE GOING TO BE A LITTLE TOO CLOSE FOR COMFORT. I ESTIMATED THAT THEY WERE APPROX 300-500' ABOVE US. I TERMINATED THE FLT VERY SHORTLY AFTER THAT AND WENT TO THE RAPCON AT THE FIELD (WHICH IS AN FAA FAC). THE SUPVR AND THE CTLR WERE VERY APOLOGETIC. THE CTLR SAID THAT BECAUSE THE MLT Y CREW HAD RPTD THAT THERE WAS A LAYER BELOW THEM THAT THERE WAS NO NEED (IN HER EYES) TO ISSUE TFC TO ME BECAUSE I PROBABLY WOULDN'T **SEE** THEM EITHER. I WAS ALSO TOLD THAT IF I WANTED TO ACCELERATE THE ISSUE, THAT I COULD FORMALLY FILE A RPT AND REQUEST AN 'ENTAP' WHICH WOULD PROVIDE AN ALT READOUT OF BOTH ACFT (IF THEY WERE HIGH ENOUGH FOR THE REMOTE SITE TO PICK BOTH OF THEM UP), AND COULD BE USED TO RECREATE BOTH FLT PATHS AND **SEE** EXACTLY WHAT HAD HAPPENED. I GUESS THAT THE BOTTOM LINE IS, DON'T EXPECT THE CTLRS TO **SEE** AND **AVOID** FOR YOU!

Synopsis

MLT X HELICOPTER CLOSE TO ARPT, IN CONTACT WITH TWR, HAS NEAR MISS WITH MLT Y JET EXECUTING MULTIPLE INSTRUMENT APCHS.

ACN: 92493 (24 of 25)

Time / Day

Date : 198808
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : BFI
State Reference : WA
Relative Position.Angle.Radial : 308
Relative Position.Distance.Nautical Miles : 3
Altitude.MSL.Single Value : 1100

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 10

Light : Daylight
Ceiling.Single Value : 4000

Aircraft : 1

ATC / Advisory.Tower : BFI
Aircraft Operator.Other
Make Model Name : Medium Large Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Flight Plan : IFR
Mission : Test Flight / Demonstration
Flight Phase : Initial Approach
Flight Phase.Other
Airspace.Class D : BFI

Aircraft : 2

Make Model Name : Small Aircraft
Crew Size.Number Of Crew : 1
Flight Plan : VFR
Flight Phase.Other

Person : 1

Reference : 1
Reporter Organization.Other
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 5600
Experience.Flight Crew.Last 90 Days : 120
Experience.Flight Crew.Type : 1000
ASRS Report Number.Accession Number : 92493

Person : 2

Reference : 2
Reporter Organization.Other
Function.Flight Crew : First Officer
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)

Person : 3

Reference : 3
Reporter Organization : Government
Function.Air Traffic Control : Local
Qualification.Air Traffic Control : Fully Certified

Events

Anomaly.Conflict : NMAC
Detector.Person : Flight Crew
Miss Distance.Horizontal : 300
Miss Distance.Vertical : 200
Result.Flight Crew : Took Evasive Action

Assessments

Primary Problem : Human Factors

Narrative: 1

DURING AN ILS APCH TO BOEING FIELD, A LIGHT SINGLE ENG ACFT WAS SPOTTED AND EVASIVE ACTION TAKEN TO **AVOID** COLLISION. I WAS PIC AND WAS MANUALLY FLYING AT THE TIME. THE APCH WAS IN EXCELLENT VISUAL FLT CONDITIONS AND I WAS FLYING ILS RAW DATA FOR REF, BUT PRIMARILY USING VISUAL CUES TO FLY THE APCH. THE FINAL PORTION OF THE APCH IS OVER A HEAVILY INDUSTRIALIZED AREA. THE COPLT CALLED TFC DEAD AHEAD. ALTHOUGH I HAD JUST LOOKED STRAIGHT AHEAD, I HAD NOT **SEEN** THE ACFT. I LOOKED AGAIN AND WAS THEN ABLE TO **SEE** HIM AGAINST THE MULTIPLE PATTERNED BACKGROUND. THE COLORING OF HIS ACFT DID NOT CONTRAST WITH THE GND AND SINCE WE WERE ON AN OVERTAKING COLLISION COURSE (HE WAS ALSO ON THE ILS LOC), THERE WAS LITTLE RELATIVE MOTION. WE LEVELED OFF AND TURNED RIGHT TO **AVOID** COLLISION. AFTER EVASION, WE RE-ESTABLISHED ON THE ILS AND COMPLETED THE APCH. AFTER THE INCIDENT, WE SPOKE WITH THE TWR PERSONNEL. THEY STATED THAT THE SMA WAS IN RADIO CONTACT WITH TWR AT THE TIME OF THE INCIDENT. HE HAD NO TRANSPONDER AND TWR WAS TRYING TO JUDGE RELATIVE DISTANCES BTWN US VISUALLY WITH THE AID OF BINOCULARS. THE TWR CTRLR DID NOT PERCEIVE A POTENTIAL

CONFLICT SINCE HE SAW THE SMA AS BEING BEHIND US. NEITHER THE TWR NOR THE PLT OF THE SMA WAS AWARE OF A PROB UNTIL WE TOOK EVASIVE ACTION. AT THAT TIME, I ESTIMATE THAT THERE WAS APPROX 20 SECS UNTIL IMPACT. ALTHOUGH BOTH MYSELF AND MY COPLT WERE SCANNING OUTSIDE, ONLY HE SAW THE ACFT IN TIME TO PREVENT THE DEVELOPMENT OF AN EXTREMELY DANGEROUS SITUATION. PERHAPS NON IFR ACFT SHOULD USE THE STANDARD VISUAL ENTRIES TO THE FIELD AND NOT THE INSTRUMENT APCH.

Synopsis

CLOSE PROX MLG GA-SMA ON APCH TO BFL.

ACN: 83306 (25 of 25)

Time / Day

Date : 198803
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : 4I8
Locale Reference.ATC Facility : IND
State Reference : IN
Relative Position.Angle.Radial : 40
Relative Position.Distance.Nautical Miles : 10
Altitude.MSL.Single Value : 2500

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft : 1

ATC / Advisory.TRACON : IND
Aircraft Operator : Personal
Make Model Name : Small Aircraft, High Wing, 1 Eng, Retractable Gear
Crew Size.Number Of Crew : 1
Flight Plan : None
Mission : Test Flight / Demonstration
Flight Phase : Climb
Flight Phase : Cruise
Flight Phase : Cruise
Flight Phase : Cruise
Airspace.Class C : IND

Aircraft : 2

Make Model Name : Light Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Flight Plan : IFR
Flight Phase : Initial Approach
Route In Use.Other

Person : 1

Reference : 1
Reporter Organization.Other
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 2900
Experience.Flight Crew.Last 90 Days : 54
Experience.Flight Crew.Type : 103
ASRS Report Number.Accession Number : 83306
Analyst Callback : Completed

Person : 2

Reference : 2
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)

Events

Anomaly.Conflict : Airborne Conflict
Anomaly.Deviation / Discrepancy - Procedural : FAR
Anomaly.Other
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
Miss Distance.Horizontal : 2500
Miss Distance.Vertical : 200
Result.Flight Crew : Took Evasive Action

Assessments

Primary Problem : Human Factors

Narrative: 1

THIS INCIDENT BEGAN ON A CAVU DAY WHILE I WAS FLYING NEAR GEIST RESERVOIR, APPROX 25 MI NE OF IND, TESTING RADIO EQUIP AND A FLT DIRECTOR/AUTOPLT IN AN SMA. AT 2500' I SET THE HDG BUG TO INTERCEPT THE LOC FOR IND 22R. AFTER LOOKING FOR TFC I ALLOWED THE FLT DIRECTOR, WITH THE AUTOPLT ENGAGED, TO CAPTURE THE LOC AND BEGAN TRACKING INBND AT 2500' AND 150 KTS. THE G/S WAS IN THE ARM MODE SO, AFTER AGAIN CHKING FOR TFC, I INITIATED A CLB TO TEST THE G/S CAPTURE MODE. WHEN THE G/S CAPTURED AT APPROX 4500' I INTENDED TO TURN RIGHT TO A NORTHERLY HDG TO CLR THE AREA. WHEN I CHKED FOR TFC, I OBSERVED AN LTT AT MY 5 O'CLOCK POS APPROX 1/2 MI AWAY, AND SLIGHTLY LOWER, HDG IN APPROX THE SAME DIRECTION PASSING ME ON MY RIGHT. UPON OBSERVING HIM I MAINTAINED HDG AND ALT AND VISUAL SEP UNTIL HE WAS WELL IN FRONT OF ME. I THEN TURNED NORTHERLY TO CLR THE AREA. UPON LNDG AT METRO IND (418) I WAS ASKED, ON UNICOM, TO CALL THE IND TWR. HE ASKED IF I HAD RECENTLY BEEN FLYING NEAR THE IND DOWNTOWN AREA. I TOLD HIM I HAD, AND HE INFORMED ME THAT THE LTT PLT WAS GOING TO FILE A NEAR MISS BECAUSE HE HAD TO BE VECTORED AROUND ME ON THE APCH. HE THEN ASKED IF I WAS AWARE OF THE IND ARSA AND I TOLD HIM I WAS. I DO NOT BELIEVE, HOWEVER, THAT I ENTERED THE ARSA NOR WOULD I EVER DO SO INTENTIONALLY W/O MAKING RADIO CONTACT. HOWEVER, MY ATTN WAS DIVERTED FROM WHERE I WAS, GEOGRAPHICALLY, DURING THE TIME I WAS MAINTAINING VISUAL SEP FROM THE OTHER ACFT, SINCE I HAD NO WAY OF KNOWING IF HE HAD VISUAL CONTACT WITH ME. THE ONLY EVASIVE ACTION ON MY PART WAS TO MAINTAIN HDG AND ALT UNTIL I COULD TURN SAFELY BEHIND THE JET. I NOW REALIZE HOW VERY INAPPROPRIATE IT WAS FOR ME TO HAVE FLOWN, EVEN ON A CLEAR DAY, NEAR THE LOC OF A BUSY ARPT W/O BEING IN RADIO CONTACT WITH THE CTLING FAC. I CAN GUARANTEE IT WILL NEVER, UNDER ANY CIRCUMSTANCE, HAPPEN AGAIN. I DO BELIEVE A CONTRIBUTING FACTOR WAS MY ATTENTIVENESS TO THE PROPER OPERATION OF THE FLT DIRECTOR I WAS TESTING. I WAS ALSO MADE AWARE OF HOW SOMETHING OF THIS NATURE, WHICH I HAVE HEARD ABOUT IN THE NUMEROUS SAFETY SEMINARS AND RECURRENT TRNING SESSIONS THAT I HAVE TAKEN, CAN HAPPEN EVEN THOUGH YOU BELIEVE YOURSELF TO BE A SAFETY CONSCIOUS PLT AND HAVE THOUGHT IT COULD NEVER HAPPEN TO YOU. I HAVE APOLOGIZED, BY TELEPHONE, TO BOTH THE ATC CTLR, AND THE PLT OF THE OTHER ACFT, FOR ANY INCONVENIENCE THEY MAY HAVE EXPERIENCED. CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING: RPTR AGREES THAT AFTER G/S CAPTURE AND THEN DELAYING TURN BECAUSE OF TFC HE PROBABLY DID ACTUALLY ENTER THE ARSA. HE KNOWS THE PLT OF THE SMT AND HAD FLOWN WITH HIM IN THE SMT BUT UNFORTUNATELY WAS UNABLE TO GET HOLD OF HIM BEFORE HE FILED THE NMAC. HAS TALKED TO FAA AND THEY ARE INVESTIGATING WHETHER TO FILE VIOLATION AGAINST PLT OF SMA FOR UNAUTH ENTRY INTO ARSA. THEY ARE NOT BLAMING HIM DIRECTLY FOR THE NMAC SINCE THE SMT WAS OVERTAKING THE SMA FROM BEHIND AND IT WAS SMT RESPONSIBILITY TO **SEE AND AVOID**. RPTR STATED HE JUST BECAME TOO ENGROSSED IN FLT TEST AND DID NOT REALIZE HE WAS SO CLOSE TO ARSA.

Synopsis

GA SMA ON ACFT FLT TEST PENETRATED ARSA WITHOUT AUTH WITH RESULTANT POTENTIAL AIRBOURNE CONFLICT.

