ASRS Database Report Set

Wake Turbulence Encounters

Report Set Description	A sampling of reports from flight crews encountering, or affected by, turbojet wake turbulence.
Update Number	.11.0
Date of Update	.November 4, 2008
Number of Records in Report Set	.50
Number of New Records in Report Set	.50
Type of Records in Report Set	For each update, new records received at ASRS will displace a like number of the oldest records in the Report Set, with the objective of providing the fifty most recent relevant ASRS Database records. Records within this Report Set have been screened to assure their relevance to the topic.

TH: 262-7

MEMORANDUM FOR: Recipients of Aviation Safety Reporting System Data

SUBJECT: Data Derived from ASRS Reports

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

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

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

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

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

Finda J Connell

Linda J. Connell, Director Aviation Safety Reporting System

CAVEAT REGARDING STATISTICAL USE OF ASRS INFORMATION

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

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

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

ACN: 802576 (1 of 50)

Synopsis

A WAKE ENCOUNTER DURING THE LNDG FLARE BY A C172 RESULTS IN A RWY EXCURSION AND WINGTIP DAMAGE.

ACN: 802317 (2 of 50)

Synopsis

DSCNT PRIOR TO AN ISSUED CROSSING RESTR PUTS A CRJ INTO AN ENCOUNTER WITH WAKE TURBULENCE OF THE PRECEDING ACFT.

ACN: 801313 (3 of 50)

Synopsis

A B767 CREW NOTICES A 'THUMP' SOUND DURING AN ENCOUNTER WITH THE WAKE OF A PRECEDING B757 THAT WAS DETERMINED BY MAINT TO BE AN ENGINE SURGE.

ACN: 801055 (4 of 50)

Synopsis

A319 FLT CREW ENCOUNTERS B777 WAKE TURBULENCE ON APCH TO SFO RESULTING IN A FLT ATTENDANT INJURY.

ACN: 799506 (5 of 50)

Synopsis

MD11 FLT CREW LANDS AFTER ATCT HAD ALLEGEDLY ISSUED A GAR CLRNC DUE TO THE PRECEDING ACFT OCCUPYING THE RWY LONGER THAN EXPECTED.

ACN: 798852 (6 of 50)

Synopsis

A B757 AT FL340 ENCOUNTERED A B747'S STRONG WAKE VORTEX AFTER IT PASSED OPPOSITE DIRECTION AT FL350.

ACN: 798019 (7 of 50)

Synopsis

A G4 AT FL320 FOLLOWING A B777 BY NINE MILES EXPERIENCED WAKE VORTEX UPSET WITH A 45 DEG ROLL AND 200-300 FT ALT LOSS.

ACN: 797833 (8 of 50)

Synopsis

AN A319 DSNDING THROUGH FL350 FOLLOWING A B767 BY 20 MILES ENCOUNTERED WAKE VORTEX AND ROLLED ABOUT 25 DEGS.

ACN: 797785 (9 of 50)

Synopsis

TWO CABIN ATTENDANTS ARE INJURED AS A RESULT OF WAKE TURBULENCE ENCOUNTER DURING ARRIVAL INTO NEW YORK.

ACN: 795623 (10 of 50)

Synopsis

A C550 ENCOUNTERED WAKE TURBULENCE FROM A B757 AND ROLLED SHARPLY 90-100 DEG. AFTER CONFERRING WITH DISPATCH AND MAINT THE FLT CREW DIVERTED TO ANOTHER ARPT.

ACN: 795431 (11 of 50)

Synopsis

INADVERTENT ENTRY INTO CLASS D AIRSPACE LEADS TO AN ENCOUNTER WITH THE WAKE OF ARRIVING JET TFC.

ACN: 795365 (12 of 50)

Synopsis

A DASH 8 FLT CREW RPTED THAT AFTER A POOR NIGHT'S SLEEP IN A NOISY HOTEL THEY INADVERTENTLY FLEW A ONE HOUR LEG WITH THE GEAR DOWN.

ACN: 794345 (13 of 50)

Synopsis

AN MD80 FLT CREW ENCOUNTERED WAKE TURBULENCE FROM ANOTHER MD80 AT ALTITUDE, RESULTING IN ALT DEV AND ROLL.

ACN: 793775 (14 of 50)

Synopsis

A B767-300 ENCOUNTERED WAKE TURBULENCE ON CLBOUT FROM EDDM, THROWING THREE FLT ATTENDANTS TO THE FLOOR.

ACN: 793628 (15 of 50)

Synopsis

A B757-200 ENCOUNTERED WAKE TURBULENCE FROM AN OPPOSITE DIRECTION ACFT THAT KNOCKED SEVERAL FLT ATTENDANTS OFF THEIR FEET.

ACN: 793336 (16 of 50)

Synopsis

AN EMB-145 FLT CREW ENCOUNTERED WAKE TURBULENCE ON APCH BEHIND A B777.

ACN: 792808 (17 of 50)

Synopsis

B737 FLT CREW OVERSHOOTS RWY 24R ON APCH TO LAX.

ACN: 792380 (18 of 50)

Synopsis

À B757 AT FL290 PASSED EIGHT MILES BEHIND A B747 AT FL300 AND RECEIVED TWO MODERATE WAKE TURBULENCE JOLTS.

ACN: 790639 (19 of 50)

Synopsis

B777-200 ENCOUNTERED WAKE TURB WHILE FLYING RECOMMENDED ONE MILE OFFSET ALONG OCEANIC TRACK. ENG COMPRESSOR STALL OCCURRED DURING THE ENCOUNTER.

ACN: 790263 (20 of 50)

Synopsis

IN AN AIRBUS AIRCRAFT, SUSPECTED TO BE HEAVIER THAN DOCUMENTED, WAKE TURBULENCE IS ENCOUNTERED DURING CRUISE CAUSING UNEXPECTED 30 DEGREE ROLL.

ACN: 789248 (21 of 50)

Synopsis

DURING A ROUTINE ARR WAKE TURBULENCE WAS ENCOUNTERED CAUSING A STARTLING RAPID ROLL.

ACN: 788923 (22 of 50)

Synopsis

FLT ATTENDANTS ABOARD MD80 SUFFER INJURIES AS A RESULT OF WAKE TURBULENCE ENCOUNTER.

ACN: 786359 (23 of 50)

Synopsis

E145 FOLLOWING A HEAVY JET ENCOUNTERS WAKE TURBULENCE AND PERFORMS GAR.

ACN: 786307 (24 of 50)

Synopsis

MD80 FLT CREW ENCOUNTERS WAKE TURBULENCE FROM PRECEDING ACFT PASSING 16000 FT DURING DSCNT. FLIGHT ATTENDANTS ARE ONLY INJURIES.

ACN: 786199 (25 of 50)

Synopsis

A320 FLT CREW RPTS EXCEEDING 250 KTS BELOW 10000 FT WHILE LOOKING FOR PRECEDING HEAVY JET PRODUCING WAKE TURBULENCE.

ACN: 784922 (26 of 50)

Synopsis

A320 INITIATED AN UNCOMMANDED RIGHT TURN AFTER TKOF FROM SFO AFTER EXPERIENCING WAKE TURB, RATHER THAN TRACKING THE PROPER COURSE FOR THE PORTE 3 DEP FROM RWY 28L.

ACN: 784210 (27 of 50)

Synopsis

BE36 PLT ON ANGEL FLT ENCOUNTERS WAKE TURBULENCE ON TKOF CAUSING A TRACK DEV FROM ASSIGNED DEP HEADING. EXPEDITIOUS HANDLING BY LCL CTLR MAY HAVE CONTRIBUTED TO THE WAKE ENCOUNTER.

ACN: 783029 (28 of 50)

Synopsis

FLT ATTENDANT INJURED WHEN A B777 ENCOUNTERS WAKE TURBULENCE OF A B747 DURING A DEP FROM ORD.

ACN: 782999 (29 of 50)

Synopsis

CONFUSION ABOUT ASSIGNED HEADING AFTER TKOF FOLLOWS CARJ ENCOUNTER WITH WAKE TURBULENCE FROM PREVIOUS DEP OF MD11.

ACN: 782186 (30 of 50)

Synopsis

WAKE TURBULENCE ENCOUNTER ON FINAL APCH CAUSES TEMPORARY RWY EXCURSION FOR C177RG PLT.

ACN: 779762 (31 of 50)

Synopsis

PC12 PLT RPTS ENCOUNTERING WAKE TURBULENCE SHORTLY AFTER TKOF FROM DAL AND NOT TURNING TO ASSIGNED HDG WHILE TRYING TO AVOID A SECOND ENCOUNTER.

ACN: 779656 (32 of 50)

Synopsis

B737 FLT CREW ENCOUNTERS WAKE TURBULENCE DURING ARR AND BUMPS AUTOPLT INTO CWS INADVERTENTLY. ACFT FAILS TO MAKE NEXT TURN ON ARR AND IS NOTICED BY ATC.

ACN: 779298 (33 of 50)

Synopsis

ACR ON APCH TO LAS QUESTIONED ATC'S APPLICATION OF WAKE TURBULENCE SEPARATION PROCS.

ACN: 778214 (34 of 50)

Synopsis

A B737 RPTS SEVERE WAKE TURB 5 NM IN TRAIL OF A B757 ON SFO RWY 28R. FULL L AND R AILERON INPUTS REQUIRED TO MAINTAIN ACFT CTL.

ACN: 777696 (35 of 50)

Synopsis

B737-700 ENCOUNTERED WAKE TURB AT CRUISE ALT. ACFT ROLLED AND LOST 500 FT BEFORE DSCNT WAS ARRESTED.

ACN: 777409 (36 of 50)

Synopsis

A Q400 AT FL240 8 NM IN TRAIL OF AN MD80 EXPERIENCED WAKE TURBULENCE.

ACN: 776801 (37 of 50)

Synopsis

AN ACR CREW IN TRAIL OF A B747 AND CONCERNED ABOUT IMPENDING WAKE TURB FAILED TO NOTICE THEY WERE NOT HANDED OVER TO LAX TWR FOR LNDG CLRNC.

ACN: 776281 (38 of 50)

Synopsis

B737-300 DEPARTED WITH RECOMMENDED SPACING BEHIND A LARGE AIRBUS. DURING CLIMBOUT, WAKE TURB WAS ENCOUNTERED, RESULTING IN A ROLL IN EXCESS OF 40 DEGS OF BANK.

ACN: 775554 (39 of 50)

Synopsis

B737 ON APCH TO RWY 19L AT SFO MUST GAR TO AVOID CONFLICT WITH DEP OFF ONE OF THE RWY 10'S.

ACN: 775138 (40 of 50)

Synopsis

MD80 ENCOUNTERS WAKE TURBULENCE FROM B737-800 ON CLBOUT.

ACN: 775137 (41 of 50)

Synopsis

MD80 FLT CREW RPTS WAKE TURBULENCE ENCOUNTER WITH PRECEDING B767-400 ON APCH TO RWY 28 AT ATL.

ACN: 774341 (42 of 50)

Synopsis

A B737 ENCOUNTERED SEVERE TURB ON APCH WITH A STALL WARNING. DURING THE GAR THE ASSIGNED ALT WAS EXCEEDED BY ABOUT 800' DURING A 6,000 FPM CLB.

ACN: 773765 (43 of 50)

Synopsis

PA28 ENCOUNTERS LIKELY WAKE VORTEX TURB FROM B737 LNDG ON UPWIND PARALLEL RWY.

ACN: 769622 (44 of 50)

Synopsis

B777 ENCOUNTERED WAKE TURB AT CRUISE ALT.

ACN: 769395 (45 of 50)

Synopsis

A B757-200 ENCOUNTERED WAKE TURBULENCE 5 MILES IN TRAIL OF SFO RWY 28R LOC TFC AT ABOUT 3400 FT.

ACN: 768121 (46 of 50)

Synopsis

AN EMB170 ATTEMPTING TO AVOID A B757 WAKE TURBULENCE DEVIATED FROM THE TRACON ASSIGNED HDG DEP BOS RWY 9.

ACN: 768089 (47 of 50)

Synopsis

AFTER TKOF A CL60 ENCOUNTERED WAKE TURB BEHIND A B737-800 THAT WAS MORE SEVERE THAN BEHIND MOST B737'S. INADEQUATE TFC SEPARATION PROVIDED BY ATC.

ACN: 767601 (48 of 50)

Synopsis

B737-700 SUFFERS TRACK DEV WHEN THE PF DIVERTS HIS ATTENTION TO COMPLETE A PAX PA ANNOUNCEMENT WITH THE ACFT IN A TURN. PNF ATTENTION DIVERTED TO LOG BOOK ENTRIES.

ACN: 765951 (49 of 50)

Synopsis

A320 FLT CREW ENCOUNTERS WAKE TURB FROM PRECEDING A320 AT 4700 FT ON THE SILOW1 DEP PHX.

ACN: 765382 (50 of 50)

Synopsis

CL600 FLT CREW RPTS WAKE TURB ENCOUNTER WITH PRECEDING A320 DEPARTING RWY 7L AT PHX. STICK SHAKER ACTIVATES BRIEFLY.

Report Narratives

Time / Day

Date : 200808 Local Time Of Day : 1201 To 1800

Place

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

Environment

Flight Conditions : VMC Light : Daylight

Aircraft : 1

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

Aircraft : 2

Controlling Facilities.Tower : ZZZ.Tower Operator.General Aviation : Personal Make Model Name : Helicopter Operating Under FAR Part : Part 91 Flight Phase.Descent : Approach

Person : 1

Affiliation.Other : Personal Function.Flight Crew : Single Pilot Qualification.Pilot : Private Experience.Flight Time.Last 90 Days : 44.3 Experience.Flight Time.Total : 83.4 Experience.Flight Time.Type : 83.4 ASRS Report : 802576

Events

Anomaly.Excursion : Runway Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Other Anomaly Independent Detector.Other.Flight CrewA : 1 Resolutory Action.Flight Crew : Regained Aircraft Control

Assessments

Problem Areas : ATC Human Performance Problem Areas : Environmental Factor

Narrative

I WAS CLEARED FOR NORMAL LNDG AT RWY 27R. WHEN I GOT DOWN AND JUST ABOUT TO FLARE, I EXPERIENCED WAKE TURBULENCE. THE AIRPLANE DRIFTED TO THE L. I TRIED TO MAKE A GAR BY APPLYING FULL POWER. THEN THE AIRPLANE DRIFTED TO THE R AND I WAS HEADING STRAIGHT DOWN AGAINST RWY. REDUCED POWER AND TRIED TO PITCH UP. THEN R WING HIT THE GND AND AIRPLANE TURNED. I JUMPED OVER THE GRASS AND TOUCHED DOWN ON TXWY IN A 90 DEG ANGLE TOWARDS TXWY. PUT FLAPS UP AND APPLIED FULL BRAKES. AIRPLANE STOPPED BETWEEN HANGAR AND ANOTHER BLDG. GOT NO WARNING REGARDING WAKE TURBULENCE. CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO: THE REPORTER SAID THAT THE WAKE WAS FROM A HELICOPTER MAKING A LANDING ON A PARALLEL TXWY. IT WAS APPARENTLY MAKING AN APPROACH FROM ABOVE AND BEHIND AND WAS NOT REPORTED TO OR SEEN BY THE REPORTER AT THE TIME OF THE INCIDENT.

Synopsis

A WAKE ENCOUNTER DURING THE LNDG FLARE BY A C172 RESULTS IN A RWY EXCURSION AND WINGTIP DAMAGE.

Time / Day

Date : 200808

Place

Locale Reference.Airport : CLT.Airport State Reference : NC Altitude.MSL.Single Value : 4000

Aircraft : 1

Controlling Facilities.Tower : CLT.Tower Operator.Common Carrier : Air Carrier Make Model Name : Regional Jet 700 ER&LR Operating Under FAR Part : Part 121 Flight Phase.Descent : Approach

Person : 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Qualification.Pilot : ATP ASRS Report : 802317

Events

Anomaly.Altitude Deviation : Excursion From Assigned Altitude Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Non Adherence : Clearance Independent Detector.Other.Flight CrewA : 1 Resolutory Action.Flight Crew : Returned To Original Clearance

Assessments

Problem Areas : Flight Crew Human Performance

Narrative

WERE CLEARED VISUAL RWY 23 CROSS 11 MI OUT AT 4000 FT. PF IMMEDIATELY STARTED DOWN OUT OF 4000 FT. I CORRECTED HIM AND HE BEGAN A CLB BACK TOWARD 4000 FT AND WE ENTERED WAKE TURBULENCE FROM THE ACFT IN FRONT OF US. HE WAS STARTLED AND I ASSUMED CTL AND WENT BACK TO 4000 FT. FO IS FAIRLY NEW AND DID NOT COMPREHEND WHAT THE CLRNC WAS. HE SAID HE THOUGHT WE WERE CLEARED FOR A VISUAL AND HE COULD DSND WHEN HE WANTED TO. SAID HE DID NOT HEAR HER SAY CROSS 11 MI OUT AT 4000 FT.

Synopsis

DSCNT PRIOR TO AN ISSUED CROSSING RESTR PUTS A CRJ INTO AN ENCOUNTER WITH WAKE TURBULENCE OF THE PRECEDING ACFT.

Time / Day

Date : 200808 Local Time Of Day : 1201 To 1800

Place

Locale Reference.Airport : ZZZ.Airport State Reference : US Altitude.MSL.Single Value : 12000

Environment

Flight Conditions : VMC

Aircraft : 1

Controlling Facilities.TRACON : ZZZ.TRACON Operator.Common Carrier : Air Carrier Make Model Name : B767-300 and 300 ER Operating Under FAR Part : Part 121 Flight Phase.Climbout : Intermediate Altitude

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Experience.Flight Time.Last 90 Days : 255 Experience.Flight Time.Total : 30000 Experience.Flight Time.Type : 6800 ASRS Report : 801313

Events

Anomaly.Aircraft Equipment Problem : Less Severe Anomaly.Inflight Encounter : Wake Turbulence Independent Detector.Other.Flight CrewA : 1 Resolutory Action.None Taken : Anomaly Accepted Consequence.Other

Assessments

Problem Areas : Aircraft Problem Areas : Environmental Factor

Narrative

THE REASON FOR THIS RPT IS TO ALERT CREWS THAT AN ENGINE SURGE CAN OCCUR WITH A WAKE TURBULENCE ENCOUNTER. A B757 HAD DEPARTED IN FRONT OF US AND WAS APPROX 5 MILES AHEAD. WE ENCOUNTERED A WAKE TURBULENCE EVENT WHICH INDUCED AN ENGINE SURGE ON THE R ENGINE. WE HAD NO IDEA THAT A SURGE HAD OCCURRED UNTIL DSCNT INTO LAX WHEN MAINT SENT A MSG STATING SAME. ALL INDICATIONS IN THE FLT DECK WERE NORMAL. I BELIEVED THE TURBULENCE AND 'THUMP' WE HEARD WERE ALL RELATED TO THE WAKE TURBULENCE EVENT ONLY. PLEASE ADVISE ALL OF OUR FLT CREWS THAT AN ENGINE SURGE IS POSSIBLE WHEN ENCOUNTERING WAKE TURBULENCE. THIS COULD BE CRITICAL DEPENDING UPON WHEN A WAKE TURBULENCE EVENT IS ENCOUNTERED. CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO: RPTR STATED THAT THEY CLBED THROUGH THE WAKE OF A 'STRETCH' B757 THAT CAUSED A ROLL OF 10 TO 15 DEGS AND WAS ESTIMATED AS MODERATE. MAINT DETERMINED THAT THERE HAD BEEN AN ENGINE SURGE AT THAT TIME EVEN THOUGH IT WAS NOT NOTED BY THE CREW ON THE ENGINE INSTRUMENTS. THERE WAS NO DAMAGE TO THE ENGINE. THE ENGINE TYPE IS SUBJECT TO AN AIRWORTHINESS DIRECTIVE TO PREVENT ENGINE POWER LOSSES DUE TO HPC SURGES (2003-19-15).

Synopsis

A B767 CREW NOTICES A 'THUMP' SOUND DURING AN ENCOUNTER WITH THE WAKE OF A PRECEDING B757 THAT WAS DETERMINED BY MAINT TO BE AN ENGINE SURGE.

Time / Day

Date : 200808 Local Time Of Day : 0601 To 1200

Place

Locale Reference.Airport : SFO.Airport State Reference : CA Altitude.MSL.Bound Lower : 2700 Altitude.MSL.Bound Upper : 2800

Environment

Flight Conditions : IMC

Aircraft : 1

Controlling Facilities.Tower : SFO.Tower Operator.Common Carrier : Air Carrier Make Model Name : A319 Operating Under FAR Part : Part 121 Navigation In Use.ILS.Localizer Only : 25R Flight Phase.Descent : Approach

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : First Officer Qualification.Pilot : ATP Experience.Flight Time.Last 90 Days : 200 Experience.Flight Time.Total : 11000 Experience.Flight Time.Type : 3500 ASRS Report : 801055

Person: 2

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Observation : Company Check Pilot Function.Oversight : PIC Experience.Flight Time.Last 90 Days : 180 Experience.Flight Time.Total : 14500 Experience.Flight Time.Type : 4800 ASRS Report : 801062

Events

Anomaly.Inflight Encounter : Wake Turbulence Independent Detector.Other.Flight CrewA : 1 Independent Detector.Other.Flight CrewB : 2 Resolutory Action.None Taken : Anomaly Accepted Consequence.Other : Physical Injury

Assessments

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

Narrative

WE WERE ON THE ILS RWY 28R TO SFO FOLLOWING A HEAVY FLT, A B777 WE BELIEVE. WE WERE APPROX 7 MILES IN TRAIL. WE WERE CLEARED THE APCH AND THE CAPT ASKED ME TO STAY ABOVE THE GS FOR WAKE TURBULENCE. I WAS BELOW IT ON ABOUT 15 MILE FINAL, BUT PROCEEDED TO CORRECT ABOVE IT. WE WERE ASKED TO LEVEL AT 3000 FT FOR TFC. WE DID AND THIS BROUGHT US WELL ABOVE THE GS. WHEN AGAIN CLEARED FOR THE APCH, I INITIATED AN OPEN DSCNT TO RECAPTURE THE GS. SHORTLY AFTER INITIATING THIS DSCNT AND STILL WELL ABOVE THE GLIDE PATH, I WOULD ESTIMATE AT 2700-2800 FT, THE ACFT ABRUPTLY ROLLED L. I IMMEDIATELY DISCONNECTED THE AUTOPLT AND CORRECTED BACK TO LEVEL. WE BOTH ASSUMED IT WAS WAKE TURBULENCE FROM THE B777 AHEAD, DUE TO THE SUDDENNESS, SEVERITY, AND FEEL OF THE ENCOUNTER. WE BOTH COMMENTED ON THE FACT THAT WE WERE ABOVE THE GLIDE PATH WHEN WE ENCOUNTERED IT, WHICH SEEMED STRANGE. ALTHOUGH THE WAKE ENCOUNTER WAS FAIRLY AGGRESSIVE, NEITHER OF US THOUGHT TO CALL THE BACK TO CHECK FOR INJURIES AND NO CALL CAME FROM THE FLT ATTENDANTS. WE LANDED ON RWY 28R WITHOUT FURTHER INCIDENT. WE WERE NOT TOLD OF ANY INJURIES BY ANY OF THE FLT ATTENDANTS ON OUR ARR. BOTH THE CAPT AND MYSELF WENT TO OPS TO FLT PLAN OUR NEXT LEG TO ZZZ. ON RETURN TO THE SAME GATE FOR OUR DEP TO ZZZ, THE CAPT SAW THE FLT ATTENDANT CREW FROM OUR PREVIOUS ARR AND LEARNED THAT ONE OF THE FLT ATTENDANTS IN THE REAR OF THE ACFT HAD SUSTAINED AN INJURY TO HIS SHOULDER. NEITHER OF US KNEW ABOUT THIS UNTIL WE RETURNED TO THE GATE AREA.

Synopsis

A319 FLT CREW ENCOUNTERS B777 WAKE TURBULENCE ON APCH TO SFO RESULTING IN A FLT ATTENDANT INJURY.

Time / Day

Date : 200808 Local Time Of Day : 0001 To 0600

Place

Locale Reference.Airport : ZZZ.Airport State Reference : US Altitude.AGL.Single Value : 100

Environment

Flight Conditions : VMC Light : Night

Aircraft : 1

Controlling Facilities.Tower : ZZZ.Tower Operator.Common Carrier : Air Carrier Make Model Name : MD-11 Operating Under FAR Part : Part 121 Flight Phase.Descent : Approach

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Experience.Flight Time.Last 90 Days : 40 Experience.Flight Time.Total : 18500 Experience.Flight Time.Type : 2000 ASRS Report : 799506

Person: 2

Affiliation.Company : Air Carrier Function.Flight Crew : First Officer Experience.Flight Time.Last 90 Days : 30 Experience.Flight Time.Total : 900 Experience.Flight Time.Type : 30 ASRS Report : 799507

Events

Anomaly.Incursion : Landing Without Clearance Anomaly.Incursion : Runway Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Non Adherence : Clearance Resolutory Action.None Taken : Anomaly Accepted

Assessments

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

Narrative

UPON ARR INTO ZZZ AIRSPACE WE REQUESTED RWY XXR DUE TO LIGHT WT, GS AND RAMP. DUE TO TFC WE HAD TO USE XXL. VECTORED FOR THE XXL ILS GS OTS AT 3000 FT. WE HAD SLOWED TO 155 KTS BUT WAS TOLD TO MAINTAIN 180 UNTIL INTXN. AT LOC CAPTURE WE DSNDED TO 2400 FT AND USING FPA STARTED DOWN, CROSSING RESTR AT 4.5 MILES WAS MADE OKAY, PRECEDING ACFT WAS AN MD11 AND WE WERE CLEARED TO LAND ABOUT 1 MILE OUT. 1000 FT FULLY CONFIGURED AND AT 500 FT I CALLED OUT 'ON SPEED, SINK 700 FT.' TFC LEVEL WAS HIGH WITH LOTS OF RADIO COMS. AT APPROX 100 FT WE GOT A BURBLE OF TURBULENCE FROM PRECEDING ACFT AND AT 50 FT WE EXPERIENCED A ROLL AND TURBULENCE DUE TO SLIGHT QUARTERING CROSSWIND. FO ADDED POWER TO RECOVER A SINK RATE AS I CALLED OUT SINK (THE SINK RATE WAS 1000 FPM) AND CONCENTRATED ON HANDLING ACFT IN TURBULENCE AND LNDG. WE NOTICED ON ROLLOUT THAT THE PREVIOUS MD11 WAS JUST FINISHING HIS TURN FROM THE HIGH SPEED TURN, B6 TO BRAVO TXWY. THERE WAS A DC8 ON TXWY CHARLIE AND I SURMISE THAT THE MD11 DELAYED HIS EXIT DUE TO THAT ACFT. WE ROLLED TO RWY INTXN AND EXITED. WE TAXIED DOWN TO RAMP AND PARKED. LATER, THE DUTY PLT LOOKED ME UP AND SAID THE TOWER SUPVR WANTED TO TALK WITH ME. I CALLED AND WAS ASKED IF WE HEARD THE CALL TO GAR AND NEITHER THE FO NOR I HEARD ANY CALL WITH OUR FLT NUMBER TO GAR. I LATER ASKED MY FO IF HE HEARD ANY CALL TO GAR AND HE AND I AGREED THAT IF THE WORDS WERE USED IT WAS DURING OUR LNDG WITH WAKE TURBULENCE AND DEFINITELY DIDN'T SPECIFY WHAT ACFT. THE TOWER SUPVR SAID THAT THE RWY WAS CLEAR. TFC FLOWS ARE SO TIGHT AT ZZZ DURING THE INBOUND THAT ANY DELAY BY ONE ACFT AFFECTS OTHERS ADVERSELY. DURING THE FLARE WITH WAKE TURBULENCE THE FIRST PRIORITY IS TO AVIATE.

Synopsis

MD11 FLT CREW LANDS AFTER ATCT HAD ALLEGEDLY ISSUED A GAR CLRNC DUE TO THE PRECEDING ACFT OCCUPYING THE RWY LONGER THAN EXPECTED.

Time / Day

Date : 200808 Local Time Of Day : 0001 To 0600

Place

Locale Reference.Airport : ZZZ.Airport State Reference : US Altitude.MSL.Single Value : 34000

Environment

Flight Conditions : VMC

Aircraft : 1

Controlling Facilities.ARTCC : ZZZ.ARTCC Operator.Common Carrier : Air Carrier Make Model Name : B757-200 Operating Under FAR Part : Part 121 Flight Phase.Cruise : Level

Aircraft : 2

Controlling Facilities.ARTCC : ZZZ.ARTCC Operator.Common Carrier : Air Carrier Make Model Name : B747 Undifferentiated or Other Model Operating Under FAR Part : Part 121 Flight Phase.Cruise : Level

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Experience.Flight Time.Last 90 Days : 180 Experience.Flight Time.Total : 20000 Experience.Flight Time.Type : 4500 ASRS Report : 798852

Events

Anomaly.Conflict : Airborne Less Severe Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Other Anomaly Independent Detector.Other.Flight CrewA : 1 Resolutory Action.Flight Crew : Regained Aircraft Control

Assessments

Problem Areas : Environmental Factor

Narrative

WHILE SMOOTH AT FL340 NEAR ZZZ, A B747 PASSED OPPOSITE DIRECTION AT FL350 AND JUST UPWIND OF US. SHORTLY THEREAFTER WE WERE HIT BY ITS WAKE. IT LASTED FOR JUST OVER A SECOND, BUT WAS FAIRLY STRONG. THIS WAS MY FIRST ENCOUNTER WITH WAKE UNDER RVSM. THE SEAT BELT SIGN WAS OFF AND PAX WERE UP. THE PURSER INITIALLY TOLD US EVERYONE WAS OK, BUT HE NEEDED TO TALK TO THE AFT FLT ATTENDANT AND A FEMALE PAX IN A LAV. HE CALLED US BACK SHORTLY THEREAFTER AND SAID NO ONE WAS HURT.

Synopsis

A B757 AT FL340 ENCOUNTERED A B747'S STRONG WAKE VORTEX AFTER IT PASSED OPPOSITE DIRECTION AT FL350.

Time / Day

Date : 200807 Local Time Of Day : 1201 To 1800

Place

Locale Reference.Airport : ZZZ.Airport State Reference : US Altitude.MSL.Single Value : 32000

Environment

Flight Conditions : VMC Light : Daylight

Aircraft : 1

Controlling Facilities.ARTCC : ZZZ.ARTCC Operator.General Aviation : Corporate Make Model Name : Gulfstream IV Operating Under FAR Part : Part 91 Flight Phase.Cruise : Level

Aircraft : 2

Controlling Facilities.ARTCC : ZZZ.ARTCC Operator.Common Carrier : Air Carrier Make Model Name : B777 Undifferentiated or Other Model Operating Under FAR Part : Part 121 Flight Phase.Cruise : Level

Person : 1

Affiliation.Company : Corporate Function.Flight Crew : Captain Function.Oversight : PIC Qualification.Pilot : ATP Qualification.Pilot : CFI Qualification.Pilot : Commercial Qualification.Pilot : Flight Engineer Qualification.Pilot : Instrument Qualification.Pilot : Multi Engine Experience.Flight Time.Last 90 Days : 60 Experience.Flight Time.Total : 8200 Experience.Flight Time.Type : 1400 ASRS Report : 798019

Events

Anomaly.Altitude Deviation : Excursion From Assigned Altitude Anomaly.Conflict : Airborne Less Severe Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Other Anomaly Independent Detector.Other.Flight CrewA : 1 Resolutory Action.Flight Crew : Exited Adverse Environment Resolutory Action.Flight Crew : Regained Aircraft Control Consequence.FAA : Reviewed Incident With Flight Crew

Assessments

Problem Areas : Airspace Structure Problem Areas : Environmental Factor

Narrative

WE WERE LEVEL AT CRUISE FL320 APPROX 40 MINUTES AFTER BLOCKING OUT FROM ZZZ. WX WAS NOT A FACTOR. WE SUDDENLY EXPERIENCED AN ABRUPT ROLL TO THE R TO APPROX 45 DEGS AND THEN AN ABRUPT TURN TO THE L, AUTOPILOT DISENGAGED AND WE AGAIN ROLLED BACK TO THE R WHERE I WAS THEN ABLE TO CTL THE ACFT. I DID NOT TAKE SPECIFIC NOTE OF THE EXACT ALTITUDE LOSS SINCE I WAS MORE CONCERNED WITH GETTING THE ACFT UPRIGHT BUT IT WAS NOT SIGNIFICANT, APPROX 200-300 FT. I RPTED IT TO CENTER AND WAS TOLD THEY DSNDED A B777 9 MILES IN FRONT OF US. WINDS WERE 230/50 (45 KT DIRECT HEADWIND). WE WERE EVENTUALLY SWITCHED TO THE NEXT SECTOR (STILL CENTER) AND DSNDED TO FL280 (NOT SURE EXACT ALTITUDE) WHEN ABOUT 15-20 MINUTES AFTER THE FIRST ENCOUNTER WE AGAIN EXPERIENCED THE SECOND EPISODE OF WAKE TURBULENCE. THIS TIME I TOOK CTL OF THE ACFT AND PROCEEDED ON AN OFFSET TO THE R OF COURSE. I INFORMED CENTER AND WAS CLEARED FOR A 5 MILE OFFSET. THE WINDS THIS TIME WERE 31 KTS DIRECT HEADWIND. I SPOKE WITH THE CENTER CHIEF. I DID RECEIVE A CALL FROM THE CENTER SAFETY OFFICE AND SPOKE WITH HIM AT GREAT LENGTH ABOUT THE INCIDENT. THEY INFORMED ME THEY ALSO HAD ANOTHER INCIDENT WITH A GIV AND B747 WITHIN A FEW DAYS OF OUR ENCOUNTER. I SUSPECT MANY OF THESE ENCOUNTERS ARE NOT BEING RPTED. WE WERE FORTUNATE NO ONE WAS INJURED ON OUR ACFT, BUT UNDER DIFFERENT CIRCUMSTANCES THEY COULD HAVE BEEN.

Synopsis

A G4 AT FL320 FOLLOWING A B777 BY NINE MILES EXPERIENCED WAKE VORTEX UPSET WITH A 45 DEG ROLL AND 200-300 FT ALT LOSS.

Time / Day

Date : 200807 Local Time Of Day : 1201 To 1800

Place

Locale Reference.Airport : ZZZ.Airport State Reference : US Altitude.MSL.Single Value : 35000

Environment

Aircraft : 1

Controlling Facilities.ARTCC : ZZZ.ARTCC Operator.Common Carrier : Air Carrier Make Model Name : A319 Operating Under FAR Part : Part 121 Flight Phase.Descent : Vacating Altitude Route In Use.Arrival.STAR : N/S

Aircraft : 2

Controlling Facilities.ARTCC : ZZZ.ARTCC Operator.Common Carrier : Air Carrier Make Model Name : B767 Undifferentiated or Other Model Operating Under FAR Part : Part 121 Flight Phase.Descent : Intermediate Altitude

Person : 1

Affiliation.Company : Air Carrier Function.Flight Crew : First Officer Qualification.Pilot : ATP Experience.Flight Time.Last 90 Days : 200 Experience.Flight Time.Total : 11000 ASRS Report : 797833

Person : 2

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Experience.Flight Time.Last 90 Days : 95 Experience.Flight Time.Total : 10000 Experience.Flight Time.Type : 5000 ASRS Report : 797832

Events

Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Other Anomaly Independent Detector.Other.Flight CrewA : 1 Independent Detector.Other.Flight CrewB : 2 Resolutory Action.Flight Crew : Exited Adverse Environment Resolutory Action.Flight Crew : Regained Aircraft Control

Assessments

Problem Areas : Airspace Structure Problem Areas : Environmental Factor Problem Areas : Flight Crew Human Performance

Narrative

WE HAD BEEN CLEARED DIRECT ABC AND MAINTAIN 260 KIAS. LATER WE WERE CLEARED TO DSND. WE STARTED OUR DSCNT OUT OF FL360. AT ABOUT FL350. WE HAD A WAKE ENCOUNTER OF ABOUT 25 DEGS RIGHT WITH THE AUTOPLT ON. CAPT CALLED 'ATTITUDE.' I DISCONNECTED THE AUTOPLT AND CHANGED THE DSCNT RATE. I HAD TO USE ABOUT FULL LEFT SIDESTICK TO STOP THE ROLL. ONCE THE ACFT RESPONDED TO MY INPUTS, I RETURNED THE ACFT TO WINGS LEVEL FLT. WE RPTED THE ENCOUNTER TO ATC AND ASKED FOR AN OFFSET, INITIALLY RIGHT, BUT I POINTED OUT THAT THE WIND WAS FROM THE LEFT AND THEN WE RECEIVED A CLEARANCE TO OFFSET 1 MILE LEFT (UPWIND) UNTIL WE WERE CLEARED DIRECT TO ANOTHER FIX. WE ALSO ASKED WHAT WE WERE FOLLOWING (A COMPANY B767) WHO WAS ABOUT 20 AHEAD ON THE TCAS AND, AT THAT TIME, 2600 FT BELOW US. I BELIEVE THAT THE ACFT WOULD HAVE ROLLED EVEN FURTHER HAD WE NOT DISCONNECTED THE AUTOFLT SYSTEM AND PITCHED UP OUT OF THE WAKE. THE AIR WAS VERY SMOOTH, SO THE WAKE DID NOT DECAY TO A SAFE STRENGTH OVER THE 2.5 TO 3 MINUTES TIME FOR US ENCOUNTER IT. WE MUST HAVE BEEN BELOW THE DSCNT PATH OF THE B767 AND DOWNWIND OF WHERE HE WAS. THE DIRECT TO ABC HAD TAKEN US SLIGHTLY OFF THE STAR (PROBABLY CAUSED THE DOWNWIND). WINDS WERE 207/31 ON THE ND. WE DID ASK THE FLT ATTENDANTS IF THEY, OR ANYONE, WAS HURT. NO ONE WAS. I THINK THEY MAY HAVE BEEN SHOOK UP, BUT THE WHOLE EVENT WAS FAIRLY SMOOTH, BUT OBVIOUSLY NOT CTLED FOR A SHORT PERIOD OF TIME. (SCARY IN THE BACK, I AM SURE.) LATER, WE WENT AROUND AT ZZZ BECAUSE WE WOULD NOT CALL THE VISUAL ON THE SAME TFC, (THOUGH WE WERE VISUAL ON AN ACFT SLIGHTLY AHEAD OF US FOR THE PARALLEL RWY).

Synopsis

AN A319 DSNDING THROUGH FL350 FOLLOWING A B767 BY 20 MILES ENCOUNTERED WAKE VORTEX AND ROLLED ABOUT 25 DEGS.

Time / Day

Date : 200807 Local Time Of Day : 1201 To 1800

Place

Locale Reference.Airport : LGA.Airport State Reference : NY Altitude.MSL.Single Value : 7000

Environment

Weather Elements : Turbulence

Aircraft : 1

Controlling Facilities.TRACON : N90.TRACON Operator.Common Carrier : Air Carrier Make Model Name : B757-200 Operating Under FAR Part : Part 121 Flight Phase.Descent : Intermediate Altitude

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Qualification.Pilot : ATP Experience.Flight Time.Last 90 Days : 270 Experience.Flight Time.Total : 20000 Experience.Flight Time.Type : 1100 ASRS Report : 797785

Person: 2

Affiliation.Company : Air Carrier Function.Flight Attendant : On Duty Qualification.Flight Attendant : Currently Qualified

Events

Anomaly.Inflight Encounter : Wake Turbulence Resolutory Action.None Taken : Detected After The Fact Consequence.Other : Physical Injury

Assessments

Problem Areas : Weather

Narrative

WHILE PROCEEDING DIRECT LGA AT 7000 FT AND GETTING AN ASSIGNED HEADING (CAPTAIN PF) AT 250 KTS ASSIGNED, WE ENCOUNTERED ONE MODERATE JOLT APPROX TWO MINUTES AFTER GIVING FLT ATTENDANT THE PREPARE FOR LANDING WARNING IN OTHERWISE SMOOTH INCLOUD WEATHER. BOTH PF AND PNF HAD WX RADAR ON AND SHOWED NO ECHOES. COCKPIT WAS NOTIFIED OF FLT ATTENDANT INJURY IN AFT GALLEY. PNF CALLED LGA AND REQUESTED MEDICAL MEET THE AIRCRAFT. UPON ARRIVAL, AN IN-FLIGHT SUPERVISOR MET THE AIRCRAFT FOLLOWED BY POLICE. TEN MINUTES PASSED UNTIL MEDICAL ARRIVED TO ASSIST FLT ATTENDANT WHO WAS TRANSPORTED BY PARAMEDICS TO HOSPITAL. FLT ATTENDANT 2 ALSO HAD COMPLAINED OF BACK STIFFNESS BUT ELECTED TO SEE HER PRIVATE PRACTITIONER. SUSPECT WAKE TURBULENCE RATHER THAN WEATHER PHENOMENA CAUSE OF INCIDENT.

Synopsis

TWO CABIN ATTENDANTS ARE INJURED AS A RESULT OF WAKE TURBULENCE ENCOUNTER DURING ARRIVAL INTO NEW YORK.

Time / Day

Date : 200807 Local Time Of Day : 1801 To 2400

Place

Locale Reference.Airport : LAS.Airport State Reference : NV Altitude.MSL.Single Value : 34500

Environment

Flight Conditions : VMC Light : Daylight

Aircraft : 1

Controlling Facilities.ARTCC : ZLA.ARTCC Operator.General Aviation : Corporate Make Model Name : Citation II S2/Bravo Operating Under FAR Part : Part 91 Flight Phase.Climbout : Intermediate Altitude

Aircraft : 2

Controlling Facilities.ARTCC : ZLA.ARTCC Operator.Common Carrier : Air Carrier Make Model Name : B757 Undifferentiated or Other Model Operating Under FAR Part : Part 121 Flight Phase.Climbout : Intermediate Altitude

Person: 1

Affiliation.Company : Corporate Function.Flight Crew : Captain Function.Oversight : PIC Qualification.Pilot : ATP Experience.Flight Time.Last 90 Days : 150 Experience.Flight Time.Total : 5000 Experience.Flight Time.Type : 1700 ASRS Report : 795623

Events

Anomaly.Inflight Encounter : Wake Turbulence Independent Detector.Other.Flight CrewA : 1 Resolutory Action.Flight Crew : Diverted To Another Airport Resolutory Action.Flight Crew : Landed As Precaution Consequence.Other : Aircraft Damaged

Assessments

Problem Areas : ATC Human Performance Problem Areas : Environmental Factor

Narrative

WE WERE MUCH LOWER THAN EXPECTED AND WERE ISSUED STEP CLBS IN ORDER TO FACILITATE EASTBOUND TFC OUT OF THE LA AREA. WE WERE EAST OF LAS BY 20 NM HEADING TOWARDS NORRA INTXN AT 33000 FT. WE WERE ISSUED A CLB TO FL350 BY ATC. DURING THE CLB AT FL345, WE ENTERED THE WAKE OF A 757 (ATC SAID THEY WERE 8 MILES AHEAD) AND THE ACFT SNAPPED SHARPLY TO THE RIGHT (APPROX 90-100 DEGS), THE AUTOPLT KICKED OFF AND WE RIGHTED THE ACFT. CAPT WAS PNF, FO WAS PF. AFTER LETTING ATC KNOW WHAT HAPPENED, WE WERE GIVEN A HEADING OFF THE AIRWAY AND THEN GIVEN A 'DIRECT TO' FURTHER DOWN OUR FILED RTE. AFTER CALLING DISPATCH AND MAINT, WE DECIDED TO DIVERT TO A SVC CENTER IN ORDER TO HAVE THE ACFT LOOKED AT. LARGE INDENTATIONS APPEARED IN THE WING UPPER SURFACE ON EACH WING -- 1 FOOT FORWARD OF THE TRAILING EDGE AND 3 TO 4 FT FROM THE FUSELAGE. THERE WAS ALSO A SMALLER SET OF INDENTATIONS ON THE UNDERSIDE OF EACH WING 6 FT FROM THE TIP AND 6 TO 8 INCHES BACK FROM THE LEADING EDGE.

Synopsis

A C550 ENCOUNTERED WAKE TURBULENCE FROM A B757 AND ROLLED SHARPLY 90-100 DEG. AFTER CONFERRING WITH DISPATCH AND MAINT THE FLT CREW DIVERTED TO ANOTHER ARPT.

Time / Day

Date : 200807 Local Time Of Day : 0601 To 1200

Place

Locale Reference.Airport : HPN.Airport State Reference : NY Altitude.MSL.Single Value : 2800

Environment

Flight Conditions : VMC Light : Daylight

Aircraft : 1

Controlling Facilities.Tower : HPN.Tower Operator.General Aviation : Personal Make Model Name : Bonanza 36 Operating Under FAR Part : Part 91 Flight Phase.Cruise : Level

Person: 1

Affiliation.Other : Personal Function.Flight Crew : Single Pilot Qualification.Pilot : Instrument Qualification.Pilot : Multi Engine Qualification.Pilot : Private Experience.Flight Time.Last 90 Days : 25 Experience.Flight Time.Total : 1900 Experience.Flight Time.Type : 900 ASRS Report : 795431

Events

Anomaly.Airspace Violation : Entry Anomaly.Inflight Encounter : Wake Turbulence Independent Detector.Other.Flight CrewA : 1 Resolutory Action.Flight Crew : Exited Penetrated Airspace

Assessments

Problem Areas : Flight Crew Human Performance

Narrative

SITUATION INVOLVING POSSIBLE DELTA AIRSPACE INCURSION WHILE ON VFR FLT UP COASTLINE. SUBJECT ENCOUNTERED WAKE TURBULENCE FROM LNDG JET TFC. CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO: RPTR SAID THAT HIS MOVING MAP DID NOT HAVE THE EXTENSION OF THE AIRSPACE THAT HE ENTERED DEPICTED. HE WAS FLYING PERPENDICULAR TO THE TFC CROSSING THEIR TRACK. THE WAKE TURBULENCE WAS SEVERE ENOUGH THAT HE AND HIS PAX HIT THEIR HEADS ON THE CEILING OF THE ACFT WITHOUT INJURY. THERE WAS NO LOSS OF ACFT CTL.

Synopsis

INADVERTENT ENTRY INTO CLASS D AIRSPACE LEADS TO AN ENCOUNTER WITH THE WAKE OF ARRIVING JET TFC.

Time / Day

Date : 200807 Local Time Of Day : 0601 To 1200

Place

Locale Reference.Airport : ZZZ.Airport State Reference : US Altitude.AGL.Single Value : 100

Environment

Flight Conditions : VMC Light : Daylight

Aircraft : 1

Controlling Facilities.Tower : ZZZ.Tower Operator.Common Carrier : Air Carrier Make Model Name : Dash 8-100 Operating Under FAR Part : Part 121 Flight Phase.Climbout : Initial

Aircraft : 2

Operator.Common Carrier : Air Carrier Make Model Name : A319 Operating Under FAR Part : Part 121 Flight Phase.Climbout : Initial

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Qualification.Pilot : ATP Qualification.Pilot : CFI Qualification.Pilot : Multi Engine Experience.Flight Time.Last 90 Days : 155 Experience.Flight Time.Total : 3925 Experience.Flight Time.Type : 2390 ASRS Report : 795365

Person : 2

Affiliation.Company : Air Carrier Function.Flight Crew : First Officer Qualification.Pilot : Commercial Qualification.Pilot : Flight Engineer Qualification.Pilot : Instrument Qualification.Pilot : Multi Engine Experience.Flight Time.Last 90 Days : 250 Experience.Flight Time.Total : 5190 Experience.Flight Time.Type : 315 ASRS Report : 795371

Events

Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Non Adherence : Published Procedure Anomaly.Other Anomaly : Speed Deviation Independent Detector.Other.Flight CrewA : 1 Independent Detector.Other.Flight CrewB : 2 Resolutory Action.None Taken : Detected After The Fact

Assessments

Problem Areas : Cabin Crew Human Performance Problem Areas : Flight Crew Human Performance

Narrative

I BELIEVE THAT THE LACK OF ADEQUATE REST WAS A SIGNIFICANT CONTRIBUTING FACTOR IN THE EVENTS THAT UNFOLDED TODAY. THEREFORE THIS RPT STARTS WITH THE DETAILS SURROUNDING THE OVERNIGHT THE PRECEDING DAY. UPON ARR AT THE ARPT, THE VAN DRIVER TOLD US THAT WE WERE GOING TO BE STAYING AT A DIFFERENT HOTEL THAN EXPECTED. THE HOTEL HAD 12 BASKETBALL TEAMS STAYING IN IT. WITHIN MINUTES OF ARR, AND REALIZING IT WAS GOING TO BE NOISY. I CALLED THE FRONT DESK INQUIRING AS TO THE REASON FOR THE NOISE AND WHAT THEY WOULD DO ABOUT IT. I TRIED TO TAKE A NAP, AND WAS UNABLE TO DO SO BECAUSE OF THE NOISE IN THE HALLWAY. I LEFT THE HOTEL FOR A WALK, CAME BACK, AND IT WAS STILL NOISY. AGAIN I CALLED THE FRONT DESK, AND WAS TOLD THAT THERE WERE NO OTHER ROOMS AVAILABLE. AFTER TRYING TO SLEEP WITH NO LUCK I MADE TWO MORE CALLS TO THE FRONT DESK, THEY FINALLY FOUND ME ANOTHER ROOM AFTER 11 O'CLOCK AT NIGHT. EARLIER THAT AFTERNOON, I HAD CALLED ANOTHER HOTEL, AND ASKED FOR ROOMS THERE FOR THE NIGHT. THEY WERE FULL AND SAID THERE WERE NO ROOMS AVAILABLE. I CALLED MY FO ABOUT THE NOISE, HE TOLD ME THAT HE COULD HEAR IT OVER HIS IPOD, AND THAT HE WOULD BE WILLING TO MOVE IF I COULD FIND US ROOMS. BACKING UP, I HAD CALLED SCHEDULING AHEAD OF ALL THIS, INFORMING THEM OF THE NOISE, AND THAT I MIGHT BE TIRED IN THE MORNING. AT MY BEST ESTIMATE I MIGHT HAVE GOTTEN 3 HOURS OF SLEEP ALL SAID AND DONE. I MET THE REST OF MY CREW IN THE MORNING AND WE ALL DISCUSSED HOW TIRED WE WERE DUE TO THE NOISE IN THE HOTEL AND LACK OF REST. I STILL FELT TIRED ON THE FIRST FLIGHT TO ZZZ2, AND THE NEXT FLIGHT TO ZZZ. THINGS RAN AS NORMAL BUT UNFORTUNATELY WE DID HAVE A HOT ACFT, WHICH DID NOT HELP. WE ENDED UP TAXIING OUT TO RWY 31, AFTER BEING GIVEN POSITION AND HOLD, TOWER CLEARED US FOR TAKEOFF WITH THE STIPULATION TO KEEP THE PREVIOUS DEP IN SIGHT. WE ENDED UP DOING A ROLLING TAKEOFF, AND MANAGED TO HIT THE PRECEDING AIRBUS 319'S WAKE RIGHT AFTER ROTATION. THIS CAUSED A SIGNIFICANT DISTRACTION IN THE COCKPIT, AND I CAN'T RECALL IF MY FO SAID POSITIVE RATE OR NOT, IF I SAID GEAR UP OR NOT, OR WE BOTH JUST MISSED IT. WE TURNED TO THE 340 HEADING AFTER TAKEOFF AND THE REST OF THE CALLS WERE AS NORMAL. DURING CLBOUT AND CRUISE I NOTICED ABNORMALLY LOW ACFT PERFORMANCE, BUT ATTRIBUTED IT TO ISA+15 CONDITIONS. AS TIRED AS I WAS, I DIDN'T EVEN BEGIN TO THINK ABOUT THE

GEAR BEING DOWN. THE CLBOUT WAS STEEP IN AN EFFORT TO GET A TURN ON COURSE, AND ONCE AT CRUISE SPEED WAS NOTICED TO BE NO MORE THAN 160 KIAS AT 14000 FT. AGAIN, I JUST THOUGHT IT WAS THE HIGH TEMPERATURES THAT WERE CAUSING THE LOW PERFORMANCE. WE DIDN'T NOTICE THAT THE GEAR WAS DOWN UNTIL I SAID 'GEAR DOWN' ON APCH INTO ZZZ. WE HAD A SHORT TURN IN ZZZ2 AND DISCUSSED IF WE THOUGHT WE EXCEEDED ANY LIMITATIONS AND WE DECIDED THAT WE DIDN'T THEREFORE I ELECTED TO CONTINUE BACK TO ZZZ1. WE TURNED THE AIRPLANE IN ZZZ2. DEPARTED FOR ZZZ1, AND THE ENTIRE FLT I WAS STRUGGLING TO STAY FOCUSED. I STARTED TO THINK ABOUT THE SPEED LIMITATIONS AND RECALL NOTING THE SPEED IN CLB AND CRUISE BEING WITHIN LIMITATIONS BUT I THEN STARTED THINKING ABOUT THE DSCNT PHASE AND COULD NOT REMEMBER THE INDICATED SPEED AS WE GOT TO A LOWER ALTITUDE. I NEVER RECALLED THE SPEED OVER 172 BUT I STARTED TO THINK ABOUT THE ACFT'S PERFORMANCE IN A DSCNT REALIZED THERE WAS A DISTINCT POSSIBILITY IT MIGHT HAVE BEEN EXCEEDED IN THE DSCNT. IT WAS AT THAT POINT I KNEW I HAD TO CONTACT MAINT UPON ARR IN ZZZ1. WHEN I LOOK BACK ON THE EVENT I REALIZE I SHOULD HAVE INFORMED SCHEDULING FIRST THING IN THE MORNING WE NEEDED ADDITIONAL REST. BUT. I TRY TO MAKE THINGS WORK WHEN I CAN. WITH THE STATE OF THE AIRLINE INDUSTRY THE WAY IT IS AND WITH PERFORMANCE BEING SUCH A HUGE FACTOR IN WHO SURVIVES AND DOESN'T IN THIS INDUSTRY I MADE A POOR DECISION TO SERVE OUR PAX INSTEAD OF LISTENING TO AND ATTENDING TO MY PHYSICAL NEED FOR REST AND MY CREWS. SUPPLEMENTAL INFO FROM ACN 795371: ON A RIGHT BASE FOR RWY 33R IN ZZZ2, CAPT CALLED FOR GEAR DOWN, I REACHED FOR THE HANDLE AND SAW IT WAS DOWN ALREADY. WE BOTH LOOKED AT EACH OTHER IN DISBELIEF, BUT WE WERE ON SHORT FINAL AND WERE OCCUPIED WITH THAT FOR THE MOMENT. EXTREMELY SHORT TURN IN ZZZ2 AS WE WERE LATE ARRIVING. WE DISCUSSED IF ANY LIMITATIONS WERE EXCEEDED OR NOT DURING FLT WITH THE GEAR DOWN, AND DECIDED THAT THEY WERE NOT. AFTER GATE ARR IN ZZZ, I FELT A CHAIN OF ERRORS WAS DEVELOPING THAT COULD LEAD TO AN ACCIDENT AND WAS RELIEVED THE CAPT DECIDED TO PUT A STOP TO THE DAY AND DECLARE WHAT HAD HAPPENED. BEING FATIGUED AND DISTRACTED ON TAKEOFF WAS NO EXCUSE FOR LACK OF MY CHKLIST DISCIPLINE.

Synopsis

A DASH 8 FLT CREW RPTED THAT AFTER A POOR NIGHT'S SLEEP IN A NOISY HOTEL THEY INADVERTENTLY FLEW A ONE HOUR LEG WITH THE GEAR DOWN.
Time / Day

Date : 200807 Local Time Of Day : 1201 To 1800

Place

Locale Reference.Airport : ZZZ.Airport State Reference : US Altitude.MSL.Single Value : 32000

Environment

Flight Conditions : VMC

Aircraft : 1

Controlling Facilities.ARTCC : ZZZ.ARTCC Operator.Common Carrier : Air Carrier Make Model Name : MD-80 Series (DC-9-80) Undifferentiated or Other Model Operating Under FAR Part : Part 121 Flight Phase.Cruise : Level

Aircraft : 2

Controlling Facilities.ARTCC : ZZZ.ARTCC Operator.Common Carrier : Air Carrier Make Model Name : MD-80 Series (DC-9-80) Undifferentiated or Other Model Operating Under FAR Part : Part 121 Flight Phase.Cruise : Level

Person : 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Qualification.Pilot : ATP Experience.Flight Time.Last 90 Days : 110 Experience.Flight Time.Total : 12865 Experience.Flight Time.Type : 7600 ASRS Report : 794345

Person: 2

Affiliation.Company : Air Carrier Function.Flight Crew : First Officer Qualification.Pilot : ATP ASRS Report : 794344

Events

Anomaly.Altitude Deviation : Excursion From Assigned Altitude Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Non Adherence : Published Procedure Independent Detector.Other.Flight CrewA : 1 Independent Detector.Other.Flight CrewB : 2 Resolutory Action.None Taken : Unable

Assessments

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

Narrative

WE WERE LEVEL AT FL320 IN TRAIL OF AN MD80 AND ENCOUNTERED WAKE TURB WITH APPROX 300 FOOT ALTITUDE DEV AND 30 DEG R ROLL. I TURNED OFF THE AUTOPLT AND CONTINUED THE R TURN TO GAIN SEPARATION. WHILE THIS WAS HAPPENING, WE COORDINATED THE TURN WITH ATC AND REQUESTED A RETURN TO FL300. ATC GAVE US PERMISSION TO DSND AND WE CONTINUED THE FLT AT FL300 FOR ABOUT 30 MINUTES AND THEN CLBED TO FLT PLAN ALTITUDE OF FL340. THE WAKE TURB WAS ENCOUNTERED WITH PROPER IN-TRAIL SPACING BUT OUR ACFT WAS 200-300 FT LOW DUE TO ALL ALTIMETERS BEING SET INCORRECTLY. AT TRANSITION ALTITUDE, THE FO WAS ANSWERING A CALL FROM THE BACK AND THE CAPT WAS ACCEPTING A FREQUENCY CHANGE FROM CENTER. DURING THE RADIO AND PA CALLS, THE ALTIMETER CALL WAS MISSED AND REMAINED AT THE FIELD SETTING.

Synopsis

AN MD80 FLT CREW ENCOUNTERED WAKE TURBULENCE FROM ANOTHER MD80 AT ALTITUDE, RESULTING IN ALT DEV AND ROLL.

Time / Day

Date : 200807 Local Time Of Day : 1201 To 1800

Place

Locale Reference.Airport : EDDM.Airport State Reference : FO Altitude.MSL.Single Value : 27000

Environment

Weather Elements.Other

Aircraft : 1

Controlling Facilities.ARTCC : EDMM.ARTCC Operator.Common Carrier : Air Carrier Make Model Name : B767-300 and 300 ER Operating Under FAR Part : Part 121 Flight Phase.Climbout : Intermediate Altitude

Aircraft : 2

Controlling Facilities.ARTCC : EDMM.ARTCC Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer Flight Phase.Climbout : Intermediate Altitude

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Qualification.Pilot : ATP Experience.Flight Time.Last 90 Days : 90 Experience.Flight Time.Total : 15000 Experience.Flight Time.Type : 4000 ASRS Report : 793775

Events

Anomaly.Inflight Encounter : Wake Turbulence Independent Detector.Other.Flight CrewA : 1 Resolutory Action.None Taken : Unable

Assessments

Problem Areas : ATC Human Performance Problem Areas : Environmental Factor

Narrative

FL270 ABOUT 15 MIN AFTER DEP FROM EDDM WE CROSSED SOMEONE'S WAKE AND HIT BUMP, LASTING 1 SEC MAX. THE SEATBELT SIGN WAS STILL ON, THE

FLIGHT ATTENDANTS HAD JUST GOT UP TO START THEIR JOBS. THREE OF THEM FELL TO THE FLOOR. THE PURSER TOLD ME EVERYTHING WAS FINE, BUT THEY WOULD LIKE A SUPVR TO MEET THE FLT IN ZZZ. THIS WAS DUE TO THE CONCERN OF ANY PROBLEM LATER AND NOT BEING ABLE TO PROVE IT WAS WORK RELATED. I ASKED IF THEY WANTED MEDICAL TO MEET FLT AND THEY SAID THEY WERE FINE.

Synopsis

A B767-300 ENCOUNTERED WAKE TURBULENCE ON CLBOUT FROM EDDM, THROWING THREE FLT ATTENDANTS TO THE FLOOR.

Time / Day

Date : 200807 Local Time Of Day : 0001 To 0600

Place

Locale Reference.ATC Facility : CZEG.ARTCC State Reference : AB Altitude.MSL.Single Value : 34000

Environment

Flight Conditions : IMC

Aircraft : 1

Controlling Facilities.ARTCC : CZEG.ARTCC Operator.Common Carrier : Air Carrier Make Model Name : B757-200 Operating Under FAR Part : Part 121 Flight Phase.Cruise : Level

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Experience.Flight Time.Last 90 Days : 170 Experience.Flight Time.Total : 20000 Experience.Flight Time.Type : 5000 ASRS Report : 793628

Events

Anomaly.Inflight Encounter : Wake Turbulence Independent Detector.Other.Flight CrewA : 1 Resolutory Action.None Taken : Insufficient Time Consequence.Other : Physical Injury

Assessments

Problem Areas : Environmental Factor

Narrative

WE WERE AT CRUISE AT FL340 IN AND OUT OF THE CLOUD LAYER. DID NOT SEE APPROACHING ACFT AT FL350 DUE TO CLOUD LAYER, BUT SHORTLY AFTER IT PASSED WE BROKE OUT ENOUGH TO SEE A THICK CONTRAIL DSNDING ONTO US. I GRABBED THE YOKE WHILE THE FO CYCLED THE SEAT BELT SIGN A FEW TIMES AND MADE A QUICK ANNOUNCEMENT. WE ENCOUNTERED WHAT WOULD BE MODERATE TURBULENCE WITH A SLIGHT ROLLING MOTION FOR A FEW SECONDS. AFTER THE ENCOUNTER WE CALLED THE PURSER TO SEE IF EVERYONE WAS OKAY AND WERE TOLD YES. LATER IT WAS RPTED TO US THAT TWO FLT ATTENDANTS IN THE REAR GALLEY WERE KNOCKED TO THE FLOOR AND HAD SORE BACKS.

Synopsis

A B757-200 ENCOUNTERED WAKE TURBULENCE FROM AN OPPOSITE DIRECTION ACFT THAT KNOCKED SEVERAL FLT ATTENDANTS OFF THEIR FEET.

Time / Day

Date : 200806 Local Time Of Day : 1201 To 1800

Place

Locale Reference.Airport : ZZZ.Airport State Reference : US Altitude.MSL.Single Value : 5000

Environment

Flight Conditions : VMC Light : Daylight

Aircraft : 1

Controlling Facilities.TRACON : ZZZ.TRACON Operator.Common Carrier : Air Carrier Make Model Name : EMB ERJ 145 ER&LR Operating Under FAR Part : Part 121 Flight Phase.Descent : Approach Route In Use.Arrival : On Vectors

Aircraft : 2

Controlling Facilities.TRACON : ZZZ.TRACON Make Model Name : B777 Undifferentiated or Other Model Flight Phase.Descent : Approach

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Qualification.Pilot : ATP Experience.Flight Time.Last 90 Days : 100 Experience.Flight Time.Total : 16500 Experience.Flight Time.Type : 3500 ASRS Report : 793336

Events

Anomaly.Inflight Encounter : Wake Turbulence Independent Detector.Other.Flight CrewA : 1 Resolutory Action.None Taken : Unable

Assessments

Problem Areas : Environmental Factor

Narrative

ABOUT 10 MINUTES FROM LNDG WHILE ON VECTORS TO FINAL AT 5000 FT MSL WE ENCOUNTERED A SHARP MODERATE ROLL TO STARBOARD APPROX 20 DEGS AOB FOLLOWED BY A SECOND, LESSER INTENSITY ROLL OF ABOUT 10 DEGS. THE ENCOUNTER WAS WHILE LEVEL AND IN CLEAR AIR. I WAS CERTAIN NO DAMAGE WAS DONE TO THE ACFT BUT THE SURPRISING SUDDENNESS OF THE ROLL AND THE AOB CAUSED ME TO BE CONCERNED ENOUGH TO CHECK ON MY FLT ATTENDANT. SHE STATED SHE'D BANGED HER JAW AND SIDE OF HEAD AGAINST THE OVERHEAD LIGHTING BANK ON THE PORT SIDE OF THE ACFT (THE LIGHTS OVER THE 'A' SEAT ROW), BUT FELT OKAY AT THE MOMENT. WE LANDED WITHOUT FURTHER INCIDENT. WAKE TURBULENCE OFF ACFT OF UNKNOWN TYPE. SUSPECT B777 WHICH LANDED 5-7 MILES AHEAD ON RWY XXC.

Synopsis

AN EMB-145 FLT CREW ENCOUNTERED WAKE TURBULENCE ON APCH BEHIND A B777.

Time / Day

Date : 200806 Local Time Of Day : 1801 To 2400

Place

Locale Reference.Airport : LAX.Airport State Reference : CA Altitude.MSL.Single Value : 1600

Environment

Flight Conditions : VMC Light : Dusk

Aircraft : 1

Controlling Facilities.Tower : LAX.Tower Operator.Common Carrier : Air Carrier Make Model Name : B737-700 Operating Under FAR Part : Part 121 Flight Phase.Descent : Approach

Aircraft : 2

Controlling Facilities.Tower : LAX.Tower Operator.Common Carrier : Air Carrier Make Model Name : B747 Undifferentiated or Other Model Operating Under FAR Part : Part 121 Flight Phase.Descent : Approach

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Qualification.Pilot : ATP Experience.Flight Time.Last 90 Days : 151 Experience.Flight Time.Total : 30000 Experience.Flight Time.Type : 17000 ASRS Report : 792808

Person : 2

Affiliation.Government : FAA Function.Controller : Local

Events

Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Other Spatial Deviation Independent Detector.Other.ControllerB : 2 Resolutory Action.Flight Crew : Returned To Intended or Assigned Course

Assessments

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

Narrative

INBOUND TO LAX WE WERE PRECEDED BY A HEAVY 747. WE ENCOUNTERED TURBULENCE/WAKE SEVERAL TIMES FROM N OF SMO VORTAC. APCH ASKED IF WE COULD TURN IN AT THE MARKER AND WE SAID WE COULD WHICH WOULD PUT US INSIDE OF THE 747. THE FO DID A VERY GOOD JOB OF CONFIGURING THE PLANE AND WAS STABLE AND ON A PROPER INTERCEPT TO THE LOC. AFTER THE HANDOFF TO TWR THE FREQ WAS BUSY. I DECIDED TO CHECK THE TCAS DISPLAY TO SEE HOW CLOSE THE FOLLOWING 747 WAS. AS I CHECKED THE TCAS LAX TWR ASKED IF WE WERE CORRECTING OUR COURSE. I REALIZED THAT WE HAD NOT TURNED IN AND WERE STARTING TO ENCROACH ON THE S SIDE APCH AIRSPACE. WHILE WE WERE MORE THAN 2 HRS DELAYED DUE TO SINGLE RWY LNDG OPS AT ZZZ THE DELAY WAS NOT A FACTOR. I SHOULD HAVE DONE A BETTER JOB OF PRIORITIZING MY MONITORING PRIORITIES. INTERCEPTING THE LOCALIZER WAS FAR MORE IMPORTANT THAN THE SPACING OF AN ACFT IN TRAIL. IN RETROSPECT, I ALSO THINK I WILL AND WILL ENCOURAGE OTHER PLTS TO USE THE CWS MODE OF THE AUTOPLT WITH THE LOC (AT MINIMUM) OR APCH MODE ARMED INSTEAD OF HAND FLYING. THIS WILL HELP TO ENSURE THE INTERCEPT AND TO ESTABLISH THE PROPER INITIAL GROUND TRACK. ONCE ESTABLISHED INBOUND, HAND FLYING WITH THE AUTOPLT OFF WOULD BE OK. A GREAT JOB BY LAX TOWER ON THE HEADS UP ALSO.

Synopsis

B737 FLT CREW OVERSHOOTS RWY 24R ON APCH TO LAX.

Time / Day

Date : 200806 Local Time Of Day : 1801 To 2400

Place

Locale Reference.Airport : ZZZ.Airport State Reference : US Altitude.MSL.Single Value : 29000

Environment

Aircraft : 1

Controlling Facilities.ARTCC : ZZZ.ARTCC Operator.Common Carrier : Air Carrier Make Model Name : B757-200 Operating Under FAR Part : Part 121 Flight Phase.Climbout : Intermediate Altitude

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC ASRS Report : 792380

Events

Anomaly.Inflight Encounter : Wake Turbulence Independent Detector.Other.Flight CrewA : 1 Resolutory Action.None Taken : Unable

Assessments

Problem Areas : Environmental Factor

Narrative

WE HAD LEVELED OFF AT FL290 FOR A FEW MINUTES. RIDE RPTS WERE 'SMOOTH' AND WE INDEED HAD A GOOD RIDE. WE HAD JUST TURNED OFF THE SEAT BELT SIGN WHEN WE ENCOUNTERED WHAT HAD TO BE WAKE TURBULENCE. THERE WAS NO ROLLING EFFECT, JUST TWO SHARP JOLTS OF MODERATE INTENSITY. THE FLT ATTENDANTS SAID NO ONE WAS HURT BUT THEY WERE VERY CURIOUS ABOUT WHAT CAUSED IT. ATC TOLD US THAT A B747 HAD CROSSED EIGHT MILES AHEAD OF US AT FL300.

Synopsis

A B757 AT FL290 PASSED EIGHT MILES BEHIND A B747 AT FL300 AND RECEIVED TWO MODERATE WAKE TURBULENCE JOLTS.

Time / Day

Date : 200806 Local Time Of Day : 1801 To 2400

Place

Locale Reference.ATC Facility : EGGX.ARTCC State Reference : FO Altitude.MSL.Single Value : 35000

Environment

Aircraft : 1

Controlling Facilities.ARTCC : EGGX.ARTCC Operator.Common Carrier : Air Carrier Make Model Name : B777-200 Operating Under FAR Part : Part 121 Flight Phase.Cruise : Level Route In Use.Enroute : Atlantic

Component : 1

Aircraft Component : Turbine Engine

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : First Officer Experience.Flight Time.Last 90 Days : 110 Experience.Flight Time.Total : 9000 Experience.Flight Time.Type : 110 ASRS Report : 790639

Person: 2

Affiliation.Company : Air Carrier Function.Flight Crew : Relief Pilot Experience.Flight Time.Last 90 Days : 60 Experience.Flight Time.Total : 9000 Experience.Flight Time.Type : 35 ASRS Report : 790645

Events

Anomaly.Aircraft Equipment Problem : Less Severe Anomaly.Inflight Encounter : Wake Turbulence Independent Detector.Other.Flight CrewA : 1 Independent Detector.Other.Flight CrewB : 2 Resolutory Action.Flight Crew : Exited Adverse Environment

Assessments

Problem Areas : Aircraft Problem Areas : Environmental Factor

Narrative

WHILE CROSSING ATLANTIC ON NAT Y WE HAD A 60 KNOT TAILWIND AND ENCOUNTERED WAKE TURBULENCE FROM AIRCRAFT ALONG OUR ROUTE AHEAD OF US AND IMMEDIATELY HEARD A 'POP' FOLLOWED BY A SECOND 'POP' APPROX 5 SECONDS LATER. A THIRD 'POP' WAS HEARD APPROX 3 SECONDS LATER IN WHICH I OBSERVED A SLIGHT ENGINE ROLLBACK WHICH IMMEDIATELY RECOVERED. WE IMMEDIATELY DESLOPPED (1R) TO GET OUT OF WHAT APPEARED TO BE SEVERAL AIRCRAFTS' CONTRAILS AND WAKE TURBULENCE. IT SEEMED THAT ALL AIRLINES HAD SLOPPED 1R. AFTER DESLOPPING WE OBSERVED NO CONTRAILS THAT WERE ACTUALLY ON THE ROUTE AND EXPERIENCED NO FURTHER ISSUES OR TURBULENCE. WE SENT A REPORT IN AND CONTINUED ON WITHOUT FURTHER INCIDENT. I FEEL MAYBE THERE WAS A PREEXISTING ISSUE WITH THE LEFT ENGINE BECAUSE THE WAKE TURBULENCE WAS NOT EXTREME. I ALSO FEEL WE SHOULD RELOOK AT SLOPPING 1R AS SOP. THIS DAY IT SEEMED ALL AIRPLANES IN OUR VICINITY WERE ALIGNED WITH OUR FLIGHT WHILE WE WERE SLOPPING 1R.

Synopsis

B777-200 ENCOUNTERED WAKE TURB WHILE FLYING RECOMMENDED ONE MILE OFFSET ALONG OCEANIC TRACK. ENG COMPRESSOR STALL OCCURRED DURING THE ENCOUNTER.

Time / Day

Date : 200806 Local Time Of Day : 1201 To 1800

Place

Locale Reference.Airport : PHL.Airport State Reference : PA

Aircraft : 1

Controlling Facilities.TRACON : PHL.TRACON Operator.Common Carrier : Air Carrier Make Model Name : Airbus Industrie Undifferentiated or Other Model Operating Under FAR Part : Part 121 Flight Phase.Climbout : Takeoff

Aircraft : 2

Controlling Facilities.TRACON : PHL.TRACON Operator.Common Carrier : Air Carrier Make Model Name : Commercial Fixed Wing Flight Phase.Climbout : Takeoff

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Qualification.Pilot : ATP ASRS Report : 790263

Events

Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Non Adherence : Published Procedure Independent Detector.Other.Flight CrewA : 1 Resolutory Action.Flight Crew : Exited Adverse Environment

Assessments

Problem Areas : Company Problem Areas : Environmental Factor

Narrative

JUST AFTER ROTATION AT PHL WE NOTED THAT THE PLANE WAS A BIT SLOW TO LIFT OFF AND THAT V2 WAS VERY NEAR (ONE OR TWO KNOTS) VLS. LATER IN CLIMB OUT, WE ENCOUNTERED THE WAKE OF A PLANE WHICH WAS, ACCORDING TO ATC, 9.5 MILES AHEAD OF US. IT ROLLED THE AIRCRAFT ABOUT 30 DEGREES TO THE LEFT. THIS SEEMED EXCESSIVE FOR A WAKE ENCOUNTER AND ALONG WITH THE PECULIAR V2 VLS RELATIONSHIP GOT ME THINKING THE WE WERE SIGNIFICANTLY HEAVIER THAN STATED ON THE WEIGHT AND BALANCE. WHEN I

LATER NOTICED THAT THE PROG PAGE WAS SUGGESTING OPTIMAL ALTITUDES. 3000 FT TO 4000 FT BELOW PLANNED, I DECIDED TO LOOK AT GWFL IN THE PARAMETER ALPHA PAGE ON THE MCDU. TO MY SURPRISE, FLT AUGMENTATION COMPUTER 1 INDICATED 136900 LBS AND FLT AUGMENTATION COMPUTER 2 INDICATED 135560 LBS. THE GROSS WEIGHT OF THE PLANE ON THE LOWER ECAM WAS 127800 LBS. WE RECALLED USING THE NEW TAXI CHECKLIST WHICH CONFIRMS THE WEIGHT ON THE WEIGHT AND BALANCE WITH THE LOWER ECAM. THE FO KEPT THE POWER ON THROUGH THE FLARE WHICH AVOIDED A HIGH DECK ANGLE AT TOUCHDOWN. I DO, FROM TIME TO TIME, HAVE A LOOK AT THE GWFL VARIABLE IN THE MCDU. IT TENDS TO FLUCTUATE 2000 LBS TO 3000 LBS; 9000 LBS IS VERY UNCOMMON. IT IS INTERESTING TO NOTE THAT HAD THE 'CORRECT' WEIGHT ACCORDING TO THE GWFL BEEN REFLECTED ON THE WT AND BAL, WE WOULD HAVE STILL BEEN LEGAL FOR TAKEOFF AND LANDING PERFORMANCE. CARGO WEIGHTS ON THE WT AND BAL WERE 60 LBS FRONT AND 2010 LBS IN THE AFT. PASSENGER COUNT WAS 110. IT SEEMS A MISTAKE WAS MADE COUNTING BAGS OR WEIGHING THE CARGO. THE SOLUTION PROBABLY LIES SOMEWHERE BEYOND THE INFLUENCE OF PILOTS.

Synopsis

IN AN AIRBUS AIRCRAFT, SUSPECTED TO BE HEAVIER THAN DOCUMENTED, WAKE TURBULENCE IS ENCOUNTERED DURING CRUISE CAUSING UNEXPECTED 30 DEGREE ROLL.

Time / Day

Date : 200806 Local Time Of Day : 0601 To 1200

Place

Locale Reference.Airport : ATL.Airport State Reference : GA Altitude.MSL.Single Value : 12000

Environment

Flight Conditions : VMC Light : Dusk

Aircraft : 1

Controlling Facilities.ARTCC : ZTL.ARTCC Operator.Common Carrier : Air Carrier Make Model Name : EMB ERJ 170/175 ER&LR Operating Under FAR Part : Part 121 Flight Phase.Descent : Approach Route In Use.Arrival.STAR : ERLIN

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : First Officer Qualification.Pilot : Commercial Qualification.Pilot : Instrument Experience.Flight Time.Last 90 Days : 120 Experience.Flight Time.Total : 1930 Experience.Flight Time.Type : 600 ASRS Report : 789248

Events

Anomaly.Inflight Encounter : Wake Turbulence Independent Detector.Other.Flight CrewA : 1 Resolutory Action.None Taken : Unable

Assessments

Problem Areas : Environmental Factor

Narrative

WE WERE ON THE ERLIN 3 ARR INTO ATL. ALL DSCNTS AND SPEED REDUCTIONS HAD BEEN NORMAL FOR ATL (WE WERE SLOWED A LITTLE EARLY). UPON PASSING, AROUND STUTZ INTXN ON THE ARR, AROUND 12000 FT MSL THE ACFT ENCOUNTERED WAKE TURBULENCE OF THE PRECEDING ACFT (WE THINK), WHICH LATER WAS BELIEVED TO BE A B737 (OR ANOTHER PASSING ACFT). OUR ACFT WAS FLYING ON THE AUTOPLT AT THE TIME OF THE ENCOUNTER. THE AIRPLANE ROLLED RAPIDLY APPROX 30 DEGS IN EITHER DIRECTION. THE AUTOPLT TENDED TO OVERCORRECT SO I USED THE TCS BUTTON TO OVERRIDE THE AUTOMATION. WE NEVER RECEIVED ANY WARNINGS FROM ATC OF WAKE TURBULENCE. AFTER THE ENCOUNTER THE CAPT CALLED THE FLT ATTENDANTS TO MAKE SURE EVERYONE WAS OKAY. NO ONE WAS HURT, JUST STARTLED. HE MADE THE APPROPRIATE ANNOUNCEMENTS TO THE PAX EXPLAINING THE SITUATION. OBVIOUSLY, WE CAN'T DETECT WAKE TURBULENCE, SO WE COULDN'T HAVE DONE MUCH MORE. THAT WAS MY FIRST ENCOUNTER WITH WAKE TURBULENCE THAT BAD.

Synopsis

DURING A ROUTINE ARR WAKE TURBULENCE WAS ENCOUNTERED CAUSING A STARTLING RAPID ROLL.

Time / Day

Date : 200805 Local Time Of Day : 1801 To 2400

Place

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

Environment

Light : Night

Aircraft : 1

Controlling Facilities.TRACON : ZZZ.TRACON Operator.Common Carrier : Air Carrier Make Model Name : MD-80 Series (DC-9-80) Undifferentiated or Other Model Operating Under FAR Part : Part 121 Flight Phase.Descent : Vacating Altitude

Person: 1

Affiliation.Company : Air Carrier Function.Flight Attendant : On Duty Qualification.Flight Attendant : Currently Qualified Qualification.Flight Attendant.Aircraft Qualified On : 5 Experience.Flight Attendant Time.Airline Total : 10 Experience.Flight Attendant Time.Total : 10 Experience.Flight Attendant Time.Type : 90 ASRS Report : 788923

Events

Anomaly.Inflight Encounter : Wake Turbulence Resolutory Action.None Taken : Detected After The Fact Consequence.Other : Physical Injury

Assessments

Problem Areas : Environmental Factor

Narrative

ON DSCNT WE SUDDENLY HIT VIOLENT TURBULENCE, DUE TO A CLOSE ENCOUNTER WITH ANOTHER AIRPLANE. WE HIT THE WAKE OF THE PLANE AND THE FLT ATTENDANTS, WHO WERE PREPARING FOR LNDG, WERE ALL INJURED. I WAS THROWN, WITH GREAT FORCE, AGAINST THE ENTRY-WAY DOOR, HITTING MY HEAD AND ENTIRE LEFT SIDE, LNDG ON THE FLOOR. I WAS STUNNED AND IN SHOCK. A PAX CAME TO MY AID. I DON'T REMEMBER SOME DETAILS, BUT DID MANAGE TO MAKE AN ANNOUNCEMENT ON LNDG AND OPEN THE DOOR FOR DEPLANING. I HAD A CONCUSSION AND WHIPLASH, AND MANY BRUISES. CAPT SAID A SIMILAR INCIDENT HAPPENED JUST ONE WEEK BEFORE, AND ALL THE FLT ATTENDANTS WERE INJURED. I DON'T KNOW WHY THIS HAPPENED, OR WHOSE FAULT IT WAS, BUT I FEEL THAT IF THE FLT ATTENDANTS WERE ABLE TO PREPARE FOR LNDG EARLIER, THERE WOULD BE FOUR FEWER INJURIES. THE DSCNT IS USUALLY MORE TURBULENT AND THAT'S WHEN WE'RE UP AND ABOUT, DOING OUR DUTIES. THIS IS NOT SAFE. WE HAVE TO ACTUALLY SERVE DRINKS AND PREPARE FOR LNDG ON 30-45 MIN FLTS! THIS IS CRAZY! AND NOT SAFE! I'D LIKE TO SEE THIS PROC CHANGE! ALL THE FLT ATTENDANTS WERE INJURED AND SPENT THE NIGHT IN THE EMERGENCY ROOM. IF THE PAX HAD BEEN UP, THERE COULD HAVE BEEN MANY MORE INJURIES. WE SHOULD HAVE BEEN SEATED AND FASTENED IN OUR SEATBELTS AS WELL.

Synopsis

FLT ATTENDANTS ABOARD MD80 SUFFER INJURIES AS A RESULT OF WAKE TURBULENCE ENCOUNTER.

Time / Day

Date : 200805

Place

Locale Reference.Airport : IAD.Airport State Reference : VA Altitude.MSL.Single Value : 6000

Environment

Light : Daylight

Aircraft : 1

Controlling Facilities.TRACON : PCT.TRACON Operator.Common Carrier : Air Carrier Make Model Name : EMB ERJ 145 ER&LR Operating Under FAR Part : Part 121 Navigation In Use.Other : FMS or FMC Flight Phase.Descent : Intermediate Altitude Route In Use.Arrival.STAR : SHNON

Aircraft : 2

Controlling Facilities.TRACON : PCT.TRACON Make Model Name : Heavy Transport Flight Phase.Descent : Intermediate Altitude

Person : 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Qualification.Pilot : ATP ASRS Report : 786359

Events

Anomaly.Inflight Encounter : Wake Turbulence Independent Detector.Other.Flight CrewA : 1 Resolutory Action.Flight Crew : Exited Adverse Environment Consequence.FAA : Reviewed Incident With Flight Crew

Assessments

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

Narrative

WHILE ON SHNON TWO ARRIVAL INTO IAD WE WERE FLYING TOWARDS MIKEJ (HEADING ABOUT 190 DEGS) FOR RWY 1L. WE WERE AT 6000 FT AND AT AN ASSIGNED SPEED OF 210 KTS. ATC INFORMED US WE WILL BE FOLLOWING A HEAVY ACFT AT 6000 FT. WE FELT THE WAKE OF THE HEAVY ACFT IN FRONT OF US, TOOK EVASIVE ACTION, TURNED RIGHT TO A HEADING OF 210 DEGS AND INFORMED ATC. LATER ATC ADVISED US WE CAN TURN BACK TO HEADING 190 DEGS AS THAT HEAVY ACFT WAS NOW BELOW US. WE FOLLOWED THEIR INSTRUCTIONS AND LANDED WITHOUT ANY FURTHER INCIDENTS. AFTER LANDING WE CONTACTED THE TOWER AND THEY TOLD US THAT THERE WAS ALWAYS A SEPARATION OF 7 MILES BETWEEN US AND THE HEAVY AIRCRAFT AND IT WAS A NON ISSUE.

Synopsis

E145 FOLLOWING A HEAVY JET ENCOUNTERS WAKE TURBULENCE AND PERFORMS GAR.

Time / Day

Date : 200805 Local Time Of Day : 1801 To 2400

Place

Locale Reference.Airport : ZZZ.Airport State Reference : US Altitude.MSL.Single Value : 16000

Environment

Flight Conditions : VMC Light : Night

Aircraft : 1

Controlling Facilities.TRACON : ZZZ.TRACON Operator.Common Carrier : Air Carrier Make Model Name : MD-80 Series (DC-9-80) Undifferentiated or Other Model Operating Under FAR Part : Part 121 Navigation In Use.Other : FMS or FMC Flight Phase.Descent : Vacating Altitude Route In Use.Arrival.STAR : N/S

Aircraft : 2

Controlling Facilities.TRACON : ZZZ.TRACON Operator.Common Carrier : Air Carrier Make Model Name : Airbus Industrie Undifferentiated or Other Model Operating Under FAR Part : Part 121 Flight Phase.Descent : Vacating Altitude Route In Use.Arrival.STAR : N/S

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : First Officer ASRS Report : 786307

Person: 2

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC ASRS Report : 786321

Events

Anomaly.Inflight Encounter : Wake Turbulence Resolutory Action.Controller : Issued New Clearance Resolutory Action.Flight Crew : Exited Adverse Environment Consequence.Other : Physical Injury

Assessments

Problem Areas : Airspace Structure Problem Areas : Environmental Factor

Narrative

AFTER PASSING FL200 ON THE ARR INTO ZZZ DSNDING THROUGH APPROX 16000 FT. WE ENCOUNTERED WAKE TURB FROM A PRECEDING ACFT ALSO TRACKING THE ARR INTO ZZZ. THE AUTOPLT WAS ENGAGED AND THE ACFT WAS FOLLOWING VNAV AND NAV COMMANDS FROM THE FMS. WHEN THE ACFT APPEARED TO START AN UNCONTROLLED ROLL TO THE LEFT, I, AS THE PF, DISCONNECTED THE AUTOPLT AND MANEUVERED THE ACFT UP AND TO THE LEFT OF THE WAKE TURB CORE WE WERE ENGAGED IN. JUST PRIOR TO ENTERING THIS WAKE, APCH HAD JUST QUERIED US ON OUR SPD WHICH WAS ABOUT 320 KTS. AS I WAS ENTERING THE WAKE, APCH HAD INFORMED US THAT THERE WAS AIRBUS TFC LESS THAN 6 MILES AHEAD AND THAT WE SHOULD SLOW TO 280 KTS. AFTER EXITING THE WAKE, APCH INSTRUCTED US TO TURN LEFT 20 DEGS FOR TFC AHEAD. THE CAPT AT THIS TIME WAS IN COMMUNICATION WITH THE FLT ATTENDANTS TAKING ASSESSMENT AND FROM THAT EXCHANGE I INFORMED APCH THAT WE HAD EXPERIENCED A WAKE TURB EVENT AND THERE WERE POSSIBLE INJURIES. APCH THEN VECTORED US FOR SPACING BEHIND THE AIRBUS TO CONTINUE THE ARR INTO ZZZ. THE CAPT TRIED TO INFORM COMPANY OF OUR SITUATION AND HAVE THEM CALL PARAMEDICS TO MEET THE ACFT, BUT THERE WAS NO ANSWER. ATC COORDINATED WITH ZZZ TWR AND ROLLED THE PARAMEDICS TO OUR ARR GATE. ATC ALSO DESIGNATED US AS AN EMER ACFT. ONCE PARKED AT THE GATE, PAX DEPLANED NORMALLY WITH NO INJURIES AND COMPLAINTS. PARAMEDICS TRIAGED THE 3 FLT ATTENDANTS AND THEY DECIDED TO SEEK FURTHER MEDICAL ATTENTION. SUPPLEMENTAL INFO FROM ACN 786321: DSNDING INTO ZZZ WITH SEATBELT SIGN ON. AT APPROX 16000 FT, WAKE TURB WAS ENCOUNTERED FROM PRECEDING ACFT ON THE SAME ARR AND TRACK TO ZZZ. THE DSCNT FROM CRUISE ALT TO TOUCHDOWN WAS IN NIGHT VMC AND SMOOTH AIR, EXCEPT FOR A FEW SECONDS OF WAKE TURB. AUTOPLT WAS USED IN THE VNAV MODE, UNTIL THE AUTOPLT WAS DISCONNECTED TO EFFECT RECOVERY. THE FO WAS FLYING. THE COCKPIT CREW OBSERVED NO UNSECURED OBJECTS BEING DISLODGED. SECONDS BEFORE THE EVENT, ATC DID ASK US OUR SPD. APPROX 320-325 KTS WAS GIVEN. AT THIS TIME THERE WERE NO SPD RESTRS OR FOLLOWING TFC ADVISORIES GIVEN. THEN THE WAKE TURB WAS ENCOUNTERED. AFTER THE INITIAL ROLL AND PITCH VARIANCE, THE FO ELECTED TO DISCONNECT THE AUTOPLT. THIS RESULTED IN THE QUICKEST AND BEST RECOVERY. A LEFT TURN TO TRY TO MANEUVER OUT OF IT WAS INITIATED. AT THE COMPLETION OF THE RECOVERY, I CALLED THE CABIN TO GET AN ASSESSMENT. THE 3 FLT ATTENDANTS RPTED HAVING BEEN BUMPED AROUND WITH POSSIBLE INJURIES TO THEMSELVES. THERE WERE NO RPTS OF PAX PROBLEMS AND NO REQUESTS FROM PAX. A CALL TO ATC WAS MADE AND WE STATED THAT WE MIGHT HAVE POSSIBLE FLT ATTENDANT INJURIES. WE WERE UNABLE TO CONTACT OPS, THEREFORE WE ASKED ATC TO CALL FOR PARAMEDICS. AFTER THE PAX WERE OFF THE AIRPLANE THE PARAMEDICS CHKED OUT THE FLT ATTENDANTS. ALL THREE FLT ATTENDANTS CHOSE TO GET FURTHER MEDICAL ATTENTION.

Synopsis

MD80 FLT CREW ENCOUNTERS WAKE TURBULENCE FROM PRECEDING ACFT PASSING 16000 FT DURING DSCNT. FLIGHT ATTENDANTS ARE ONLY INJURIES.

Time / Day

Date : 200805 Local Time Of Day : 1801 To 2400

Place

Locale Reference.Airport : LAX.Airport State Reference : CA Altitude.MSL.Single Value : 9200

Environment

Flight Conditions : VMC Light : Daylight

Aircraft : 1

Controlling Facilities.TRACON : SCT.TRACON Operator.Common Carrier : Air Carrier Make Model Name : A320 Operating Under FAR Part : Part 121 Flight Phase.Descent : Approach Route In Use.Arrival.STAR : SEAVU

Aircraft : 2

Controlling Facilities.TRACON : SCT.TRACON Operator.Common Carrier : Air Carrier Make Model Name : Airbus Industrie Undifferentiated or Other Model Operating Under FAR Part : Part 121 Flight Phase.Descent : Approach Route In Use.Arrival.STAR : SEAVU

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Qualification.Pilot : ATP Experience.Flight Time.Last 90 Days : 200 Experience.Flight Time.Total : 18000 Experience.Flight Time.Type : 8000 ASRS Report : 786199

Events

Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Non Adherence : FAR Anomaly.Other Anomaly : Speed Deviation Independent Detector.Aircraft Equipment.Other Aircraft Equipment : ECAM Independent Detector.Other.Flight CrewA : 1 Resolutory Action.Flight Crew : Returned To Original Clearance

Assessments

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

Narrative

WE WERE ON APCH TO RWY 24R AT LAX IN SELECTED SPEED, AS ASSIGNED BY ATC, ON MANAGED SEAVU ARR DSCNT. WE WERE FOLLOWING A HEAVY AIRBUS WHICH HAD RESULTED IN SOME MINOR WAKE TURBULENCE. I CONTINUED TO TRY TO KEEP THE TFC IN SIGHT WHEN I NOTICED THAT PF HAD DSNDED THROUGH 10000 FT AND WAS STILL AT SELECTED SPEED OF 270 KTS. I IMMEDIATELY TOLD HIM AND I SELECTED 250 KTS TO SLOW THE AIRPLANE. AIRSPEED EXCEEDED MESSAGE ON ECAM AND I NOTICED THE SPEED EXCEEDANCE ON INSTRUMENTS. SELECTED 250 KTS SPEED. WE WERE BOTH CONCERNED ABOUT WAKE TURBULENCE FROM HEAVY JET AND THEREFORE TRYING TO KEEP THAT AIRPLANE IN SIGHT THAT WE NEGLECTED TO NOTICE THAT WE HAD EXCEEDED 250 KTS BELOW 10000 FT. THE PF SHOULD FLY THE AIRPLANE AND PM SHOULD MONITOR THE FLYING.

Synopsis

A320 FLT CREW RPTS EXCEEDING 250 KTS BELOW 10000 FT WHILE LOOKING FOR PRECEDING HEAVY JET PRODUCING WAKE TURBULENCE.

Time / Day

Date : 200805 Local Time Of Day : 1201 To 1800

Place

Locale Reference.Airport : SFO.Airport State Reference : CA

Environment

Flight Conditions : IMC Light : Daylight

Aircraft : 1

Controlling Facilities.TRACON : NCT.TRACON Operator.Common Carrier : Air Carrier Make Model Name : A320 Operating Under FAR Part : Part 121 Navigation In Use.Other : FMS or FMC Flight Phase.Climbout : Initial Route In Use.Departure.SID : PORTE

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Qualification.Pilot : ATP Experience.Flight Time.Last 90 Days : 270 Experience.Flight Time.Total : 8500 Experience.Flight Time.Type : 500 ASRS Report : 784922

Person: 2

Affiliation.Company : Air Taxi Function.Flight Crew : First Officer Qualification.Pilot : ATP ASRS Report : 784923

Events

Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Other Spatial Deviation Independent Detector.Other.Flight CrewA : 1 Resolutory Action.Controller : Issued New Clearance Resolutory Action.Flight Crew : Returned To Intended or Assigned Course Consequence.FAA : Reviewed Incident With Flight Crew

Assessments

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

Narrative

AFTER TAKEOFF, FLIGHT DIRECTORS COMMANDED AN UNEXPECTED RIGHT TURN WHILE IN IMC AND HAVING ENCOUNTERED WAKE TURBULENCE. AS CAPT, I WAS EXPECTING A STRAIGHT-OUT DEPARTURE, AND SAID, 'THIS IS NOT RIGHT,' AFTER NOTICING FLIGHT DIRECTOR DEFLECTION. FO WAS HAND FLYING AIRCRAFT AND ACKNOWLEDGED MY CHALLENGE TO FLIGHT DIRECTOR DEFLECTION. DURING THIS INITIAL RIGHT TURN, THE TOWER CONTROLLER HANDED US OFF TO THE DEPARTURE CONTROLLER. PRIOR TO CONTACTING DEPARTURE CONTROL, I REQUESTED FO TO MAKE A LEFT TURN IN REFERENCE TO MY SID CHART. FO COMPLIED, AND INITIATED A SMOOTH LEFT TURN OPTING TO LEAVE THRUST LEVERS IN FLX/MCT. I THEN CONTACTED DEPARTURE CONTROL, AND WE WERE IMMEDIATELY ISSUED A LEFT-TURN HEADING TO FLY. I SELECTED THIS HEADING INTO THE FGCP WINDOW AND NOTICED THAT THE FLIGHT DIRECTORS SNAPPED BACK INTO AN EXPECTED AND NORMAL POSITION FOR DURATION OF FLIGHT. I WAS VERY FOCUSED ON THE FLIGHT DIRECTOR MOVEMENT FROM THIS INITIAL MOMENT OF DEVIATION, AND FO WAS STILL HAND FLYING UNTIL CERTAINTY OF FLIGHT DIRECTORS WAS ESTABLISHED. AS DEVIATION TO DEPARTURE SID TRACK WAS OCCURRING, I WAS COMPARING THE FD'S TO CONFIRM A PROBLEM, NOTIFYING THE FLYING PILOT, ACKNOWLEDGING ATC INSTRUCTIONS, AND ENSURING A FLIGHT PATH CORRECTION. THE FIRST OFFICER WAS MAINTAINING AIRCRAFT STABILIZATION IN WAKE TURBULENCE, ATTEMPTING TO CONFIRM DEVIATION WHILE HAND FLYING IN IMC CONDITIONS AND COMPLYING WITH MY REQUEST FOR A LEFT TURN JUST, PRIOR TO ATC VECTORS. WHILE PARKED AT THE GATE, I HAD PROGRAMMED THE FMS COMPUTER, AFTER FURTHER DISCUSSION, THERE IS A HIGH PROBABILITY THAT I ENTERED RUNWAY 1L AS THE DEPARTURE RUNWAY IN THE COMPUTER FLIGHT PLAN, ALTHOUGH THE FO DID CALCULATE PERFORMANCE NUMBERS FOR THE 28'S. WE TAXIED OUT TO THE 28'S IN A SINGLE ENGINE CONFIGURATION AS WE WERE ADVISED TO EXPECT A 30-MINUTE DELAY. WE WERE ULTIMATELY PARKED CLOSER TO RUNWAY 28L, AT THE INTERSECTION OF TAXIWAY L AND F. ATC UNEXPECTEDLY ISSUED US AN IMMEDIATE TAXI CLEARANCE, IN FRONT OF AN AIRBUS, TO RUNWAY 28L SHORTLY AFTER. PARALLEL RUNWAY DEPARTURES WERE NOW BEING USED, EXPEDITING OUR QUEUE FOR TAKEOFF. WE PICKED UP THE PACE OF OUR CHECKLIST DUTIES IN RESPONSE. NEARING THE END OF RUNWAY 28L, AND EXPECTING TO DEPART SOON AFTER A HEAVY FLIGHT AHEAD. I SAID TO FO, 'MAKE SURE THE NUMBERS ARE ALL IN THE BOX FOR THE LEFT!' I THEN ACCEPTED HIS RESPONSE AS A CONFIRMATION THAT ALL DEPARTURE DATA WAS UPDATED AND SET. WHILE TAXIING INTO POSITION ON RUNWAY 28L, I QUICKLY GLANCED AT MY SID CHART AND BEGAN MENTALLY PREPARING FOR THE DEPARTURE. FO WAS CONCERNED OF TRAFFIC LANDING WHAT APPEARED TO BE ON OUR RUNWAY. WE CONFIRMED THIS HEAVY WAS LANDING ON THE PARALLEL, AND IMMEDIATELY COMMENCED DUE TO TRAFFIC BEHIND US. WE THEN DEPARTED BEHIND THE HEAVY AHEAD OF US. EITHER A PROBLEM EXISTED IN ENTERING THE DEPARTURE DATA FOR TAKEOFF RUNWAY, OR MAINTENANCE MANUAL DESCRIPTION OF ADIRU/TCAS 'TEMPORARY LOSS' HAS OCCURRED. AT THIS TIME, FIRST OFFICER AND I CAN IDENTIFY MOMENTS DURING THE TAXI PHASE WHERE THE SCENARIO POTENTIAL FOR INCORRECT DEPARTURE DATA IN THE FMS WAS QUITE PROBABLE -- PRIMARILY TOWARDS THE END OF OUR DEPARTURE RUNWAY WHILE STARTING ENGINE #2, RAPIDLY ADVANCING IN QUEUE FOR TAKE-OFF AND ACCOMPLISHING CHECKLISTS. A MORE CAREFUL.

DUAL, VISUAL VERIFICATION OF THIS RUNWAY/DEPARTURE DATA SHOULD HAVE BEEN EMPHASIZED EVEN IF IN A PRESSURED ENVIRONMENT. CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO: THE REPORTER STATED THE TAXI FROM THE GATE WAS SINGLE ENG. RECOGNIZING THAT THEIR SEQUENCE FOR DEP WAS BEING EXPEDITED, THE SECOND ENG WAS STARTED, AND CHECKLISTS WERE QUICKLY COMPLETED. THE REPORTER FELT RUSHED, BUT WHEN HE ASKED THE FO IF ALL PERFORMANCE DATA WAS CHECKED AND IF THEY WERE SET UP FOR DEP ON THE LEFT, THE RESPONSE WAS AFFIRMATIVE. MODERATE WAKE TURB WAS ENCOUNTERED AFTER TKOF, AND THE FO THEN INITIATED A RIGHT TURN, FOLLOWING THE FLT DIRECTOR COMMANDS. THIS SURPRISED THE REPORTER AND HE INFORMED THE FO TO TURN BACK TO THE LEFT FOR ON-COURSE. THE EVENT WAS DISCUSSED BETWEEN THE PLTS ON THE SUBSEQUENT FLT, AND THE REPORTER NOW BELIEVES THAT IT IS LIKELY THAT THE FMS WAS INCORRECTLY PROGRAMMED. ANTICIPATING A NORMAL DEP, THE REPORTER WOULD HAVE INITIALLY SELECTED RWY 1L, PORTE 3 DEP. BEFORE TKOF, WHEN QUERIED IF THE NUMBERS WERE IN THE BOX FOR THE LEFT, THE FO'S AFFIRMATIVE RESPONSE WAS WITH REGARD TO THE PERFORMANCE DATA, NOT THE SID AND RWY SELECTED.

Synopsis

A320 INITIATED AN UNCOMMANDED RIGHT TURN AFTER TKOF FROM SFO AFTER EXPERIENCING WAKE TURB, RATHER THAN TRACKING THE PROPER COURSE FOR THE PORTE 3 DEP FROM RWY 28L.

Time / Day

Date : 200804 Local Time Of Day : 1201 To 1800

Place

Locale Reference.Airport : ZZZ.Airport State Reference : US Altitude.AGL.Bound Lower : 0 Altitude.AGL.Bound Upper : 400

Environment

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

Aircraft : 1

Controlling Facilities.TRACON : ZZZ.TRACON Operator.General Aviation : Personal Make Model Name : Bonanza 36 Operating Under FAR Part : Part 91 Flight Phase.Climbout : Takeoff Route In Use.Departure : On Vectors

Person : 1

Affiliation.Other : Personal Function.Flight Crew : Single Pilot Qualification.Pilot : Commercial Qualification.Pilot : Instrument Experience.Flight Time.Last 90 Days : 44 Experience.Flight Time.Total : 626 Experience.Flight Time.Type : 257 ASRS Report : 784210

Events

Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Non Adherence : Clearance Anomaly.Other Spatial Deviation Independent Detector.Other.Flight CrewA : 1 Resolutory Action.Controller : Issued Advisory Resolutory Action.Flight Crew : Exited Adverse Environment Consequence.FAA : Reviewed Incident With Flight Crew

Assessments

Problem Areas : ATC Human Performance Problem Areas : Aircraft Problem Areas : Environmental Factor Problem Areas : Weather

Narrative

I WAS CLRED FOR TKOF ON RWY XXL WITH A VECTOR OF 290 AFTER TKOF. TOWER GAVE CLRNC FOR TKOF WITHOUT DELAY AND WAS ISSUED IMMEDIATELY AFTER A LARGE JET LANDED AND ANOTHER JET ON TWO MILE FINAL. UPON TKOF, AT NORMAL ROTATION SPEED (75 KTS), PLANE EXPERIENCED EXTREME WAKE TURBULENCE FORCING PLANE TO L. CORRECTION WAS MADE FOR WAKE TURBULENCE, HOWEVER, COMBINED WITH WIND GUSTS AND RAIN SHOWERS, PLANE WAS FORCED OFF OF HEADING DUE TO L ROLL AND YAW. CONTROL OF PLANE WAS MAINTAINED AT ALL TIMES, HOWEVER, AFTER REACHING NORMAL CLB ATTITUDE, HEADING WAS NOW 280 AND CORRECTION TO HEADING 310 WAS ADVISED BY DEP. LATER ON IN FLT, WHILE ON COURSE TO ABC INTXN, I WAS ASKED WHAT HEADING WAS ISSUED TO ME BEFORE TKOF AND I RESPONDED 280 AND CORRECTED TO 310 PER DEP. MY FMS WAS SET FOR 290 HOWEVER I WAS HAND FLYING PLANE FOR BEST CONTROL AND ON A 280 HEADING. THIS HEADING DEV WAS INADVERTENT AND CORRECTIVE ACTION WAS IMMEDIATELY INITIATED ONCE IN NORMAL CLB ATTITUDE BEYOND EFFECTS OF WAKE TURBULENCE AND WIND GUSTS. I WAS ADVISED WHEN I RETURNED HOME TO CALL TRACON. I WAS ADVISED AT THAT TIME THAT I WAS INVOLVED IN AN INCIDENT. IN RETROSPECT, AS PIC, I SHOULD HAVE REQUESTED TO WAIT FOR GREATER SEPARATION FOR TAKEOFF DUE TO THE WORKLOAD IMPOSED FROM WAKE TURBULENCE, WIND GUSTS, AND SIGNIFICANT RAIN SHOWERS. ADDITIONALLY, SINCE THE TOWER WAS GIVING ME PREFERENCE FOR TAKEOFF AS AN ANGEL FLIGHT, I WANTED TO COMPLY WITHOUT UNNECESSARY BURDEN TO INBOUND AND OUTBOUND FLTS. UNFORTUNATELY, THIS CONTRIBUTED TO THE IMMEDIATE DEP AND THUS THE WAKE TURBULENCE AND ADDED WORKLOAD. ONCE AGAIN, WAITING AND REQUESTING FOR GREATER SEPARATION WOULD HAVE ELIMINATED THIS INCIDENT.

Synopsis

BE36 PLT ON ANGEL FLT ENCOUNTERS WAKE TURBULENCE ON TKOF CAUSING A TRACK DEV FROM ASSIGNED DEP HEADING. EXPEDITIOUS HANDLING BY LCL CTLR MAY HAVE CONTRIBUTED TO THE WAKE ENCOUNTER.

Time / Day

Date : 200804 Local Time Of Day : 1201 To 1800

Place

Locale Reference.Airport : ORD.Airport State Reference : IL Altitude.MSL.Single Value : 13000

Environment

Flight Conditions : Marginal

Aircraft : 1

Controlling Facilities.ARTCC : ZAU.ARTCC Operator.Common Carrier : Air Carrier Make Model Name : B777-200 Operating Under FAR Part : Part 121 Route In Use.Departure.SID : ORD

Aircraft : 2

Controlling Facilities.ARTCC : ZAU.ARTCC Operator.Common Carrier : Air Carrier Make Model Name : B747 Undifferentiated or Other Model

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Experience.Flight Time.Last 90 Days : 100 Experience.Flight Time.Total : 15000 Experience.Flight Time.Type : 300 ASRS Report : 783029

Events

Anomaly.Inflight Encounter : Wake Turbulence Independent Detector.Other.Flight CrewA : 1 Resolutory Action.None Taken : Anomaly Accepted

Assessments

Problem Areas : Environmental Factor

Narrative

WHILE COMPLYING WITH ATC ASSIGNED RADAR VECTOR WE FLEW THROUGH THE WAKE TURBULENCE OF A SLOWER FLYING B747. SEAT BELT SIGN ON HOWEVER THE FLT ATTENDANTS WERE UP. FLT ATTENDANT WAS IN THE FORWARD GALLEY AND FELL AGAINST THE GALLEY COUNTER, INJURING BOTH FOREARMS. SHE CONTINUED TO WORK THE ENTIRE FLT BUT SAID SHE HAD BRUISED FROM THE INCIDENT. CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO: THE REPORTER INDICATED THAT THE ENCOUNTER WAS A SINGLE JOLT. THE FLT ATTENDANT DENIED MEDICAL ATTENTION ON ARRIVAL.

Synopsis

FLT ATTENDANT INJURED WHEN A B777 ENCOUNTERS WAKE TURBULENCE OF A B747 DURING A DEP FROM ORD.

Time / Day

Date : 200804 Local Time Of Day : 0601 To 1200

Place

Locale Reference.Airport : DFW.Airport State Reference : TX

Environment

Flight Conditions : VMC Light : Daylight

Aircraft : 1

Controlling Facilities.TRACON : D10.TRACON Operator.Common Carrier : Air Carrier Make Model Name : CRJ 900 (all) Canadair Regional Jet 900 Operating Under FAR Part : Part 121 Navigation In Use.Other : FMS or FMC Flight Phase.Climbout : Initial Route In Use.Departure.SID : TEXOMA

Aircraft : 2

Controlling Facilities.TRACON : D10.TRACON Operator.Common Carrier : Air Carrier Make Model Name : MD-11 Operating Under FAR Part : Part 121 Flight Phase.Climbout : Initial

Person : 1

Affiliation.Company : Air Carrier Function.Flight Crew : First Officer Qualification.Pilot : ATP Experience.Flight Time.Last 90 Days : 100 Experience.Flight Time.Total : 4300 Experience.Flight Time.Type : 550 ASRS Report : 782999

Events

Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Non Adherence : Clearance Anomaly.Other Spatial Deviation Independent Detector.Other.Flight CrewA : 1 Resolutory Action.Flight Crew : Exited Adverse Environment Consequence.FAA : Reviewed Incident With Flight Crew

Assessments

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

Narrative

ON TEXOMA NINE DEP OUT OF DFW RWY 18L. THE CAPT WAS FLYING. WE WERE CAUTIONED OF THE HVY MD11 THAT JUST TOOK OFF AHEAD OF US BY THE TWR CTLR AND WE WERE CLRED FOR TKOF, MAINTAIN RWY HDG. CAPT PROCEEDED TO TKOF AND BECAUSE WE WERE CONCERNED WITH SEVERE WAKE TURB DUE TO THE MD11 THAT JUST TOOK OFF. (AND SOON AFTER TKOF WE DID FLY THROUGH WAKE TURB.) CAPT WAS BUSY CTLING THE ACFT AND WE WERE SWITCHED TO A DIFFERENT DEP FREQ. AT THAT TIME WE WERE ASKED IF WE WERE ASSIGNED A 185 DEG HDG BY THE TWR AND CAPT RESPONDED NEGATIVE. AT THIS POINT WE WERE INFORMED BY DEP CTLR TO CALL DEP AND GAVE OUT A PHONE NUMBER. AS SOON AS WE LANDED AT OUR DEST, CAPT CALLED THE NUMBER AND DISCUSSED THE MATTER AND HE WAS TOLD THEY JUST WANTED TO DISCUSS THE MATTER AND THAT NO FURTHER ACTION WILL BE TAKEN.

Synopsis

CONFUSION ABOUT ASSIGNED HEADING AFTER TKOF FOLLOWS CARJ ENCOUNTER WITH WAKE TURBULENCE FROM PREVIOUS DEP OF MD11.

Time / Day

Date : 200804 Local Time Of Day : 1801 To 2400

Place

Locale Reference.Airport : SAV.Airport State Reference : GA Altitude.AGL.Single Value : 0

Environment

Flight Conditions : Mixed

Aircraft : 1

Controlling Facilities.Tower : SAV.Tower Operator.General Aviation : Personal Make Model Name : Cardinal 177/177RG Operating Under FAR Part : Part 91 Flight Phase.Landing : Roll

Aircraft : 2

Controlling Facilities.Tower : SAV.Tower Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer Flight Phase.Landing : Roll

Person: 1

Affiliation.Other : Personal Function.Flight Crew : Single Pilot Qualification.Pilot : Instrument Qualification.Pilot : Private Experience.Flight Time.Last 90 Days : 36 Experience.Flight Time.Total : 658 Experience.Flight Time.Type : 274 ASRS Report : 782186

Events

Anomaly.Excursion : Runway Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Other Anomaly Independent Detector.Other.Flight CrewA : 1 Resolutory Action.None Taken : Unable

Assessments

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

Narrative

DURING LNDG ON RWY 9 I ENCOUNTERED WAKE TURBULENCE WHICH CAUSED ME TO VEER OFF THE RWY INTO THE GRASS. I TAXIED BACK ONTO THE NEAREST TXWY AND PROCEEDED TO PARKING. THERE WAS NO DAMAGE TO THE PLANE. I SHOULD HAVE LANDED LONGER TO AVOID THE TURBULENCE FROM THE PREVIOUS LNDG ACFT. THIS WAS AT THE END OF A LONG BUMPY IFR FLT. AS A RESULT, I WAS IN A BIT OF HURRY TO LAND, AND WAS NOT AS VIGILANT REGARDING WAKE TURBULENCE AVOIDANCE AS I NORMALLY AM.

Synopsis

WAKE TURBULENCE ENCOUNTER ON FINAL APCH CAUSES TEMPORARY RWY EXCURSION FOR C177RG PLT.
Time / Day

Date : 200803 Local Time Of Day : 1201 To 1800

Place

Locale Reference.Airport : DAL.Airport State Reference : TX Altitude.MSL.Single Value : 2000

Environment

Flight Conditions : VMC Weather Elements : Turbulence Light : Daylight

Aircraft : 1

Controlling Facilities.TRACON : D10.TRACON Operator.General Aviation : Personal Make Model Name : PC-12 Operating Under FAR Part : Part 91 Flight Phase.Climbout : Takeoff

Aircraft : 2

Controlling Facilities.TRACON : D10.TRACON Operator.Common Carrier : Air Carrier Make Model Name : B737 Undifferentiated or Other Model Operating Under FAR Part : Part 121 Flight Phase.Climbout : Takeoff

Person : 1

Affiliation.Other : Personal Function.Flight Crew : Single Pilot Qualification.Pilot : ATP Qualification.Pilot : CFI Qualification.Pilot : Instrument Qualification.Pilot : Multi Engine Experience.Flight Time.Last 90 Days : 60 Experience.Flight Time.Total : 4737 Experience.Flight Time.Type : 525 ASRS Report : 779762

Person : 2

Affiliation.Government : FAA Function.Controller : Departure

Events

Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Non Adherence : Clearance Anomaly.Other Spatial Deviation Independent Detector.Other.ControllerA : 2 Independent Detector.Other.Flight CrewA : 1 Resolutory Action.Controller : Issued New Clearance Resolutory Action.Flight Crew : Returned To Intended or Assigned Course Consequence.FAA : Reviewed Incident With Flight Crew

Assessments

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

Narrative

I RECEIVED MY CLRNC FROM DAL LOVE CLRNC. CLRED TO AUSTIN INITIAL L TURN TO 185 DEGS HDG, RADAR VECTOR ACT-V17-DIRECT, CLB AND MAINTAIN 2000 FT AND EXPECT 8000 FT. WX OBTAINED FROM ATIS: 030/10 10 120000 SCT, 27000 SCT, 10/0 30.38 VIS APCH RWY 31L & RWY 31R. I WAS CLRED BY TWR FOR TKOF ON RWY 31R AND ADVISED OF WAKE TURBULENCE BEHIND A B737. I ACCEPTED THE TAKEOFF CLRNC AND STARTED MY TAKEOFF ROLL. UPON LIFTOFF I IMMEDIATELY EXPERIENCED WAKE TURBULENCE AND OFFSET MY HDG TO 285 DEGS FOR MY CLBOUT. CLOSE TO 2000 FT I WAS SWITCHED TO DEP FREQUENCY AND ADVISED THAT I WAS 2000 FT AND GAVE MY HDG AS 285 DEGS, I WAS TOLD TO CLB TO 3000 FT AND TURN TO 140 DEGS AND 'MOVE IT ON AROUND.' I DID AS REQUESTED AND CONTINUED ON THE FLT WITHOUT FURTHER INCIDENCE. I BELIEVE MY FAILURE TO START THE CLRNC TURN IMMEDIATELY TO 185 DEGS MAY HAVE CAUSED CONCERN FOR DEP CTL. I ALSO MADE A MISTAKE IN NOT STATING THAT I WAS IN THE TURN, I RELAYED THE HDG I HAD OFFSET TO AVOID WAKE TURBULENCE. ALTHOUGH I WAS STARTING MY TURN, I RELAYED THE HDG DISPLAYED AND ALTITUDE, WHILE I TRIED TO MAINTAIN LEVEL FLT FROM THE WAKE TURBULENCE. IN MY OPINION, I NEVER DEVIATED FROM MY CLRNC, I ONLY DELAYED IN STARTING MY INITIAL TURN TO THE ASSIGNED HDG TO MAINTAIN LEVEL FLT IN THE FACE OF THE B737 WAKE TURBULENCE AND GAVE A SIMILAR HDG TO THE CLRED HDG. DEP MUST HAVE ASSUMED THAT I WAS IN ERROR AND NEVER QUESTIONED MY HDG OR REASON FOR THE HDG. I WAS INFORMED OF A PROBLEM OVER WACO, BY WACO APCH THAT I NEEDED TO CALL FORT WORTH DUE TO A POSSIBLE PLT DEV. IN THE FUTURE, IN ORDER TO AVOID CONFUSION, I MUST BE VERY CLR WHAT MY INTENTIONS ARE, AND BE VERY PRO-ACTIVE, EVEN IN HIGH STRESS SITUATIONS, TO RELAY ALL MOVEMENTS TO THE APPROPRIATE FREQUENCY AND TO STATE INTENTIONS, IE; STARTING TURN TO ASSIGNED HEADING, INSTEAD OF CALLING OUT A HDG I HAPPENED TO BE ON FOR OFFSET.

Synopsis

PC12 PLT RPTS ENCOUNTERING WAKE TURBULENCE SHORTLY AFTER TKOF FROM DAL AND NOT TURNING TO ASSIGNED HDG WHILE TRYING TO AVOID A SECOND ENCOUNTER.

Time / Day

Date : 200803 Local Time Of Day : 0601 To 1200

Place

Locale Reference.Airport : PHX.Airport State Reference : AZ Altitude.MSL.Single Value : 4000

Environment

Aircraft : 1

Controlling Facilities.TRACON : P50.TRACON Operator.Common Carrier : Air Carrier Make Model Name : B737-500 Operating Under FAR Part : Part 121 Navigation In Use.Other : FMS or FMC Flight Phase.Descent : Intermediate Altitude Route In Use.Arrival.STAR : EAGUL

Aircraft : 2

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : First Officer Experience.Flight Time.Last 90 Days : 146 Experience.Flight Time.Type : 4500 ASRS Report : 779656

Person: 2

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Experience.Flight Time.Last 90 Days : 215 Experience.Flight Time.Type : 14000 ASRS Report : 779663

Person: 3

Affiliation.Government : FAA Function.Controller : Approach

Events

Anomaly.Aircraft Equipment Problem : Less Severe Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Non Adherence : Clearance Anomaly.Non Adherence : Published Procedure Anomaly.Other Spatial Deviation Independent Detector.Other.ControllerA : 3 Independent Detector.Other.Flight CrewA : 1 Resolutory Action.Controller : Issued New Clearance Resolutory Action.Flight Crew : Returned To Intended or Assigned Course

Assessments

Problem Areas : Aircraft Problem Areas : Airspace Structure Problem Areas : Environmental Factor Problem Areas : Flight Crew Human Performance

Narrative

WHILE INBOUND TO HINEY ON THE EAGUL 2 ARR, WE ENCOUNTERED THE WAKE TURBULENCE OF ANOTHER ACFT. THE AUTOPLT FOUGHT AGAINST IT AND BANK ANGLES NEVER EXCEEDED MORE THAN 20 DEGS. UNBEKNOWNST TO US, THIS DISENGAGED THE LNAV PORTION OF THE AUTOPLT LEAVING US IN CWS ROLL AND ALT HOLD. MY AFDS PANEL WAS MEL'D INOPERATIVE SO I WAS REQUIRED TO LOOK ACROSS THE COCKPIT ALL DAY TO CONFIRM THAT WE WERE IN THE CORRECT MODES. THE CAPT DID NOT NOTICE HIS PANEL ANNUNCIATIONS CHANGE AND NEITHER DID I. AFTER PASSING HINEY (I'M NOT SURE HOW MUCH TIME HAD PASSED), I LOOKED DOWN AND NOTICED MY CDI WAS DEFLECTED TO THE RIGHT. I CONFIRMED THAT MY NAV SELECT SWITCH WAS IN NAV. I LOOKED OVER AT THE CAPT'S AFDS PANEL AND NOTICED THAT LNAV HAD DISENGAGED. I WAS JUST ABOUT TO VERBALIZE THIS WHEN APCH CALLED US AND SAID THAT IT LOOKED LIKE WE HAD MISSED OUR TURN. THE CTLR THEN ASSIGNED US A HDG. I'M ONLY ASSUMING THAT THE AUTOPLT'S REACTION TO THE WAKE TURBULENCE CAUSED LNAV TO DISENGAGE. BUT I AM 100% POSITIVE IT WAS ENGAGED BEFORE THE EVENT BECAUSE I REMEMBER THE ACFT TURNING AT THE POINT PRIOR TO HINEY. OBVIOUSLY, EXTRA VIGILANCE IS REQUIRED BY THE PLT WITH THE INOPERATIVE AFDS PANEL. I HAD BEEN MAKING A CONCERTED EFFORT ALL DAY TO STAY ON TOP OF THIS. ADVISE CREWS TO CHK THEIR AFDS PANEL IF THE AUTOPLT IS FLYING DURING A WAKE TURBULENCE ENCOUNTER, OR SIMPLY CLICK IT OFF AND HAND FLY THE ACFT. ONCE EVERYTHING IS STABILIZED, THEN RE-ENGAGE EVERYTHING FROM THE BEGINNING. ALSO, TRY TO KEEP THE CDI IN YOUR CROSSCHECK. IT'S REALLY THE FIRST INDICATION IN A -300/-500 THAT YOU'RE WANDERING OFF COURSE. SUPPLEMENTAL INFO FROM ACN 779663: ON THE EAGUL 2 ARR INTO PHX MY ACFT FLEW THROUGH WAKE TURBULENCE. DURING THE BRIEF WAKE TURB ENCOUNTER I THINK I GRABBED THE CONTROL COLUMN MOMENTARILY. IN LOOKING BACK, I MUST HAVE DISENGAGED LNAV. VERY SHORTLY AFTER THIS PHX APCH SAID WE HAD PASSED A WAYPOINT AND ASSIGNED A HDG. WE WERE THEN CLRED FOR A VISUAL APCH TO RWY 8. I SHOULD HAVE SCANNED THE COCKPIT BETTER AFTER THE WAKE TURBULENCE FOR ANY DEVS. BOTH PLTS SHOULD HAVE SCANNED THE INSTRUMENTS AND ANNUNCIATORS AFTER ENCOUNTERING WAKE TURBULENCE. ACFT WENT THROUGH WAKE TURBULENCE AND LNAV DISENGAGED. ACFT MISSED WAYPOINT ON EAGUL ARR.

Synopsis

B737 FLT CREW ENCOUNTERS WAKE TURBULENCE DURING ARR AND BUMPS AUTOPLT INTO CWS INADVERTENTLY. ACFT FAILS TO MAKE NEXT TURN ON ARR AND IS NOTICED BY ATC.

Time / Day

Date : 200803 Local Time Of Day : 1201 To 1800

Place

Locale Reference.Airport : LAS.Airport State Reference : NV Altitude.MSL.Single Value : 7000

Environment

Aircraft : 1

Controlling Facilities.TRACON : L30.TRACON Operator.Common Carrier : Air Carrier Make Model Name : A320 Operating Under FAR Part : Part 121 Flight Phase.Descent : Approach Route In Use.Approach : Visual

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Experience.Flight Time.Last 90 Days : 150 Experience.Flight Time.Total : 22500 Experience.Flight Time.Type : 1300 ASRS Report : 779298

Person: 2

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

Events

Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Non Adherence : Published Procedure Anomaly.Other Anomaly : Speed Deviation Independent Detector.Other.Flight CrewA : 1 Resolutory Action.None Taken : Anomaly Accepted Consequence.FAA : Reviewed Incident With Flight Crew

Assessments

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

Narrative

LAS VEGAS APCH ATC IS UNDER THE WRONG IMPRESSION THAT WAKE TURB SEPARATION INTERVALS SPECIFIED IN THE AIM, AND REPEATED IN OUR ACR'S FOM ONLY APPLIES FOR IFR OP AND NOT FOR VFR. THIS WAS STATED TO ME BY ITS OPS MGR MR X. ATC DIRECTED MY BREAK OUT OF THE FINAL APCH SEGMENT AFTER I INSISTED THE NEED TO REDUCE AIRSPD TO OBTAIN REQUIRED SPACING BEHIND A B757. THAT ACFT WAS APCHING THE PARALLEL RWY (1L) WHICH IS SEPARATED LESS THAN 2500 FT FROM MY ASSIGNED RWY (RWY 1R). THE BREAKOUT ACTION COST OUR ACR 1500 LBS OF FUEL AND 10 MINS OPERATING TIME. THE LAS VEGAS ATC OPS MGR, MR X, SAID 'I NEEDED TO REQUEST WAKE TURB SEPARATION EARLY.' WAKE TURB SEPARATION STANDARDS ARE NORMALLY AUTOMATICALLY APPLIED BY MOST ATC, IRRESPECTIVE OF WX, FOR LNDG AND DEPARTING ACFT USING THE SAME RWY, PARALLEL RWYS SEPARATED BY LESS THAN 2500 FT, AND FOR SOME SITUATIONS, XING RWYS. THE PLT DOES NOT NEED, OR IS REQUIRED, TO REQUEST THE SEPARATION. I WAS ADVISED THE B757 WOULD BE ON THE PARALLEL RWY, BUT I DID NOT KNOW IF THAT ACFT WOULD BE IN FRONT, BEHIND, OR ABEAM MY PLANE. IN ADDITION, I WAS NOT YET ASSIGNED A LNDG RWY. THE MOMENT I WAS ASSIGNED A TURN TO BASE LEG. I REALIZED THE SITUATION AND NOTIFIED ATC OF THE CONFLICT. ATC CLRED ME FOR A VISUAL APCH AND REFUSED MY NEED TO REDUCE BELOW THE ASSIGNED SPD OF 170 KTS TO OBTAIN SEPARATION. SO, WHAT IS GOING ON HERE? WHY WAS I SEQUENCED OFF THE FINAL APCH SEGMENT DUE TO MY NEED TO OPERATE A SAFE FLT? MR X SAID I HAD ACFT BEHIND MINE. SINCE WHEN IS A LEAD ACFT ROUTED TO ACCOMMODATE FOLLOWING ACFT? CAN'T THE FOLLOWING ACFT ALSO SLOW OR DELAY ITS TURN TO BASE LEG? HAS THE WAKE TURB PHENOMENON OF THE LAST 40+ YRS GONE AWAY? DOES IT ONLY HAPPEN IN IFR CONDITIONS? THE IRONIC PART OF MY PHONE CONVERSATION WITH MR X WAS HIS COMMENT THAT 'OTHER PLTS ACCEPT REDUCED SEPARATION BEHIND B757'S AND HEAVIES ALL THE TIME.' HE DOESN'T UNDERSTAND THE PROB.

Synopsis

ACR ON APCH TO LAS QUESTIONED ATC'S APPLICATION OF WAKE TURBULENCE SEPARATION PROCS.

Time / Day

Date : 200803 Local Time Of Day : 1801 To 2400

Place

Locale Reference.Airport : SFO.Airport State Reference : CA Altitude.MSL.Single Value : 4000

Environment

Flight Conditions : Marginal

Aircraft : 1

Controlling Facilities.TRACON : NCT.TRACON Operator.Common Carrier : Air Carrier Make Model Name : B737-300 Operating Under FAR Part : Part 121 Navigation In Use.ILS.Localizer & Glide Slope : 28R Route In Use.Approach : Instrument Precision

Aircraft : 2

Controlling Facilities.TRACON : NCT.TRACON Operator.Common Carrier : Air Carrier Make Model Name : B757 Undifferentiated or Other Model Operating Under FAR Part : Part 121 Flight Phase.Descent : Approach

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Experience.Flight Time.Last 90 Days : 210 Experience.Flight Time.Total : 13000 Experience.Flight Time.Type : 9000 ASRS Report : 778214

Events

Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Other Anomaly Independent Detector.Other.Flight CrewA : 1 Resolutory Action.Flight Crew : Exited Adverse Environment Resolutory Action.Flight Crew : Regained Aircraft Control

Assessments

Problem Areas : Aircraft Problem Areas : Airspace Structure Problem Areas : Environmental Factor Problem Areas : Weather

Narrative

FO WAS FLYING, WE WERE ON THE ILS TO RWY 28R IN SFO ON GS 5 MILES BEHIND A B757. AT APPROX 4000 FT ENCOUNTERED SEVERE WAKE TURBULENCE REQUIRING FULL L AILERON AND FULL L RUDDER TO MAINTAIN A 30 DEG R BANK. THIS WAS FOLLOWED BY NEUTRAL CTLS THEN FULL R AILERON AND FULL R RUDDER TO MAINTAIN 20 DEG L BANK. WE GAINED CTL AND OFFSET TO THE R AND REMAINED HIGH ON GS FOR THE REMAINDER OF APCH. WE GOT THE RWYS IN SIGHT AND THEN WE WERE CLRED TO LAND RWY 28L. ON APCH WE HAD A 20 KT HEADWIND AND WHEN WE OFFSET THERE WAS A WIND SHIFT TO A R QUARTERING HEADWIND AND THEN BACK TO HEADWIND.

Synopsis

A B737 RPTS SEVERE WAKE TURB 5 NM IN TRAIL OF A B757 ON SFO RWY 28R. FULL L AND R AILERON INPUTS REQUIRED TO MAINTAIN ACFT CTL.

Time / Day

Date : 200803 Local Time Of Day : 1201 To 1800

Place

Locale Reference.Navaid : ELP.VORTAC State Reference : TX Altitude.MSL.Single Value : 39000

Environment

Flight Conditions : VMC Light : Daylight

Aircraft : 1

Controlling Facilities.ARTCC : ZAB.ARTCC Operator.Common Carrier : Air Carrier Make Model Name : B737-700 Operating Under FAR Part : Part 121 Flight Phase.Cruise : Level

Aircraft : 2

Controlling Facilities.ARTCC : ZAB.ARTCC Operator.Common Carrier : Air Carrier Make Model Name : B777 Undifferentiated or Other Model Operating Under FAR Part : Part 121 Flight Phase.Climbout : Vacating Altitude

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Experience.Flight Time.Last 90 Days : 194 Experience.Flight Time.Total : 25000 Experience.Flight Time.Type : 18000 ASRS Report : 777696

Person: 2

Affiliation.Company : Air Carrier Function.Flight Crew : First Officer Experience.Flight Time.Last 90 Days : 270 ASRS Report : 777689

Events

Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Non Adherence : Clearance Anomaly.Other Anomaly Independent Detector.Other.Flight CrewA : 1 Independent Detector.Other.Flight CrewB : 2 Resolutory Action.Controller : Issued New Clearance Resolutory Action.Flight Crew : Regained Aircraft Control

Assessments

Problem Areas : ATC Human Performance Problem Areas : Environmental Factor

Narrative

ENRTE TO HOUSTON EAST OF EL PASO WE ENCOUNTERED MODERATE TURBULENCE WITH A HARD L ROLL THAT EXCEEDED THE CAPABILITY OF THE AUTOPLT. I IMMEDIATELY DISCONNECTED THE AUTOPLT AND RECOVERED TO WINGS LEVEL ATTITUDE. DURING THE RECOVERY I INITIALLY LOST ABOUT 200 FT OF ALTITUDE IN TURBULENCE BEFORE REACHING SMOOTH AIR. WE CONTINUED TO LOSE AN ADDITIONAL 300 FT BEFORE ARRESTING THE DSCNT. OUR TOTAL LOSS OF ALTITUDE WAS 500 FT (FL385). DURING THE PROCESS, THE FO ADVISED ATC OF THE TURBULENCE AND AT THAT TIME THEY NOTICED THE DSCNT AND TOLD US TO MAINTAIN FL390. I TOLD THE FO THAT I WAS UNABLE TO MAINTAIN ALTITUDE AND TO ASK FOR AN IMMEDIATE LOWER ALTITUDE. AFTER ABOUT 30 SECONDS, I WAS ABLE TO RECOVER ABOUT 200 FT OF ALTITUDE BEFORE ABO CLRED US TO FL370. THE REMAINDER OF THE FLT WAS UNEVENTFUL. DURING THE PRECEDING MOMENTS OF THE FLT, I NOTICED AN AIRPLANE THAT WAS CLBING OFF OF OUR L SIDE. HE LEVELED AT FL370; HE WAS FASTER THAN WE WERE AND WHEN HE WAS ABOUT 12 MILES AHEAD OF US, HE WAS ISSUED FL390. OUR COURSES CONVERGED E OF EL PASO AND THAT WAS WHERE THE UPSET OCCURRED. AFTER THE EVENT I ASKED THE CTLR WHAT TYPE OF AIRPLANE HE HAD CLBED IN FRONT OF US, HE RELUCTANTLY ADMITTED THAT IT WAS ANOTHER CARRIER B777. THE ONLY ACTION THAT COULD HAVE PREVENTED THIS EVENT WOULD BE FOR THE CTLR WHO ISSUED THE CLB TO HAVE CONSIDERED THE EFFECT WAKE TURBULENCE HAS (ESPECIALLY HEAVY WIDEBODY AIRPLANES) ON OTHER ACFT AND ALLOW SUFFICIENT ROOM BETWEEN THEM. AS PLTS, WE ALL UNDERSTAND THAT THE EFFECTS OF WAKE TURBULENCE CAN BE FELT FOR 30 MILES OR MORE BEHIND HEAVY ACFT. YOU WOULD THINK THAT CTLRS WOULD HAVE ACCESS TO THE SAME INFO!

Synopsis

B737-700 ENCOUNTERED WAKE TURB AT CRUISE ALT. ACFT ROLLED AND LOST 500 FT BEFORE DSCNT WAS ARRESTED.

Time / Day

Date : 200803 Local Time Of Day : 0601 To 1200

Place

Locale Reference.Airport : ZZZ.Airport State Reference : US Altitude.MSL.Single Value : 24000

Aircraft : 1

Controlling Facilities.ARTCC : ZZZ.ARTCC Operator.Common Carrier : Air Carrier Make Model Name : Dash 8-400 Operating Under FAR Part : Part 121 Flight Phase.Descent : Intermediate Altitude Route In Use.Arrival.STAR : N/S

Aircraft : 2

Controlling Facilities.ARTCC : ZZZ.ARTCC Make Model Name : MD-80 Series (DC-9-80) Undifferentiated or Other Model

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Qualification.Pilot : ATP Experience.Flight Time.Last 90 Days : 150 Experience.Flight Time.Total : 16000 Experience.Flight Time.Type : 750 ASRS Report : 777409

Events

Anomaly.Altitude Deviation : Excursion From Assigned Altitude Anomaly.Inflight Encounter : Wake Turbulence Independent Detector.Other.Flight CrewA : 1 Resolutory Action.Flight Crew : Returned To Assigned Altitude Resolutory Action.Flight Crew : Took Precautionary Avoidance Action Consequence.FAA : Reviewed Incident With Flight Crew

Assessments

Problem Areas : ATC Human Performance Problem Areas : Environmental Factor

Narrative

FLT WAS ENRTE TO ZZZ LEVEL AT FL240. WE WERE ON THE XYZ ARR. WE WERE IN AND OUT OF VERY THIN CIRRUS TYPE CLOUDS AND SMOOTH AIR. WE STARTED

TO EXPERIENCE LIGHT CHOP THAT INCREASED SLIGHTLY IN INTENSITY. I NOTICED AT THAT TIME THE ACFT WAS ROLLING TO THE L AND THE CTL YOKE WAS AT APPROX 25 DEGS DEFLECTED TO THE R. I TURNED THE AUTOPLT OFF AND THE ACFT CONTINUED TO ROLL L TO 25 TO 30 DEGS. IN AN ATTEMPT TO REGAIN CTL I LOWERED THE NOSE AND CONTINUED THE CTL INPUT TO STOP THE ROLL. I STABILIZED THE ROLL AND DSCNT AND BEGAN CLBING BACK TO THE CLRNC ALTITUDE. WHEN WE STARTED THE DSCNT A CALL WAS IMMEDIATELY MADE TO ATC DECLARING OUR ACTIONS. THIS CALL WENT UNANSWERED. AS WE DSNDED WE COULD SEE THAT THE CLOUDS WE WERE IN WAS ACTUALLY A CONTRAIL FROM ANOTHER ACFT AND THE TURBULENCE WE FELT WAS THEIR WAKE TURBULENCE. I ASKED ATC WHAT WE WERE FOLLOWING AND AFTER 2 CALLS HE TOLD US WE WERE 8 MILES BEHIND AN MD80 ALSO AT FL240 AND TO RETURN TO FL240 AND APOLOGIZED FOR THE SITUATION. WE SAID WE WOULD COMPLY BUT WE WOULD OFFSET THE COURSE TO AVOID FURTHER WAKE TURBULENCE. THE REST OF THE FLT WAS UNEVENTFUL. I CAN ONLY COME TO THE CONCLUSION THAT THE SEPARATION BETWEEN ACFT WAS NOT ADEQUATE. IT MIGHT BE POSSIBLE THAT UNIQUE ATMOSPHERIC CONDITIONS WERE PRESENT TO CAUSE THE WAKE TURBULENCE FROM THE MD80 TO REMAIN AT THE ALTITUDE. I DON'T THINK ANYONE IS AT FAULT FOR THE SITUATION AND THE ALTITUDE EXCURSION WAS A RESULT OF THE ACFT UPSET.

Synopsis

A Q400 AT FL240 8 NM IN TRAIL OF AN MD80 EXPERIENCED WAKE TURBULENCE.

Time / Day

Date : 200803

Place

Locale Reference.Airport : LAX.Airport State Reference : CA

Environment

Flight Conditions : VMC Light : Daylight

Aircraft : 1

Controlling Facilities.TRACON : SCT.TRACON Operator.Common Carrier : Air Carrier Make Model Name : B737-300 Operating Under FAR Part : Part 121 Flight Phase.Descent : Approach Route In Use.Approach : Visual

Aircraft : 2

Controlling Facilities.TRACON : SCT.TRACON Make Model Name : B737 Undifferentiated or Other Model Flight Phase.Descent : Approach Route In Use.Approach : Visual

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Experience.Flight Time.Last 90 Days : 187 Experience.Flight Time.Type : 187 ASRS Report : 776801

Person: 2

Affiliation.Company : Air Carrier Function.Flight Crew : First Officer Experience.Flight Time.Last 90 Days : 288 Experience.Flight Time.Type : 2550 ASRS Report : 776802

Events

Anomaly.Incursion : Landing Without Clearance Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Non Adherence : Company Policies Anomaly.Non Adherence : FAR Anomaly.Non Adherence : Published Procedure Independent Detector.Other.Flight CrewA : 1 Independent Detector.Other.Flight CrewB : 2 Resolutory Action.None Taken : Detected After The Fact

Assessments

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

Narrative

ON APCH TO RWY 24R AT LAX WE WERE CLRED FOR THE VISUAL FOLLOWING A B747 AHEAD. THE FO NOTED THAT THE B747 WAS SLIGHTLY ABOVE THE GS, SO I WAS FLYING ABOUT ONE DOT HIGH ON THE GS. EVEN THEN WE COULD OCCASIONALLY FEEL THE ROUGH AIR FROM THE HEAVY. WE WERE BOTH PREOCCUPIED WITH THE WAKE TURBULENCE AVOIDANCE AND APCH CTL FORGOT TO HAND US OVER TO THE TWR. WE THEN LANDED NORMALLY AND AFTER THE ROLLOUT REALIZED WE WERE STILL ON THE APCH FREQUENCY AND HAD NEVER BEEN CLRED TO LAND. WE IMMEDIATELY SWITCHED TO THE TWR FREQUENCY AND TWR CLRED US TO CROSS RWY 24L AND CONTACT GND. THEY DID NOT INDICATE ANYTHING WAS OUT OF THE ORDINARY. WE SHOULD HAVE PICKED UP ON ATC'S FAILURE TO HAND US OVER TO THE TWR. NORMALLY, I CONFIRM AT 1000 FT THAT WE ARE CLRED TO LAND BY CHKING THE LNDG LIGHTS. I WAS OUT OF MY NORMAL SEQUENCE BECAUSE OF WORRYING ABOUT THE WAKE TURBULENCE.

Synopsis

AN ACR CREW IN TRAIL OF A B747 AND CONCERNED ABOUT IMPENDING WAKE TURB FAILED TO NOTICE THEY WERE NOT HANDED OVER TO LAX TWR FOR LNDG CLRNC.

Time / Day

Date : 200710 Local Time Of Day : 0001 To 0600

Place

Locale Reference.Airport : ORD.Airport State Reference : IL Altitude.MSL.Single Value : 6000

Environment

Aircraft : 1

Controlling Facilities.TRACON : C90.TRACON Operator.Common Carrier : Air Carrier Make Model Name : B737-300 Operating Under FAR Part : Part 121 Flight Phase.Climbout : Initial

Aircraft : 2

Controlling Facilities.TRACON : C90.TRACON Operator.Common Carrier : Air Carrier Make Model Name : Airbus Industrie Undifferentiated or Other Model Operating Under FAR Part : Part 121 Flight Phase.Climbout : Initial

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Experience.Flight Time.Last 90 Days : 180 Experience.Flight Time.Total : 8000 Experience.Flight Time.Type : 2000 ASRS Report : 776281

Person: 2

Affiliation.Company : Air Carrier Function.Flight Crew : First Officer Experience.Flight Time.Last 90 Days : 120 Experience.Flight Time.Total : 11000 Experience.Flight Time.Type : 3300 ASRS Report : 776282

Events

Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Other Anomaly Independent Detector.Other.Flight CrewA : 1 Independent Detector.Other.Flight CrewB : 2 Resolutory Action.Flight Crew : Regained Aircraft Control

Assessments

Problem Areas : Environmental Factor

Narrative

WE DEPARTED RWY 22L WITH PROPER SPACING BEHIND A LARGE AIRBUS. AFTER OUR INITIAL CONTACT WITH DEP ABOUT 4 OR 5000 FT, WE WERE GIVEN A TURN TO 090 DEGS AND STARTED A CLB AS DIRECTED OUT OF 5000 FT. I NOTICED THE AIRBUS WAS NOW WELL TO OUR NE AND ABOVE US. OUT OF 6000 FT WE ENCOUNTERED THE WAKE OF THE AIRBUS AND OUR B737 ROLLED RAPIDLY, BUT GENTLY TO ABOUT 40-50 DEGS OF BANK TO THE L. JUST AS QUICKLY, WE THEN ROLLED BACK TO ABOUT 30-40 DEGS TO THE R. MILD WHEEL AND RUDDER INPUTS WERE INITIALLY INEFFECTIVE TO COUNTER THE ROLL, BUT VERY QUICKLY, THE ACFT RESPONDED GENTLY TO MY INPUTS AND WE ROLLED BACK. TO WINGS LEVEL, STILL IN A CLB AND ON SPEED. THE EFFECT OF THE WAKE LASTED LESS THAN 5 SECONDS. I AGAIN SAW THE AIRBUS WELL ABOVE AND OFF TO OUR L HEADING NE. THE FO IMMEDIATELY ASKED THE PURSER IF ALL WAS IN ORDER IN THE CABIN AND SHE REPORTED SOME MILD ALARM, BUT NO DAMAGE OR INJURIES. SINCE WE IN OUR INITIAL CLB, ALL CREW AND PAX WERE STILL IN THEIR SEATS WITH THE SEATBELT SIGN ON. I DO NOT RECALL IF EITHER OF US MADE A RPT AT THAT TIME TO ATC. THE FO DID COMMENT TO THE PAX AT THAT TIME AND AT LEVEL OFF, I MADE A FAIRLY DETAILED ANNOUNCEMENT TO THE PAX AS TO THE INCIDENT AND THE CAUSE. THE PURSER EXAMINED THE CABIN AGAIN AND RPTED NO CONCERN AMONG THE PAX AND WE PROCEEDED TO ZZZ. DURING DEPLANING, A FEW PAX SPOKE TO US AND THERE WAS NO FEELING OF CONCERN OR NEGATIVE EFFECTS.

Synopsis

B737-300 DEPARTED WITH RECOMMENDED SPACING BEHIND A LARGE AIRBUS. DURING CLIMBOUT, WAKE TURB WAS ENCOUNTERED, RESULTING IN A ROLL IN EXCESS OF 40 DEGS OF BANK.

Time / Day

Date : 200802

Place

Locale Reference.Airport : SFO.Airport State Reference : CA Altitude.AGL.Single Value : 250

Environment

Flight Conditions : VMC

Aircraft : 1

Controlling Facilities.Tower : SFO.Tower Operator.Common Carrier : Air Carrier Make Model Name : B737-300 Operating Under FAR Part : Part 121 Flight Phase.Descent : Approach

Aircraft : 2

Controlling Facilities.Tower : SFO.Tower Operator.Common Carrier : Air Carrier Make Model Name : B737 Undifferentiated or Other Model Operating Under FAR Part : Part 121 Flight Phase.Climbout : Initial

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : First Officer Experience.Flight Time.Last 90 Days : 224 Experience.Flight Time.Type : 3000 ASRS Report : 775554

Person : 2

Affiliation.Government : FAA Function.Controller : Local

Events

Anomaly.Conflict : Airborne Critical Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Non Adherence : Required Legal Separation Independent Detector.Other.ControllerA : 2 Resolutory Action.Controller : Issued New Clearance Resolutory Action.Flight Crew : Executed Go Around Resolutory Action.Flight Crew : Took Precautionary Avoidance Action

Assessments

Problem Areas : ATC Human Performance Problem Areas : Airport

Narrative

WE WERE VECTORED FOR THE ILS RWY 19L IN SFO. WX WAS AROUND 3000 FT AND VISIBILITY BETTER THAN 5 MILES. WE WERE CLRED FOR THE ILS (APCH), FOLLOWED BY CLRNC TO LAND. THERE WAS A HEAVY ACFT ABOUT 5 MILES AHEAD WHICH LANDED SAFELY. SHORTLY AFTER WE WERE CLRED TO LAND, WE HEARD ANOTHER COMPANY ACFT WAS CLRED FOR TAKEOFF FROM RWY 10. WE WERE ASKED TO SLOW TO APCH SPEED. HOWEVER, WE WERE ALREADY THERE. WE COULD NOT BELIEVE IT. I SAW IT AND AFTER I (FO/PM) MADE MY 300 FT CALLOUT, WE WERE SENT AROUND. LAST TIME I SAW COMPANY ACFT IT WAS ROTATING AND WITH RELATIVE MOVEMENT ACROSS OUR WINDSCREEN. NEXT TIME IT WAS ON OUR 10: 30 POSITION AND CLIMBING. BASED ON RWY LENGTH AND INITIATION OF GA, I AM ESTIMATING WE WERE WITHIN 2000 TO 1500 FT OF EACH OTHER. WE EVEN FELT THE WAKE AS WE WERE CLBING. THE PURPOSE OF THIS RPT IS TO FIND OUT IF THIS WAS AN HONEST MISTAKE OR A RECURRENT SITUATION. AFTER VECTORS AROUND THE PATTERN WE LANDED SAFELY AT SFO.

Synopsis

B737 ON APCH TO RWY 19L AT SFO MUST GAR TO AVOID CONFLICT WITH DEP OFF ONE OF THE RWY 10'S.

Time / Day

Date : 200802 Local Time Of Day : 1801 To 2400

Place

Locale Reference.Airport : DFW.Airport State Reference : TX Altitude.MSL.Single Value : 25500

Environment

Flight Conditions : VMC Light : Night

Aircraft : 1

Controlling Facilities.ARTCC : ZFW.ARTCC Operator.Common Carrier : Air Carrier Make Model Name : MD-80 Series (DC-9-80) Undifferentiated or Other Model Operating Under FAR Part : Part 121 Flight Phase.Climbout : Vacating Altitude

Aircraft : 2

Controlling Facilities.ARTCC : ZFW.ARTCC Operator.Common Carrier : Air Carrier Make Model Name : B737-800 Operating Under FAR Part : Part 121 Flight Phase.Climbout : Vacating Altitude

Person : 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC ASRS Report : 775138

Person: 2

Affiliation.Government : FAA Function.Controller : Approach

Events

Anomaly.Inflight Encounter : Wake Turbulence Independent Detector.Other.Flight CrewA : 1 Resolutory Action.Flight Crew : Took Precautionary Avoidance Action Consequence.FAA : Reviewed Incident With Flight Crew

Assessments

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

Narrative

DEPARTED DFW BEHIND A B737-800, A WINGLET ACFT. ON THE RNAV DEP CLBING THROUGH APPROX 10000 FT WE HAD OUR FIRST ENCOUNTER WITH WAKE TURBULENCE FORM THE WINGLET B737 WITH LIGHT TURBULENCE AND A 25-30 DEG UNCOMMANDED ROLL. TCAS HAD THE B737 10 MILES AHEAD AND HIGHER. LATER IN THE CLB, AND I THINK WE WERE ON FORT WORTH CTR, WE WERE ASKED WHAT RATE ARE WE CLBING AT. I SAID 800-1000 FPM. WHILE CLBING THROUGH FL255 CLRED UP TO FL320 WE WERE ASKED IF WE COULD BE OUT OF FL290 IN 3 MINS. A 3500 FT CLB IN 3 MINS. I SAID I CAN'T TAKE A TIME TO CLB BUT I WILL TAKE A TURN. THE CTLR CAME BACK IN A VERY CONDESCENDING AND ARGUMENTATIVE TONE WITH 'YOU CAN'T GIVE ME A TIME TO CLB, YOU CAN'T CLB AT A THOUSAND FT FOR 3 MINS!' AS THE CTLR WAS SAYING THIS WE GOT HIT FOR A SECOND TIME BY THE B737'S WAKE WITH HEAVIER TURBULENCE THAN BEFORE AND WITH TWO UNCOMMANDED 25-30 DEG L ROLLS. THE B737 WAS 11 MILES AHEAD AND 3 THOUSAND FT ABOVE ON TCAS. WHEN THE CTLR STOPPED TALKING, I SAID WE ARE HITTING THE B737'S WAKE, EITHER GIVE ME A TURN OR BE QUIET! A 30 DEG L TURN WAS GIVEN AND WE CONTINUED TO HIT WAKE TURB DURING TURN. THIS CTLR'S ATTITUDE WAS UNACCEPTABLE. HAD I ACCEPTED THE TIME TO CLB AND EXPEDITED MY CLB RATE AND DECREASED MY AIRSPEED AND SAFETY MARGIN AND THEN HIT THE WAKE TURBULENCE AND THE UNCOMMANDED ROLL IT WOULD HAVE BEEN VERY DIFFICULT TO CTL THE ACFT AND MAKE MY 3500 FT 3 MIN TIME TO CLB. I ALSO THINK THAT THE ADVERSE WAKE TURBULENCE OF THE B737-800 WITH WINGLETS NEEDS TO BE INVESTIGATED FURTHER.

Synopsis

MD80 ENCOUNTERS WAKE TURBULENCE FROM B737-800 ON CLBOUT.

Time / Day

Date : 200802 Local Time Of Day : 1801 To 2400

Place

Locale Reference.Airport : ATL.Airport State Reference : GA Altitude.MSL.Single Value : 3500

Environment

Flight Conditions : VMC Light : Night

Aircraft : 1

Controlling Facilities.TRACON : A80.TRACON Operator.Common Carrier : Air Carrier Make Model Name : MD-80 Series (DC-9-80) Undifferentiated or Other Model Operating Under FAR Part : Part 121 Flight Phase.Descent : Approach

Aircraft : 2

Controlling Facilities.TRACON : A80.TRACON Operator.Common Carrier : Air Carrier Make Model Name : B767-400 and 400 ER Operating Under FAR Part : Part 121 Flight Phase.Descent : Approach

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC ASRS Report : 775137

Events

Anomaly.Inflight Encounter : Wake Turbulence Independent Detector.Other.Flight CrewA : 1 Resolutory Action.Controller : Issued Advisory Resolutory Action.Flight Crew : Took Evasive Action

Assessments

Problem Areas : Airspace Structure Problem Areas : FAA Problem Areas : Weather

Narrative

THE PURPOSE OF THIS RPT IS TO DOCUMENT A WAKE TURB EVENT WHICH OCCURRED ON THE FINAL APCH COURSE FOR RWY 28 INTO ATLANTA. WE FLEW THE HONIE ARR AND WERE GIVEN A DSCNT TO 3500 FT ON DOWNWIND. THE BASE TURN RESULTED IN AN EXTENDED FINAL, WITH THE ACFT ASSIGNED 170 KTS AND CONFIGURED TO 15 DEG FLAPS. APCH CTL INFORMED US THAT THE ACFT WAS 6 MILES IN TRAIL OF A HEAVY ACFT (LATER DETERMINED TO BE A B767-400) AND CAUTION FOR POSSIBLE WAKE TURB. WE TRACKED SAID TFC BOTH VISUALLY AND ON TCAS. THE HEAVY TFC INTERCEPTED THE FINAL ABOVE OUR ALT AND STARTED DSCNT ON THE RWY 28 FINAL APCH COURSE. ON APPROX 8 MILE FINAL INTERCEPTING THE GS WE PERFORMED AN INSTANTANEOUS UNCOMMANDED ROLL R TO APPROX 60 DEGS ANGLE OF BANK. PF KICKED OFF THE AUTOPLT AND RECOVERED TO WINGS LEVEL. THE ACFT THEN PERFORMED AN INSTANTANEOUS UNCOMMANDED ROLL L TO APPROX 60 DEGS ANGLE OF BANK. PF AGAIN RECOVERED TO WINGS LEVEL. THE FLT CREW THEN INFORMED APCH CTL THEY WERE SLOWING THE ACFT FOR ADDITIONAL SPACING ON TFC AHEAD. APCH CTL RESTR US TO NO SLOWER THAN 160 KTS. WE WERE ALREADY AT 150 KTS, AND WITH NO MORE INDICATION OF WAKE TURB COMPLETED APCH UNTIL CONFIGURING AT 160 KTS. THE REST OF THE APCH AND LNDG WAS COMPLETED WITHOUT FURTHER INCIDENT. ON THE GND THE CREW INFORMED ATC OF THE EVENT. DISPATCH ALSO INFORMED OF INCIDENT. THE UPSET RECOVERY TRAINING RECEIVED DURING RECURRENT SIMULATOR TRAINING WAS/IS EXTREMELY APPLICABLE TO THIS EVENT. THE INSTANTANEOUS NATURE OF THE UPSET AND HOW IT LOOKS AND FEELS IN THE SIMULATOR WAS CONSISTENT WITH THE ACFT'S PERFORMANCE DURING THE WAKE TURB ENCOUNTER AND RECOVERY. ALSO, THE RECOVERY TECHNIQUE WAS EFFECTIVE. AUTOPLT OFF, RECOVER WITH AILERON, VERY LITTLE RUDDER.

Synopsis

MD80 FLT CREW RPTS WAKE TURBULENCE ENCOUNTER WITH PRECEDING B767-400 ON APCH TO RWY 28 AT ATL.

Time / Day

Date : 200802

Place

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

Environment

Flight Conditions : IMC Weather Elements : Turbulence Light : Night

Aircraft : 1

Controlling Facilities.Tower : ZZZ.Tower Operator.Common Carrier : Air Carrier Make Model Name : Medium Large Transport, Low Wing, 2 Turbojet Eng Operating Under FAR Part : Part 121 Flight Phase.Landing : Missed Approach

Person : 1

Affiliation.Company : Air Carrier Function.Flight Crew : First Officer ASRS Report : 774341

Person : 2

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Experience.Flight Time.Last 90 Days : 292 Experience.Flight Time.Type : 7500 ASRS Report : 774337

Events

Anomaly.Altitude Deviation : Overshoot Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Inflight Encounter : Weather Anomaly.Other Anomaly Anomaly.Other Anomaly : Speed Deviation Independent Detector.Other.Flight CrewA : 1 Independent Detector.Other.Flight CrewB : 2 Resolutory Action.Flight Crew : Diverted To Another Airport Resolutory Action.Flight Crew : Executed Go Around Resolutory Action.Flight Crew : Exited Adverse Environment

Assessments

Problem Areas : Environmental Factor Problem Areas : Weather

Narrative

I WAS THE PF. WE WERE BEING VECTORED FOR AN ILS TO RWY 12R. ON DOWNWIND AND BASE TO FINAL, WE WERE EXPERIENCING CONTINUOUS MODERATE TURB. AT APPROX 4 MI ON FINAL (LOC CAPTURE) SEVERE TURB WAS ENCOUNTERED. I GOT THE STICK SHAKER FOR APPROX 1-2 SECONDS AND A GAR WAS INITIATED. DURING THE GAR (APPROX 4200-4500 FT MSL) WE WERE GIVEN A 050 DEG HDG AND CLB TO 5000 FT. THE VVI WAS PEGGED AT 6000 FPM CLB. I RECOVERED THE ACFT AT APPROX 5700-5800 FT AND INITIATED A CORRECTION BACK TO 5000 FT MSL. NO KNOWN ATC ISSUES ON THE GAR AND THEY WERE INFORMED OF OUR DEV. RECOVERED UNEVENTFULLY TO OUR DEST. SUPPLEMENTAL INFO FROM ACN 774337: ON ARR, FRONT WAS APCHING ARPT BUT RADAR INDICATED STRONG CELLS STILL NW ON THE ILS TO RWY 12R. WE ARRIVED FROM S DUE TO ATC ROUTING TFC AWAY FROM STORMS. ON DOWNWIND, NO SIGNIFICANT WX WAS SEEN BUT AS WE WERE NEAR A POS TO TURN BASE, ATC TURNED US 20 DEGS L WHICH TOOK US TOWARD A CELL. WE WERE ON A R DOWNWIND CLOSE TO ARPT AND CTLR MIGHT HAVE TAKEN US WIDER TO MAKE TURN TO FINAL. RIDE DETERIORATED TO CONSTANT MODERATE TURB AS WE CONFIGURED FOR LNDG AND TURNED BASE. WE WERE THEN GIVEN AN INTERCEPT HDG AND INTERCEPTED FINAL. WE THEN ENCOUNTERED SEVERE TURB. INSTS WERE DIFFICULT TO READ AND DIFFICULT TO CHANGE RADIO FREQ TO TWR. FO WAS FLYING AND WAS WORKING THRUST LEVERS TO MAINTAIN AIRSPD BUT WE EVENTUALLY GOT THE STICK SHAKER UPON WHICH I ORDERED A GAR. AS WE INITIATED MISS APCH, TOLD TWR WE WERE IN SEVERE TURB AND THEY HANDED US OFF TO DEP. I TOLD THEM WE NEEDED TO GO L AND NEEDED AN ALT ASSIGNMENT. THEY GAVE US A 050 DEG HDG AND 5000 FT. WE CONTINUED TO STRUGGLE WITH THE AIRPLANE GETTING IT CLEANED UP AND TURNED. WE WERE STILL IN SEVERE TURB (THIS WOULD BE 60-90 SECONDS) AFTER GAR). MY ATTN WAS ON RADAR TO GET A CLR AREA AND WHEN I CHKED ALTIMETER WE WERE AT 5900 FT AND I INSTRUCTED FO TO RETURN TO 5000 FT AND ADVISED ATC WE WERE RETURNING TO 5000 FT. THEY ACKNOWLEDGED AND CONTINUED VECTORING US AWAY FROM WX. THIS EPISODE LASTED APPROX 2 MINS AS DID THE SEVERE TURB. NO TFC AROUND US TO CONFLICT WITH. MY FIRST CONCERN WAS TO KEEP CTL OF ACFT, THEN FLY HDGS AND ALT.

Synopsis

A B737 ENCOUNTERED SEVERE TURB ON APCH WITH A STALL WARNING. DURING THE GAR THE ASSIGNED ALT WAS EXCEEDED BY ABOUT 800' DURING A 6,000 FPM CLB.

Time / Day

Date : 200802 Local Time Of Day : 0601 To 1200

Place

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

Environment

Flight Conditions : VMC Light : Daylight

Aircraft : 1

Controlling Facilities.Tower : ZZZ.Tower Operator.General Aviation : Personal Make Model Name : PA-28 Cherokee/Archer II/Dakota/Pillan/Warrior Operating Under FAR Part : Part 91 Flight Phase.Landing : Roll

Aircraft : 2

Controlling Facilities.Tower : ZZZ.Tower Make Model Name : B737 Undifferentiated or Other Model Flight Phase.Descent : Approach Flight Phase.Landing : Roll

Person: 1

Affiliation.Other : Personal Function.Flight Crew : Single Pilot Qualification.Pilot : Private Experience.Flight Time.Last 90 Days : 6 Experience.Flight Time.Total : 220 Experience.Flight Time.Type : 220 ASRS Report : 773765

Events

Anomaly.Excursion : Runway Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Other Anomaly Independent Detector.Other.Flight CrewA : 1 Resolutory Action.None Taken : Unable Consequence.Other : Aircraft Damaged

Assessments

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

Narrative

DURING FINAL APCH FOR LNDG. I NOTICED AN UNUSUAL DRIFT TO THE R OF CTRLINE BUT WAS ABLE TO CORRECT. DURING TOUCHDOWN A STRONG GUST LIFTED THE L WING CAUSING THE R WING TO MAKE CONTACT WITH THE GND. EVEN WITH FULL AILERON DEFLECTION I WAS UNABLE TO AVOID THIS EVENT. WHEN THE NOSEWHEEL MADE CONTACT IT MUST HAVE BEEN TURNED TO THE L WHICH SLIGHTLY BENT THE NOSEWHEEL STRUT. THIS CAUSED THE ACFT TO TURN L AND VEER OFF THE RWY INTO THE GRASS ALMOST AT A 180 DEG DIRECTION FROM THE ORIGINAL RWY HDG. ONLY TFC WAS A B737 LNDG ON RWY XXL AND I PLANNED TO TOUCH DOWN SLIGHTLY FURTHER DOWN THE RWY THAN USUAL JUST BETWEEN TXWYS DELTA AND PAPA. A POSSIBLE CONTRIBUTING FACTOR COULD HAVE BEEN WAKE TURBULENCE WHICH MAY HAVE DRIFTED OVER TO RWY XXR FROM A B737 WHICH LANDED JUST BEFORE ME ON RWY XXL. THE CROSSWIND WAS FROM THE SW (24013 KTS) FUTURE ACTION FOR ME WILL BE TO GAR WHEN AN UNUSUAL GUST OF THIS TYPE IS EXPERIENCED ON FINAL APCH.

Synopsis

PA28 ENCOUNTERS LIKELY WAKE VORTEX TURB FROM B737 LNDG ON UPWIND PARALLEL RWY.

Time / Day

Date : 200801 Local Time Of Day : 0601 To 1200

Place

Locale Reference.Airport : ZZZZ.Airport State Reference : FO Altitude.MSL.Single Value : 33000

Environment

Flight Conditions : IMC

Aircraft : 1

Controlling Facilities.ARTCC : ZZZZ.ARTCC Operator.Common Carrier : Air Carrier Make Model Name : B777-200 Operating Under FAR Part : Part 121 Flight Phase.Cruise : Level

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : First Officer Function.Observation : Company Check Pilot Experience.Flight Time.Last 90 Days : 80 Experience.Flight Time.Total : 20000 Experience.Flight Time.Type : 3200 ASRS Report : 769622

Person : 2

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Experience.Flight Time.Last 90 Days : 150 Experience.Flight Time.Total : 18000 Experience.Flight Time.Type : 10 ASRS Report : 769955

Events

Anomaly.Inflight Encounter : Wake Turbulence Independent Detector.Other.Flight CrewA : 1

Assessments

Problem Areas : Environmental Factor

Narrative

RIGHT AFTER LEVELING AT FL330 CRUISE AND ON A VECTOR FROM CONTROL WE HIT THE WAKE OF ANOTHER AIRCRAFT. MOST OF THE AIRCRAFT IN OUR AREA WERE TO OUR LEFT OR RIGHT. NO TCAS ACFT ON OUR TRACK. WE HAD A MODERATE TURBULENCE EVENT ASSOCIATED WITH MOST LIKELY ACFT WAKE LASTING SEVERAL SECONDS. CONDITIONS AT THE TIME WERE IMC, LIGHT CHOP WITH THE SEATBELT SIGN ON. THE FLT ATTENDANTS HAD STARTED THEIR SERVICE AND CARTS WERE COMING OUT OF THE GALLEYS. FIRST REPORT FROM THE CABIN WAS THAT NO ONE WAS INJURED. LATER A FLT ATTENDANT REPORTED HAVING LOWER BACK PAIN. SHE WAS MANEUVERING A BEVERAGE CART AT THE TIME OF THE EVENT AND MAY HAVE STRAINED HER BACK. SHE TOOK A PAIN RELIEVER AND CONTINUED HER IN-FLIGHT DUTIES.

Synopsis

B777 ENCOUNTERED WAKE TURB AT CRUISE ALT.

Time / Day

Date : 200801 Local Time Of Day : 0001 To 0600

Place

Locale Reference.Airport : SFO.Airport State Reference : CA Altitude.MSL.Single Value : 3400

Environment

Flight Conditions : IMC

Aircraft : 1

Controlling Facilities.TRACON : NCT.TRACON Operator.Common Carrier : Air Carrier Make Model Name : B757-200 Operating Under FAR Part : Part 121 Navigation In Use.ILS.Localizer & Glide Slope : 28R Flight Phase.Descent : Approach Route In Use.Approach : Instrument Precision Route In Use.Arrival : On Vectors

Aircraft : 2

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer Navigation In Use.ILS.Localizer & Glide Slope : 28R Flight Phase.Descent : Approach Route In Use.Approach : Instrument Precision

Person : 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Experience.Flight Time.Last 90 Days : 120 Experience.Flight Time.Total : 16500 Experience.Flight Time.Type : 3400 ASRS Report : 769395

Person: 2

Affiliation.Company : Air Carrier Function.Flight Crew : First Officer Experience.Flight Time.Last 90 Days : 212 Experience.Flight Time.Total : 9800 Experience.Flight Time.Type : 3200 ASRS Report : 769119

Person: 3

Affiliation.Government : FAA Function.Controller : Approach

Events

Anomaly.Inflight Encounter : Wake Turbulence Independent Detector.Other.Flight CrewA : 1 Independent Detector.Other.Flight CrewB : 2 Resolutory Action.None Taken : Anomaly Accepted

Assessments

Problem Areas : ATC Human Performance Problem Areas : Airspace Structure Problem Areas : Environmental Factor

Narrative

VECTORS TO LOC RWY 28R, CLRED TO INTERCEPT RWY 28R LOC, AT 4000 FT ESTABLISHED ON LOC. THEN CLRED TO MAINTAIN 3000 FT AND CLRED FOR THE APCH. WE ARMED THE AUTOPILOTS AND STARTED TO DSND TO 3000 FT. AT 3400 FT NORCAL CALLED AND ASKED OUR ALTITUDE. WE SAID 3400 FT. HE SAID TO LEVEL OFF AND INTERCEPT THE GS AT THAT ALTITUDE. WE WERE ABOUT 5 MILES IN TRAIL OF THE LEADING ACFT, AND ENCOUNTERED A LITTLE WAKE TURB OFF HIM. AFTER ESTABLISHED ON FULL ILS APCH AND LNDG WERE NORMAL.

Synopsis

A B757-200 ENCOUNTERED WAKE TURBULENCE 5 MILES IN TRAIL OF SFO RWY 28R LOC TFC AT ABOUT 3400 FT.

Time / Day

Date : 200712 Local Time Of Day : 0001 To 0600

Place

Locale Reference.Airport : BOS.Airport State Reference : MA

Environment

Flight Conditions : VMC Weather Elements : Turbulence Light : Night

Aircraft : 1

Controlling Facilities.TRACON : A90.TRACON Operator.Common Carrier : Air Carrier Make Model Name : EMB ERJ 170/175 ER&LR Operating Under FAR Part : Part 121 Flight Phase.Climbout : Initial Route In Use.Departure : On Vectors

Aircraft : 2

Controlling Facilities.TRACON : A90.TRACON Operator.Common Carrier : Air Carrier Make Model Name : B757 Undifferentiated or Other Model Operating Under FAR Part : Part 121 Route In Use.Departure : On Vectors

Person : 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Experience.Flight Time.Last 90 Days : 242 Experience.Flight Time.Type : 300 ASRS Report : 768121

Events

Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Non Adherence : Clearance Anomaly.Other Spatial Deviation Independent Detector.Other.Flight CrewA : 1 Resolutory Action.Controller : Issued New Clearance Resolutory Action.Flight Crew : Exited Adverse Environment Resolutory Action.Flight Crew : Took Precautionary Avoidance Action Consequence.FAA : Reviewed Incident With Flight Crew

Assessments

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

Narrative

AFTER DEPARTING BOS RWY 9 BEHIND A 757 ON A HDG OF 093 DEGS, WE WERE ASSIGNED A R TURN TO A HDG OF 180 DEGS. I MISTAKENLY SCROLLED THE HDG BUG TO THE L AND THE AUTOPLT TURNED L AS DIRECTED. THE PNF CALLED ALOUD 'RIGHT TURN, RIGHT TURN' A MOMENT LATER AND SEVERAL DEGS IN THE WRONG DIRECTION, IT OCCURRED TO ME THAT I HAD TURNED L AND NOT R. I IMMEDIATELY USED TCS TO TURN BACK TO THE R, AT THE SAME TIME, DEP CTL QUESTIONED US AND WE INFORMED THEM THAT WE WERE CURRENTLY TURNING BACK. THE CTLR STOPPED US ON OUR HDG OF 080 DEGS, WORKED ON A NEW HDG AND TURNED US TO THE L FOR ADDITIONAL VECTORS. DURING THE INITIAL CLB, WE ENCOUNTERED WAKE TURB FROM THE B757 THAT DEPARTED PRIOR TO US. THE B757 WAS IN A R TURN AND I WAS THINKING WE NEEDED A L TURN TO STAY CLR OF THEIR WAKE. I WAS SO FOCUSED ON AVOIDING THE WAKE TURB I ACCIDENTALLY TURNED L. IN THE FUTURE, I NEED TO STAY FOCUSED ON FLYING THE ACFT AND NOT GET TUNNEL VISION ON ONE ASPECT OF THE FLT.

Synopsis

AN EMB170 ATTEMPTING TO AVOID A B757 WAKE TURBULENCE DEVIATED FROM THE TRACON ASSIGNED HDG DEP BOS RWY 9.

Time / Day

Date : 200712 Local Time Of Day : 0601 To 1200

Place

Locale Reference.Airport : LAS.Airport State Reference : NV Altitude.AGL.Single Value : 300

Environment

Flight Conditions : VMC Light : Daylight

Aircraft : 1

Controlling Facilities.Tower : LAS.Tower Operator.General Aviation : Corporate Make Model Name : Challenger CL600 Operating Under FAR Part : Part 91 Flight Phase.Climbout : Initial Route In Use.Departure.SID : STAAV

Aircraft : 2

Controlling Facilities.Tower : LAS.Tower Operator.Common Carrier : Air Carrier Make Model Name : B737-800 Operating Under FAR Part : Part 121 Flight Phase.Climbout : Initial

Person : 1

Affiliation.Company : Corporate Function.Flight Crew : Captain Function.Oversight : PIC Qualification.Pilot : ATP Qualification.Pilot : CFI Qualification.Pilot : Multi Engine Experience.Flight Time.Last 90 Days : 93 Experience.Flight Time.Total : 19000 ASRS Report : 768089

Person : 2

Affiliation.Company : Corporate Function.Flight Crew : First Officer Qualification.Pilot : Instrument Qualification.Pilot : Multi Engine Qualification.Pilot : Private Experience.Flight Time.Last 90 Days : 41 Experience.Flight Time.Total : 4915 Experience.Flight Time.Type : 720 ASRS Report : 768090

Events

Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Non Adherence : Clearance Anomaly.Non Adherence : Published Procedure Anomaly.Other Spatial Deviation Independent Detector.Other.Flight CrewA : 1 Resolutory Action.Flight Crew : Exited Adverse Environment Resolutory Action.Flight Crew : Took Evasive Action

Assessments

Problem Areas : ATC Human Performance Problem Areas : Airspace Structure Problem Areas : Environmental Factor

Narrative

DEPARTED LAS RWY 25R AFTER A B737-800 ON THE STAAV3 DEP. AT APPROX 300 TO 400 FT ABOVE GND ENCOUNTER WAKE TURB. THE ENCOUNTER LASTED 30 TO 45 SECONDS AND THREE DIFFERENT TIMES. THE ACFT WAS ROCKED GREATER THAN 30 DEGS OF BANK. TURNED OFF THE DEP RTE, CLBED AND ACCELERATED TO CLR THE PATH BEHIND THE B737. THIS WAS THE WORST WAKE TURB I HAVE EVER ENCOUNTERED. PERCEPTIONS OF THE CREW: CONTINUED FLT BEHIND THE ACFT WOULD COMPROMISE THE SAFETY OF THE ACFT. DECISIONS OF THE CREW FOR THE SAFETY OF THE ACFT: DEPART FROM THE DEP RTE TO GET OUT OF THE WAKE TURB. CONTRIBUTING FACTORS: 1) TOWER CLRED US FOR TAKEOFF BEFORE THE ACFT IN FRONT OF US HAD LIFTED OFF THE GND. 2) AS A PLT DID NOT WAIT AS LONG AS WE SHOULD HAVE BEFORE STARTING OUR TAKEOFF. 3) PRESSURE FROM LAX LCL CTLR TO KEEP TFC MOVING AS FAST AS POSSIBLE. LESSONS LEARNED: 1) THE NEWER MODEL 737'S PRODUCE GREATER WAKE TURB THAN PREVIOUSLY THOUGHT. 2) DO NOT LET ATC'S PRESSURE YOU TO MOVE TFC LEADING US INTO AN UNSAFE POSITION.

Synopsis

AFTER TKOF A CL60 ENCOUNTERED WAKE TURB BEHIND A B737-800 THAT WAS MORE SEVERE THAN BEHIND MOST B737'S. INADEQUATE TFC SEPARATION PROVIDED BY ATC.

Time / Day

Date : 200712 Local Time Of Day : 1801 To 2400

Place

Locale Reference.Airport : MDW.Airport State Reference : IL Altitude.MSL.Single Value : 24000

Environment

Flight Conditions : VMC Light : Night

Aircraft : 1

Controlling Facilities.ARTCC : ZAU.ARTCC Operator.Common Carrier : Air Carrier Make Model Name : B737-700 Operating Under FAR Part : Part 121 Flight Phase.Climbout : Intermediate Altitude Route In Use.Departure : On Vectors

Aircraft : 2

Controlling Facilities.ARTCC : ZAU.ARTCC Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Component : 1

Aircraft Component : MCP

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : Captain Function.Oversight : PIC Experience.Flight Time.Last 90 Days : 213 Experience.Flight Time.Type : 213 ASRS Report : 767601

Person: 2

Affiliation.Company : Air Carrier Function.Flight Crew : First Officer Experience.Flight Time.Last 90 Days : 195 Experience.Flight Time.Type : 2000 ASRS Report : 767621

Person: 3

Affiliation.Government : FAA Function.Controller : Radar
Events

Anomaly.Conflict : Airborne Less Severe Anomaly.Inflight Encounter : Wake Turbulence Anomaly.Non Adherence : Clearance Anomaly.Non Adherence : Required Legal Separation Anomaly.Other Spatial Deviation Independent Detector.Other.ControllerA : 3 Resolutory Action.Controller : Issued Alert Resolutory Action.Controller : Issued New Clearance

Assessments

Problem Areas : Flight Crew Human Performance Problem Areas : Passenger Human Performance

Narrative

WE WERE BEING VECTORED DURING OUR DEP CLB AND HAD BEEN ASSIGNED HEADING 325 DEGS. THE PF HAD THE ACFT IN HDG SEL AND VERT SPD MODES. IN THE TURN, PASSING THROUGH APPROX 300 DEGS, WE ENCOUNTERED MODERATE WAKE TURBULENCE FROM A PRECEDING ACFT. WE DID NOT RECOGNIZE AT THE TIME THAT THE FLT DIRECTOR ROLL MODE CHANGED TO CWS FROM HDG SEL AFTER ENCOUNTERING THE WAKE. IMMEDIATELY AFTER THE WAKE TURBULENCE, THE A FLIGHT ATTENDANT CALLED THE CABIN TO SAY THEY WERE HAVING PROBLEMS WITH PAX IGNORING THE SEATBELT SIGN, WHICH WAS ILLUMINATED. THE PF WENT ON THE PA TO BRIEF THE PAX TO SIT DOWN IMMEDIATELY, BECAUSE WE DID NOT KNOW IF WE WOULD ENCOUNTER MORE WAKE TURBULENCE. NEITHER OF US RECOGNIZED THAT THE ACFT WENT PAST THE ASSIGNED HEADING IN CWS MODE UNTIL ATC ISSUED A CORRECTIVE HEADING AND ADVISED 'NO DELAY' ON OUR CLB THROUGH FL260 FOR TFC. WE COMPLIED WITH ATC INSTRUCTIONS AND WERE CLRED BACK ON COURSE BY ATC AFTER WE COMPLIED WITH THEIR CORRECTION HEADING. TOTAL COURSE DEV WAS ABOUT 70 DEGS. NO TCAS TA'S OR RA'S WERE ISSUED. WHILE CLBING OUT IN ADVERSE WX, THE FLT ATTENDANT CALLED THE FLT DECK TO RPT PEOPLE WOULD NOT REMAIN SEATED. AS THE PF, I TOLD THE PM THAT I WAS 'GOING TO BE OFF' TO ADDRESS THE PAX ABOUT COMPLYING WITH FLT ATTENDANT DIRECTIONS. I USED THE 'CAPT'S AUTHORITY' TO DEVIATE FROM FOM PROCS OF PF MAKING A PA. I SHOULD HAVE CLEARLY STATED, 'YOU HAVE THE ACFT.' WHILE MAKING MY PA, I FAILED TO MONITOR THE PROGRESS OF THE ACFT HEADING CHANGE. I STILL BELIEVE IT IS PROPER FOR THE CAPT TO MAKE PA'S AS THE PM. WHEN IT IS TIME CRITICAL FOR SAFETY. BUT WHEN THE PF MAKES A NECESSARY PA TO THE CABIN, HE SHOULD 'CLEARLY STATE' TO THE PM HE IS NOW THE PF INSTEAD OF STATING, 'I'M GOING TO BE OFF.' HAD I DONE THIS, THIS HEADING DEV WOULD PROBABLY NOT HAVE OCCURRED. CLEAR, CONCISE COMMUNICATION WOULD HAVE PREVENTED THIS EVENT. SUPPLEMENTAL INFO FROM ACN 767621: ALSO, WHEN THE PF STARTED THE PA, THE PM SHOULD HAVE SUSPENDED HIS WORK IN THE LOGBOOK TO CONCENTRATE ON MONITORING THE ACFT, WHICH WOULD HAVE ALLOWED HIM TO DETECT THE ERROR.

Synopsis

B737-700 SUFFERS TRACK DEV WHEN THE PF DIVERTS HIS ATTENTION TO COMPLETE A PAX PA ANNOUNCEMENT WITH THE ACFT IN A TURN. PNF ATTENTION DIVERTED TO LOG BOOK ENTRIES.

ACN: 765951

Time / Day

Date : 200712 Local Time Of Day : 0601 To 1200

Place

Locale Reference.Airport : PHX.Airport State Reference : AZ Altitude.MSL.Single Value : 4700

Environment

Flight Conditions : VMC Light : Daylight

Aircraft : 1

Controlling Facilities.TRACON : P50.TRACON Operator.Common Carrier : Air Carrier Make Model Name : A320 Operating Under FAR Part : Part 121 Navigation In Use.Other : FMS or FMC Flight Phase.Climbout : Initial Route In Use.Departure.SID : Silow

Aircraft : 2

Controlling Facilities.TRACON : P50.TRACON Operator.Common Carrier : Air Carrier Make Model Name : A320 Operating Under FAR Part : Part 121 Navigation In Use.Other : FMS or FMC Flight Phase.Ground : Takeoff Roll Route In Use.Departure.SID : Silow

Person: 1

Affiliation.Company : Air Carrier Function.Flight Crew : First Officer Qualification.Pilot : ATP Experience.Flight Time.Last 90 Days : 150 Experience.Flight Time.Total : 10500 Experience.Flight Time.Type : 1200 ASRS Report : 765951

Events

Anomaly.Inflight Encounter : Wake Turbulence Independent Detector.Other.Flight CrewA : 1 Resolutory Action.Flight Crew : Exited Adverse Environment Resolutory Action.Flight Crew : Took Precautionary Avoidance Action

Assessments

Problem Areas : Weather

Narrative

ON THE SILOW1 DEP OFF OF PHX RWY 7L, OUR A320 ENCOUNTERED THE WAKE(S) OF A LEADING A320 ON THE SAME DEP. WE WERE CLRED FOR TKOF FROM 'POSITION AND HOLD' JUST AS THE LEADING A320 ROTATED. THE WINDS WERE RPTED 010 AT 7 KNOTS. AFTER TAKEOFF, WE NORMALLY ACCELERATE TO 250 AT 3000 FT AGL. AFTER FLAP RETRACTION/ACCELERATION, WE DISCUSSED ADDITIONAL WAKE AVOIDANCE AND, AS WE WERE RESTR ON THE SID, WE ELECTED TO CONTINUE TO CLB AT 'GREEN DOT' (BEST CLB) DUE TO WAKE CONCERNS AND TO INCREASE THE DISTANCE BETWEEN US AND THE LEAD A320 (IT WAS JUST OVER THE 2.5 NM RING ON THE NAV DISPLAY BASED ON TCAS RANGING -- MAYBE 3 NM, PROBABLY LESS AT ABOUT 2000 FT MSL). DURING THIS PART OF THE CLB, I NOTED THE WINDS ALOFT WERE 040/4. THE CAPT WAS HAND FLYING SLIGHTLY LEFT (UPWIND) OF THE FMGC COMPUTED LNAV TRACK (SLIGHT RIGHT ROLL BAR COMMAND ON MY PFD). THIS WAS ALL BEFORE THE ENCOUNTER. AT ABOUT 4500 FT, WE GOT THE 'NIBBLES' AND I SAID, 'HERE IT COMES, THE WIND HAS SHIFTED TO THE RIGHT.' THEN, AFTER 10 SECONDS, WE BANKED L-R-L (5-10 DEG). THE CAPT WAS COUNTERING THE UNCOMMANDED ROLLS WITH SIDE STICK INPUTS WHICH HE LATER SAID WERE ABOUT 1/2 SIDE STICK TO R-L-R -- OPPOSITE TO THE WAKE INDUCED ROLLS. (AB SIDE STICKS DO NOT MOVE TOGETHER, SO PNF DOES NOT GET ANY FEEDBACK ON THE INPUTS OF THE PF, AND NO ONE GETS ANY FEEDBACK IF AP IS ON.) WE WERE OUT OF THE WAKE IN ABOUT 2-4 SECONDS AND THE CAPT NOW FLEW RIGHT OF THE SID (IT SAYS HEADING 075 DEGS UNTIL 4 DME) AT ABOUT 070 DEGS (UPWIND). I NOTED THE WIND WAS NOW 180/15 AT 6000 FT. AT THE ENCOUNTER, WE WERE AT ABOUT 4 NM IN TRAIL BASED ON TCAS RANGING. DEP GAVE US A LEFT TURN TO THE NORTH AND THEN GAVE THE LEAD A320 A LEFT TURN TO THE NE. OUR TRACKS DIVERGED. I RPTED THE ENCOUNTER TO ATC WHEN HE HANDED US OFF TO CENTER -- MAYBE 5 MINUTES AFTER THE EVENT. I DID TELL HIM THAT IT WAS AT 3.7 DME AND AT 4800 FT. THIS IS THE MY SECOND DEP EVER FROM PHX AND, SURPRISINGLY, I AM 2 FOR 2 HAVING WAKE ENCOUNTERS THERE. BOTH TIMES, THE SEPARATION WAS LEGAL AT THE TIME OF THE ENCOUNTER. I HESITATE TO SAY IT WAS SAFE. CERTAINLY, THE OUTCOME WAS NOT SEVERE FOR US (WOULD AN RJ HAVE HAD A SIMILAR ENCOUNTER), BUT THE 'EVENTS' SHOULD NOT HAVE HAPPENED AT THIS FREQUENCY.

Synopsis

A320 FLT CREW ENCOUNTERS WAKE TURB FROM PRECEDING A320 AT 4700 FT ON THE SILOW1 DEP PHX.

ACN: 765382

Time / Day

Date : 200712 Local Time Of Day : 1201 To 1800

Place

Locale Reference.Airport : PHX.Airport State Reference : AZ Altitude.MSL.Single Value : 1240

Environment

Flight Conditions : VMC Light : Daylight

Aircraft : 1

Controlling Facilities.Tower : PHX.Tower Operator.Common Carrier : Air Carrier Make Model Name : Regional Jet CL65, Undifferentiated or Other Model Operating Under FAR Part : Part 121 Flight Phase.Climbout : Takeoff

Aircraft : 2

Controlling Facilities.Tower : PHX.Tower Operator.Common Carrier : Air Carrier Make Model Name : A320 Operating Under FAR Part : Part 121 Flight Phase.Climbout : Initial

Person: 1

Function.Flight Crew : First Officer Qualification.Pilot : CFI Qualification.Pilot : Commercial Qualification.Pilot : Multi Engine Experience.Flight Time.Last 90 Days : 270 Experience.Flight Time.Total : 4000 Experience.Flight Time.Type : 2500 ASRS Report : 765382

Events

Anomaly.Inflight Encounter : Wake Turbulence Independent Detector.Aircraft Equipment.Other Aircraft Equipment : Stick Shaker Independent Detector.Other.Flight CrewA : 1 Resolutory Action.None Taken : Insufficient Time

Assessments

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

Narrative

GIVEN TAXI INTO POSITION HOLD INSTRUCTIONS FOR RWY 7L AND ASKED TO RPT PRECEDING TFC, AN A320 IN SIGHT. JUST PRIOR TO THE ACFT AHEAD ROTATING WE WERE CLRED FOR TAKEOFF. A STANDING TKOF WAS PERFORMED TO ALLOW FOR SLIGHTLY ADDITIONAL SPACING. ROTATION POINT OF THE A320 WAS NOTED AS FAIRLY DISTANT DOWN THE RWY. OUR ACFT ACCELERATED SLUGGISHLY DUE TO THE HIGH WT (1300 LBS BELOW MGTOW) AND THE LOW THRUST SETTING (85.4%) N1 FLX TKOF. SHORTLY AFTER ROTATION AT V2 PLUS 12 KTS WE ENCOUNTERED WAKE TURBULENCE FROM THE PRECEDING DEP THAT BRIEFLY ACTIVATED THE STICK SHAKER. AN OFFSET WAS MADE TO THE RIGHT OF COURSE AND NO OTHER SUBSTANTIAL TURBULENCE WAS NOTED THE REMAINDER OF THE DEP. THE INCIDENT WAS FAIRLY COMMON FOR EASTBOUND PHX DEPS OTHER THAN THE ACTIVATION OF THE STICK SHAKER. IT ACTUALLY RARELY OCCURS THAT YOU ENCOUNTER ANY WAKE TURBULENCE, AND IN THIS INSTANCE IT WAS ONLY THE ONE JOLT THAT ACTIVATED THE STICK SHAKER. CONTRIBUTING FACTORS INCLUDE: FAILURE FOR FLT CREW TO ALLOW ADDITIONAL SPACING BETWEEN DEPS, TOWER CTLR'S RUSH TO GET DEPS OUT DURING A DEP BANK, FAILURE TO RECOGNIZE FLT PATH OF THE OTHER ACFT AND FAILURE TO TAKE CORRECTIVE COURSE ACTION PRIOR TO ENTERING THE OTHER ACFT'S WAKE.

Synopsis

CL600 FLT CREW RPTS WAKE TURB ENCOUNTER WITH PRECEDING A320 DEPARTING RWY 7L AT PHX. STICK SHAKER ACTIVATES BRIEFLY.