Smoke emergency and evacuation slide failure, Airbus A300B4-605R, April 10, 2003

Micro-summary: This Airbus A300F4-605R experienced a smoke emergency during climbout; on landing, the evacuation slides failed to inflate.

Event Date: 2003-04-10 at 1350 PDT

Investigative Body: National Transportation Safety Board (NTSB), USA

Investigative Body's Web Site: http://www.ntsb.gov/

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National Transportation Safety Board	NTSB	ID: LAX03IA13	7	Aircraft Regist	Aircraft Registration Number: N676FE				
FACTUAL REPORT	Occur	rence Date: 04/1	0/2003	Most Critical Ir	Most Critical Injury: None				
AYIATION	rence Type: Incid	lent	Investigated B	Investigated By: NTSB					
Location/Time									
Nearest City/Place	State	Zip Code	Local Time	Time Zone					
Oakland	CA	94614	1350	PDT					
Airport Proximity: On Airport	n Landing Facility	:	Direction Fro	Direction From Airport:					
Aircraft Information Summary									
Aircraft Manufacturer	Model/Serie	es			Type of Aircraft				
Airbus Industrie	A300F4-6	05R		Airplane					
Sightseeing Flight: No	Air Medical T	Air Medical Transport Flight: No							

Narrative

Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:

On April 10, 2003, at 1350 Pacific daylight time, an Airbus A300F4-605R, N676FE, declared an emergency due to smoke in the cockpit during the takeoff climb out from the Metropolitan Oakland International Airport (OAK), Oakland, California. Federal Express (FedEx) operated the nonscheduled domestic cargo airplane under the provisions of 14 CFR Part 121. The airplane was not damaged. The two airline transport certificated pilots were not injured. Visual meteorological conditions prevailed for the cross-country flight, and an instrument flight rules (IFR) flight plan had been filed. The flight departed Oakland at 1330, with a scheduled destination of Denver International Airport (DEN), Denver, Colorado.

In the captain's written statement he indicated that during climb out he and the first officer smelled an acrid smoke followed immediately by the illumination of the MAIN DECK CARGO FIRE light, as well as the audio tone (bell). They conducted the emergency procedures, declared an emergency, and turned back to land at Oakland. While on the downwind leg, the MAIN DECK CARGO FIRE light went out. However, on final, the MID 2 LOOPS A and B illuminated.

The captain stated that after landing, the flight crew accomplished the GROUND EMERGENCY EVACUATION procedures. He indicated that the 1R door slide did not inflate automatically or manually.

In the first officer's written statement he indicated that during the evacuation he opened the 1R door. The door opened and the evacuation slide partially deployed; however, it did not inflate. The captain made several unsuccessful attempts to inflate the slide with the manual inflation handle. The first officer further stated that he and maintenance personnel checked the door during the preflight at Oakland.

FedEx attributed the smoke to oil and another fluid, possibly glycol, contaminating the air-conditioning packs. Maintenance personnel found the number 1 and 2 water coalescer separator bags covered in a dark fluid. They replaced the APU load compressor, along with the two water coalescer separator bags. They completed a ground run of the airplane with no discrepancies noted.

According to a maintenance person who arrived with a pay mover to move the airplane back to the FedEx facility, when he arrived on-scene he saw that the emergency slide had been deployed and was hanging against the fuselage from its girt bar, and was deflated. He went inside the airplane and a crewmember pointed, with a flashlight, where smoke had been. He observed a "white smoke low to the floor three quarters down the fuselage, smoke was minimal and motionless, [he] did not observe any smell of smoke."

FedEx employees took several pictures of the incident slide after it had been removed from the airplane and placed into a maintenance vehicle. The pictures indicated that the slide's inflation bottle was still fully pressurized and that internal components from the inflation bottle's regulator had been removed. A Safety Board investigator interviewed numerous maintenance employees

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who had contact with the slide. Two of the employees recalled seeing the transport-locking pin (with a red streamer) with the incident slide on the back of the maintenance truck.

The incident slide was torn down at the manufacturer's facility, and they noted no discrepancies that would have prevented the slide's inflation during the evacuation. According to the manufacturer, damage to the slide's girt in the area of the manual inflation handle was consistent with the transport locking pin being installed in the inflation bottle's regulator at the time of the slide's deployment.

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AVIATION	ırrence Ty	rence Type: Incident												
Landing Facility/Approach In	formation													
Airport Name			Airport I	D:	Airport Elevati	ion	Run	way Used	sed Runway Length			Runv	vay Width	
Metropolitian Oakland INTL					6 Ft.	MSL	. 29		1000	00 1		150		
Runway Surface Type: Asphalt					'		•		'					
Runway Surface Condition: Dry														
Type Instrument Approach: Visual														
VFR Approach/Landing: Precautionary Landing														
Aircraft Information														
Aircraft Manufacturer Airbus Industrie			1	odel/Se 300F4	eries 1-605R					Serial 790	Numbe	Number		
Airworthiness Certificate(s): Transport														
Landing Gear Type: Retractable - Tricycle														
Homebuilt Aircraft? No	Number of Seats: (6	Cer	Certified Max Gross Wt.				375880 LBS Numbe			r of Engines: 2		: 2	
Engine Type: Turbo Fan					Engine Manufacturer: Model/Series: General Electric CF6-80C2A5F							Rated Power: 61000 LBS		
- Aircraft Inspection Information														
Type of Last Inspection D.				Date of Last Inspection Time Sir				nce Last Insp	Airframe Total Time					
Continuous Airworthiness			04/200	04/2003 7267 Hd					ours 5 Hours					
- Emergency Locator Transmitter (ELT) Information													
ELT Installed? No	ELT Operate	ed? No)			EL1	Aided i	n Locating A	ccident S	Site? No)			
Owner/Operator Information														
Registered Aircraft Owner			Stre	eet Ado	dress 2 Internat	tiona	l PL. FL	_ 4						
State Street Bank and Trust C	o. of CT TSTE		City								Stat MA	te	Zip Code 02110	
			Stree	Boston MA 02110 Street Address										
Operator of Aircraft														
Federal Express Corporation	City Memphis							Stat	te	Zip Code 37501				
Operator Does Business As: Operator Designator Code: F									ode: FD	EA				
- Type of U.S. Certificate(s) Held:														
Air Carrier Operating Certificate(s)	: Flag Carrier/Dom	nestic												
Operating Certificate: Operator Certificate:														
Regulation Flight Conducted Under: Part 121: Air Carrier														
Type of Flight Operation Conducted: Non-scheduled; Domestic; Cargo														
]	FACT	UAL RE	EPOR'	T - AVIATIO	ON							Page 2	

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AVIATION	0001188000				_ I							
· 1 V -	e Type: Ind	cident										
First Pilot Information												
Name			City			Sta	ate	Date of Birth	Age			
On File									56			
Sex: M Seat Occupied: Left Princ	ipal Profess	ın Pilot	lot Certificate Number: On File									
Certificate(s): Airline Transport												
Airplane Rating(s): Multi-engine Land												
Rotorcraft/Glider/LTA: None												
Instrument Rating(s): Airplane												
Instructor Rating(s): None												
Type Rating/Endorsement for Accident/Incident Aircraft?	? Yes			Current E	iennial Flig	ht Revie	w? 09/2	2002				
Medical Cert.: Class 1 Medical Cert. Status:	Valid Med	dicalno w	aivers/lir	n.	Date of	of Last M	1edical E	xam: 12/2002				
<u>, </u>												
- Flight Time Matrix All A/C This Make and Model S	Airplane Single Engine	Airplane Mult-Engine	Night	Actual	Instrument Simul	ated	Rotorcraft	Glider	Lighter Than Air			
Total Time 3346 1693		3346										
Pilot In Command(PIC) 3288 1663		3288										
Instructor												
Last 90 Days 107 107		107	_									
Last 30 Days 36 36		36										
Last 24 Hours 3 3		3	<u> </u>									
Seatbelt Used? Yes Shoulder Harness L	Jsed? Yes		Т	Toxicology Performed? No Second Pilot? Yes								
Flight Plan/Itinerary												
Type of Flight Plan Filed: IFR												
Departure Point			;	State	Airport Ider	rport Identifier		rture Time	Time Zone			
Same as Accident/Incident Location					DAK		1330		PDT			
Destination			;	State	Airport Ider	ntifier		,				
Denver	(o	DEN	ΞN								
Type of Clearance: IFR												
Type of Airspace: Class C												
Weather Information												
Source of Briefing: Company												
Method of Briefing: Telephone												
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	ETYBOR		Occurrenc	e Type:	incident								
Weather	Weather Information												
WOF ID	Observation Time	Time Zone	WOF Elevati	on	WOF Distance From Accident Site Direction From Accident					n Accident S	Site		
OAK	1253	PDT	6 Ft.	. MSL	0 NM 0 Deg.					g. Mag.			
Sky/Lowes	st Cloud Condition: Few				. 2	2800 Ft. A	GL	Condition o	n of Light: Day				
Lowest Ce	eiling: Overcast	5500 Ft.	AGL	Visibi	lity:	10	SM	Altii	meter:	30.06	"Hg		
Temperatu	ure: 17 °C	9 °C	Wind	Wind Direction: 270 Density Altitude:									
Wind Spee	ed: 15	Gusts:		Weath	Weather Condtions at Accident Site: Visual Conditions								
Visibility (F	RVR): Ft.	Visibility (R	VV)	SM	Intensity	of Precipi	tation:						
Restriction	ns to Visibility: None												
Type of Precipitation: None													
Accident Information													
Aircraft Da	mage: None		Aircraft Fire	e: None)			Aircraft Exp	losio	n None			
Classificati	ion: U.S. Registered/U	.S. Soil											
- Injury Su	mmary Matrix	Fatal Se	erious Mino	or	None	TOTAL							
First Pi	ilot				1	,	ī						
Second	d Pilot				1	,	ī						
Studen	nt Pilot			\top			1						
Flight I	nstructor			\neg			1						
Check	Pilot			\neg			1						
Flight E	Engineer						1						
Cabin A	Attendants			\neg			1						
Other C	Crew						1						
Passer	ngers			\neg			1						
- TOTAL A	ABOARD -			\top	2		2						
Other C	Ground						1						
- GRAND	D TOTAL -			$\neg \vdash$	2		2						

National Transportation Safety Board

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Occurrence Type: Incident

Investigator-In-Charge (IIC)

Tealeye C. Cornejo

Additional Persons Participating in This Accident/Incident Investigation:

Tony Blas Aviation Safety Inspector Federal Aviation Administration 1420 Harbor Bay Parkway, Suite 280 Alameda, CA 94502