Collision with Double-Crested Cormorants, Boeing 767, October 19, 2002

Micro-summary: This Boeing 767 collided with birds right after takeoff.

Event Date: 2002-10-19 at 850 EDT

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

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

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1. Accident reports can be and sometimes are revised. Be sure to consult the investigative agency for the latest version before basing anything significant on content (e.g., thesis, research, etc).

2. Readers are advised that each report is a glimpse of events at specific points in time. While broad themes permeate the causal events leading up to crashes, and we can learn from those, the specific regulatory and technological environments can and do change. Your company's flight operations manual is the final authority as to the safe operation of your aircraft!

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National Transportation Safety Board		NTSB	ID: IAD03IA007	,	Aircraft Registration Number: N607UA					
FACTUAL REPORT	ence Date: 10/1	9/2002	Injury: None							
AVIATION		Occurr	ence Type: Incid	ent	Investigated B	Investigated By: NTSB				
Location/Time										
Nearest City/Place	State		Zip Code							
BOSTON	MA		01902	0850						
Airport Proximity: On Airport Distance From Landing Facility: Direction From Airport:										
Aircraft Information Summary										
Aircraft Manufacturer			Model/Serie	s			Type of Aircraft			
Boeing			767-222				Airplane			
Sightseeing Flight: No			Air Medical T	ransport Flight: N	0					
Narrative										
United Airlines flight 185, Edward Lawrence Logan Intern minor damage. The captain, fir The flight was operating on	United Airlines flight 185, sustained minor damage when it struck birds on takeoff from General Edward Lawrence Logan International Airport (BOS), Boston, Massachusetts. The airplane sustained minor damage. The captain, first officer, 7 flight attendants, and 119 passengers were not injured. The flight was operating on an instrument flight rules flight plan to San Francisco International Airport (SFO), San Francisco, California. The scheduled passenger flight was conducted under 14									
The airplane departed runway 22R, and struck the birds during the initial climbout. One double-crested cormorant was ingested by the #2 engine, another struck the right wing, and a third bird was found seriously injured on the runway. Even though the #2 engine was still producing power, the captain elected to shut it down as a precautionary measure. The airplane returned to Logan Airport and performed an overweight landing on runway 33L. The airplane was then towed to the gate, and the passengers deplaned normally.										
Examination of the airplane revealed damage to the right inboard leading edge slat, landing light, and the #2 engine bypass stator vanes. Some of the vanes exited the forward section of the cowling at the 9 o'clock and 12 o'clock position.										
The Massachusetts Port Authority (Massport), the public authority that managed Logan Airport, had a Wildlife Hazard Management Plan in place at the airport. The plan included regular, daily inspections of the runways and airport environment. On the morning of the incident, after examination of the airport perimeter, two Massport wildlife technicians reported "heavy bird activity" to the control tower, which was standard operating procedure. The Automated Terminal Information System (ATIS) was then updated to reflect this hazard, and was still active at the time of the incident.										
Prior to flight 185's take-off, one of the wildlife plan supervisors reported a flock of birds to the control tower on 128.8, the tower frequency for runway 22. The supervisor reported the birds were flying about 200 feet over the approach end of runway 15, and were moving southbound. A tower controller responded that they had the birds in sight.										
Shortly thereafter, a Delta Airlines Boeing 737 departed runway 22 without incident, followed by United Airlines flight 185.										
A review of air traffic control communications revealed that no specific warning was given by the air traffic controllers to the Delta or United Airlines crews, due to the fact that the birds were not in their flight path. It was believed that the flock then split into two or three separate flocks after the Delta airplane took off, with one of the flocks turning east and directly into the path of the departing United airplane.										
FACTUAL REPORT - AVIATION Page 1										

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AVIATION	Occurrence Type: Incident	
Narrative (Continued)		

When asked if something could have been done to avoid this incident, a Massport wildlife representative answered "no." Moreover, no changes were made to the Massport Wildlife Hazard Management Plan.

Weather at the time included winds from 200 degrees at 9 knots, visibility 10 statute miles, broken clouds at 8,500 feet, overcast clouds 12,000 feet, temperature 50 degrees F, and dewpoint 41 degrees F.

National Transportation Safety Board	I	NTSB ID: IAD03IA007										
FACTUAL REPORT	Γ	Occurrence Date: 10/19/2002										
AVIATION ETYBON	-	Occurrence Type: Incident										
	Landing Facility/Approach Information											
Airport Name	Airport ID: Airport Elevation Runway Used Runway Leng							n Rui	nway Width			
LOGAN INTERNATIONAL AIRPORT B				20 Ft	. MSL	33L	-	1008	1	0		
Runway Surface Type: Asphalt												
Runway Surface Condition: Dry												
Type Instrument Approach: NONE												
VFR Approach/Landing: Precautionary	Landing											
Aircraft Information			1									
Aircraft Manufacturer Boeing			Model/ 767-2						Serial N 21868	Number 8		
Airworthiness Certificate(s): Transport	Airworthiness Certificate(s): Transport											
Landing Gear Type: Retractable - Tric	ycle											
Homebuilt Aircraft? No Num	Homebuilt Aircraft? No Number of Seats:					Certified Max Gross Wt.					es: 2	
Engine Type: Turbo Fan			Engine Manufacturer:Model/Series:Pratt & WhitneyJT9-74RD							Rated Power:		
- Aircraft Inspection Information												
Type of Last Inspection D				Date of Last Inspection Time Since Last Inspection Hours						Airframe Total Time Hours		
- Emergency Locator Transmitter (ELT) I	Information	1										
ELT Installed? Yes	ELT Operated	d? No			ELT A	Aided ir	n Locating Ac	cident S	Site? No			
Owner/Operator Information												
Registered Aircraft Owner			Street A	ddress								
UNITED AIR LINES INC		City St Chicago IL							State IL	Zip Code		
On and the stations to			Street A						•			
Operator of Aircraft			Same as Reg'd Aircraft Owner City State							Zip Code		
Same as Reg'd Aircraft Owner												
Operator Does Business As: Operator Designator Code: UALA												
- Type of U.S. Certificate(s) Held:	Carrier/Dome	etic										
Air Carrier Operating Certificate(s): Flag Carrier/Domestic												
Operating Certificate: Large Aircraft Operator Operator Certificate:												
Regulation Flight Conducted Under: Part 121: Air Carrier												
Type of Flight Operation Conducted: Scheduled; Domestic; Passenger Only												
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F	FACTUAL REPORT Occurrence Date: 10/19/2					0/19/20	02							
	ΑΥΙΑΤΙ	26 ×			nce Type: Ir				-					
		plan i		Occurre	nce rype. II	loident								
L	First Pilot Information													
Name City							State Date of Birth							Age
Sex: Seat Occupied: Principal Profession: Certificate Number:														
Certificate(s):														
Airplane R	Airplane Rating(s):													
Rotorcraft/	Glider/LTA:													
Instrument	Rating(s):													
Instructor I														
instructor	(aung(s).													
Type Rating/Endorsement for Accident/Incident Aircraft? Current Biennial Flight Revie														
Medical Ce	ert.:	Medica	al Cert. S	tatus:					Date	of Las	st Medical	Exam:		
- Flight Tin	-light Time Matrix All A/C This Make Airplane Airplane Airplane Mult-Engine Mult-Engine Mult-Engine				N	Night Inst Actual		Instrument	rument Simulated		ft	Glider	Lighter Than Air	
Total Time	•													
Pilot In Co	mmand(PIC)													
Instructor														
Last 90 Da	ays													
Last 30 Da	ays													
Last 24 Ho	ours													
Seatbelt U	sed?	Shou	ılder Harr	ness Used?			Toxic	ology Pe	rformed?			Second	d Pilot? Ye	S
Flight Pla	an/Itinerary													
Type of Fli	ght Plan Filed: IF	R												
Departure	Point						State	e /	Airport Ide	entifier	Dep	arture	Time	Time Zone
BOSTON	l						MA BO		BOS		085	0850		EDT
Destination	n						State Ai		irport Identifier				I	
SAN FRANSISCO							CA		SFR					
Type of Clearance: IFR														
Type of Airspace: Class D														
Weather	Weather Information													
Source of Briefing:														
Unknown														
Method of Briefing: Unknown														
	Differing. UNKNO	WN												
				FACTUA	L REPORT	- AVI	ATIO	N						Page 3

National Transportation Safety Board			NTSB ID:	NTSB ID: IAD03IA007									
	ACTUAL REPOR		Occurrent	ce Date:	10/19/2	002		1					
AVIATION Occurrence Type: Incident						1							
Weather	Information												
WOF ID	Observation Time	Time Zone	WOF Elevat	ion	WOF Di	stance From	n Accie	dent Site		Direction From	n Accident Sit	e	
BOS	0854	EDT	20 Ft	. MSL				NM Deg. Mag					
	st Cloud Condition:					Ft. AG		Condition of	of Ligl T	nt: Day			
Lowest Ce	iling: Broken		8500 Ft.	AGL	Visibi	lity:	10	SM	SM Altimeter: 30.06 "H				
Temperatu	ire: 10 °C	Dew Point:	5 °C	Wind	Direction:	200			De	nsity Altitude:		Ft.	
Wind Spee	ed: 9	Gusts:		Weat	her Condt	ions at Accio	dent S	ite: Visual (Cond	itions			
Visibility (R	RVR): Ft	. Visibility (R	VV)	SM	Intensity	of Precipita	ation:						
Restriction	s to Visibility: None												
Type of Pre	ecipitation: None												
Accident	Information												
Aircraft Dar	mage: Minor		Aircraft Fir	e: None)			Aircraft Exp	olosio	n None			
Classificati	on: U.S. Registered/L	J.S. Soil											
- Injury Su	mmary Matrix	Fatal Se	erious Mino	or	None	TOTAL							
First Pi	lot				1	1							
Second	d Pilot				1	1							
Studen	t Pilot												
Flight li	nstructor												
Check	Pilot												
Flight E	Engineer												
Cabin A	Attendants				7	7							
Other C	Crew												
Passen	ngers				119	119							
- TOTAL A	ABOARD -				128	128							
Other G	Ground												
- GRAND	D TOTAL -				128	128							
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FACTUAL REPORT	Occurrence Date: 10/19/2002								
AVIATION	Occurrence Type: Incident								
Administrative Information									
Investigator-In-Charge (IIC) LEAH D. YEAGER									
Additional Persons Participating in This Accident/Incid	ent Investigation:								
JOHN TAMBOURI BOSTON FSFO BOSTON, MA									