

## Animal Strikes Dataset Details

This dataset is a copy of the FAA Wildlife Strike Database, containing “reported wildlife strikes since 1990.”

From Wikipedia:

“A **bird strike**—sometimes called **birdstrike**, **bird ingestion** (for an engine), **bird hit**, or **bird aircraft strike hazard (BASH)**—is a collision between an airborne animal (usually a bird or bat) and a manmade vehicle, especially an aircraft. The term is also used for bird deaths resulting from collisions with structures such as power lines, towers and wind turbines...”

Note that in this dataset, birdstrikes also include animals that are not birds.

Data Column Name	Meaning
AC_CLASS	Type of aircraft (see Aircraft Type tab below)
AC_MASS	1 = 2,250 kg or less: 2 = ,2251-5700 kg: 3 = 5,701-27,000 kg: 4 = 27,001-272,000 kg: 5 = above 272,000 kg
AIRPORT	Name of airport
AIRPORT_ID	International Civil Aviation Organization airport identifier for location of strike whether it was on or off airport
AMA	International Civil Aviation Organization code for Aircraft Make
AMO	International Civil Aviation Organization code for Aircraft Model
AOS	Time aircraft was out of service in hours. If unknown, it is blank.
ATYPE	Aircraft
BIRDS_SEEN	Number of birds/wildlife seen by pilot
BIRDS_STRUCK	Number of birds/wildlife struck
COMMENTS	As entered by database manager. Can include name of aircraft owner, types of reports received, updates, etc.
COST_OTHER	Estimated other costs, other than those in previous field in dollars (USD). May include loss of revenue, hotel expenses due to flight cancellation, costs of fuel dumped, etc.
COST_OTHER_INFL_ADJ	Other cost adjusted for inflation
COST_REPAIRS	Estimated cost of repairs or replacement in dollars (USD)
COST_REPAIRS_INFL_ADJ	Costs adjusted for inflation
DAM_ENG1	Damaged Engine 1
DAM_ENG2	Damaged Engine 2
DAM_ENG3	Damaged Engine 3
DAM_ENG4	Damaged Engine 4
DAM_FUSE	Damaged Fuselage
DAM_LG	Damaged Landing Gear
DAM_LGHTS	Damaged Lights
DAM_NOSE	Damaged nose
DAM_OTHER	Damaged Other than parts shown above

DAM_PROP	Damaged Propeller
DAM_RAD	Damaged radome
DAM_TAIL	Damaged Tail
DAM_WINDSHLD	Damaged windshield
DAM_WING_ROT	Damaged Wing or Rotor
DAMAGE	Degree of damage done to the aircraft. Blank= Unknown; M = minor; M? = uncertain level; S = substantial; D = Destroyed
DISTANCE	Miles from airport
EFFECT	Effect on flight
EFFECT_OTHER	Effect on flight other than those listed on the form
EMA	Engine Make Code (see Engine Codes tab below)
EMO	Engine Model Code (see Engine Codes tab below)
ENG_1_POS	Where engine # 1 is mounted on aircraft (see Engine Position tab below)
ENG_2_POS	Where engine # 2 is mounted on aircraft (see Engine Position tab below)
ENG_3_POS	Where engine # 3 is mounted on aircraft (see Engine Position tab below)
ENG_4_POS	Where engine # 4 is mounted on aircraft (see Engine Position tab below)
ENROUTE	If strike did not occur on approach, climb, landing roll, taxi or take-off, aircraft was enroute. This shows location.
FAAREGION	FAA Region where airport is located
FLT	Flight number
HEIGHT	Feet Above Ground Level
INCIDENT_DATE	Date strike occurred
INCIDENT_MONTH	Month strike occurred
INCIDENT_YEAR	Year strike occurred
INDEX NR	Individual record number
INDICATED_DAMAGE	Indicates whether or not aircraft was damaged
INGESTED	Engine ingested the bird/ animal
LOCATION	Various information about aircraft location if enroute or airport where strike evidence was found. Some locations show the two airports for the flight departure and arrival if pilot was unaware of the strike.
LUPDATE	Last time record was updated
NR_FATALITIES	Number of human fatalities
NR_INJURIES	Number of people injured
NUM_ENGS	Number of engines
OPERATOR	A three letter International Civil Aviation Organization code for aircraft operators. (BUS = business, PVT = private aircraft other

	than business, GOV = government aircraft, MIL - military aircraft.)
OPID	Airline operator code
OTHER_SPECIFY	What part was struck other than those listed above
PERSON	Only one selection allowed. For multiple reports, see field "Reported Title"
PHASE_OF_FLT	Phase of flight during which strike occurred
PRECIP	Precipitation
REG	Aircraft registration
REMAINS_COLLECTED	Indicates if bird or wildlife remains were found and collected
REMAINS_SENT	Indicates if remains were sent to the Smithsonian Institution for identification
REMARKS	Most of remarks are from the form but some are data entry notes and are usually in parentheses.
REPORTED_DATE	Date report was written
REPORTED_NAME	Name(s) of person(s) filing report
REPORTED_TITLE	Title(s) of person(s) filing report
RUNWAY	Runway
SIZE	Size of bird as reported by pilot is a relative scale. Entry should reflect the perceived size as opposed to a scientifically determined value. If more than one species was struck, larger bird is entered.
SKY	Type of cloud cover, if any
SOURCE	Type of report. Note: for multiple types of reports this will be indicated as Multiple. See "Comments" field for details
SPECIES	Common name for bird or other wildlife
SPECIES_ID	International Civil Aviation Organization code for type of bird or other wildlife
SPEED	Knots (indicated air speed)
STATE	State
STR_ENG1	Struck Engine 1
STR_ENG2	Struck Engine 2
STR_ENG3	Struck Engine 3
STR_ENG4	Struck Engine 4
STR_FUSE	Struck Fuselage
STR_LG	Struck Landing Gear
STR_LGHTS	Struck Lights
STR_NOSE	Struck nose
STR_OTHER	Struck Other than parts shown above
STR_PROP	Struck Propeller
STR_RAD	Struck radome
STR_TAIL	Struck Tail
STR_WINDSHLD	Struck windshield

STR_WING_ROT	Struck Wing or Rotor
TIME	Hour and minute in local time
TIME_OF_DAY	Light conditions
TRANSFER	Unused field at this time
TYPE_ENG	Type of power A = reciprocating engine (piston): B = Turbojet: C = Turboprop: D = Turbofan: E = None (glider): F = Turboshaft (helicopter): Y = Other
WARNED	Pilot warned of birds/wildlife

Aircraft Code	Aircraft Classification
A	Airplane
B	Helicopter
C	Glider
D	Balloon
F	Dirigible
I	Gyroplane
J	Ultralight
Y	Other
Z	Unknown

Damage (Civil)		
D	Destroyed	When the damage sustained makes it inadvisable to restore the aircraft to an airworthy condition.
M	Minor	When the aircraft can be rendered airworthy by simple repairs or replacements and an extensive inspection is not necessary.
M?	Uncertain	The aircraft was damaged, but details as to the extent of the damage are lacking.
N	None	
S	Substantial	When the aircraft incurs damage or structural failure which adversely affects the structure strength, performance or flight characteristics of the aircraft and which would normally require major repair or replacement of the affected component.

Damage (Military)	
Class A	Over \$2,000,000
Class B	\$500,000 - \$2,000,000
Class C	\$50,000 - Less than \$500,000
Class N / Class E	No damage or damage less than \$50,000

Engine Type
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A	Reciprocating
B	Turbojet
C	Turboprop
D	Turbofan
E	None (glider)
F	Turboshaft (helicopter)
Y	Other

### FAA Region Codes (for USA)



Engine Code	Location of Engine
19	Engine mounted below the wing
20	Engine mounted above the wing
21	Engine is an integral part of the wing root
22	Engine is nacelle-mounted on the wing (i.e. piston or turboprop)
23	Engine is mounted on the aft fuselage

International Civil Aviation Organization CODES FOR ENGINES BY MANUFACTURER AND MODEL			
Manufacturer Code	Model Code	Engine Manufacturer	Engine Model
01		ALLISON	
	01		250 FAMILY
	04		501 FAMILY
	07		GMA2100
	10		GMA3007
	13		V-1710
02		ALLIED SIGNAL (Honeywell)	
	01		LF 507
04		ALVIS	
	01		LEONIDES
07		AVCO LYCOMING	
	01		145 FAMILY
	04		233 FAMILY
	07		235 FAMILY
	08		290 FAMILY
	10		320 FAMILY
	13		340 FAMILY
	16		350 FAMILY
	19		360 FAMILY
	22		435 FAMILY
	25		480 FAMILY
	28		53 FAMILY
	31		540 FAMILY
	34		55 FAMILY
	37		580 FAMILY
	40		720 FAMILY
	43		ALF 502 SERIES
	44		LF507
	46		LTC 1B

	49		LTP FAMILY
	52		LTS FAMILY
	55		R 530
	58		R 680
08		BRISTOL	
	01		Orpheus 700 family
09		BMW/RR	
	03		710 SERIES
	06		715 SERIES
	12		720 SERIES
10		CFM INTERNATIONAL	
	01		CFM 56
11		CFE COMPANY	
	01		CFE 738
13		CONTINENTAL (TELEDYNE)	
	01		200 FAMILY
	02		185 FAMILY
	04		300 FAMILY
	07		346 FAMILY
	10		360 FAMILY
	13		470 FAMILY
	16		520 FAMILY
	19		526 FAMILY
	20		550 FAMILY
	22		670 FAMILY
	25		A 65 SERIES
	28		A 50 SERIES
	31		C 145 SERIES
	34		C 75/85 SERIES
	37		TIARA
16		CURTISS-WRIGHT	
	01		1820 FAMILY
	04		C14 FAMILY
	07		C18 FAMILY

	10		C9 FAMILY
	12		R 760 FAMILY
	13		R 1300 FAMILY
	16		R 2600 FAMILY
	19		R 3350 FAMILY
	22		R 975 FAMILY
19		GARRET AIRESEARCH	
	01		TFE 731 SERIES
	04		TPE 331 FAMILY
	07		TSE 36
	08		ATF 3 SERIES
22		GENERAL ELECTRIC	
	01		CF 700 SERIES
	04		CF34
	07		CF6 SERIES
	10		CJ 610 SERIES
	13		CJ 805 SERIES
	16		CT 58 SERIES
	19		CT 64 SERIES
	22		CT7 SERIES
	25		GE90 SERIES
	61		J-79 SERIES
	62		J-85 SERIES
23		INT'L AERO ENGINES	
	01		V2500
24		ISOTOV	
	01		TV 2 SERIES
	04		TV 3 SERIES
25		IVCHENKO	
	01		AI-20
	04		AI-24
	07		AI-25
27		KLIMOV	



	01		TV2-117
	04		TV3-117
	07		TV7-117
28		KUZNETSOV	
	01		NK8
	04		NK86
29		LOTAREV	
	01		D-18
	04		D-36
	07		D-136
	10		D-236
2A		MOTORLET	
	01		M-601
30		PORSCHE	
	01		930
31		PRATT & WHITNEY (CANADA)	
	01		JT15
	04		PT-6 FAMILY
	07		PT-6-3 (TWIN PACK)
	10		PW100 FAMILY
	13		PW200 FAMILY
	14		PW300 FAMILY
	19		PW400 FAMILY
	20		PW500 FAMILY
34		PRATT & WHITNEY (USA)	
	01		JT-3
	04		JT-4
	07		JT-6
	10		JT-8
	13		JT-9
	16		JT-12
	19		R 985
	22		R 1340
	25		R 1800

	28		R 1830
	31		R 2000
	34		R 2800
	37		R 4360
	40		PW 2000
	43		PW 3000
	46		PW 4000
	49		PW 5000
	50		PW 6000
36		PZL	
	01		AI-14 FAMILY
	04		ASZ-62R FAMILY
	07		F2 FAMILY
	10		F4 FAMILY
	13		F6 FAMILY
	16		GTD 350
	19		SO1/SO3 FAMILY
	22		TVD-10B
	25		TVD-10W
	28		3S FAMILY
37		ROLLS ROYCE	
	01		AVON
	04		CONWAY
	07		DART
	10		GAZELLE
	13		GEM
	16		GNOME
	19		GYPSY-QUEEN
	22		HERCULES
	25		M45H
	28		NIMBUS
	31		OLYMPUS
	34		PROTEUS
	37		RB 211
	40		RB 162
	41		RB 183
	43		SPEY
	46		TAY
	49		TYNE

	52		VIPER
	55		TRENT
	61		MERLIN
40		SOLIEV	
	01		D30
	02		D25V
	03		PS90
43		TURBOMECA	
	01		ARRIEL
	02		ARRIUS
	04		ARTOUSTE
	07		ASTAZOU TURBOPROP
	10		ASTAZOU TURBOSHAFT
	13		BASTAN
	16		BI-BASTAN
	19		MAKILA
	22		MARBORE
	25		TURMO TURBOPROP
	28		TURMO TURBOSHAFT
46		WILLIAMS	
	01		FJ44
49		ZMKB PROGRESS	
	01		D-27
Y0		MILITARY	
Z		UNKNOWN	