

# IFALPA



What is important to see  
in a wildlife control in an  
airport?

# ICAO Annex 14

## 9.4 Wildlife strike hazard reduction

*Note.—The presence of wildlife (birds and animals) on and in the aerodrome vicinity poses a serious threat to aircraft operational safety.*

9.4.1 The wildlife strike hazard on, or in the vicinity of, an aerodrome shall be assessed through:

- a) the establishment of a national procedure for recording and reporting wildlife strikes to aircraft;
- b) the collection of information from aircraft operators, aerodrome personnel and other sources on the presence of wildlife on or around the aerodrome constituting a potential hazard to aircraft operations; and
- c) an ongoing evaluation of the wildlife hazard by competent personnel.

*Note.— See Annex 15, Chapter 8.*

# THREAT

- A **threat** is an act of coercion wherein an act is proposed to elicit a negative response. It is a communicated intend to inflict harm or loss on another.



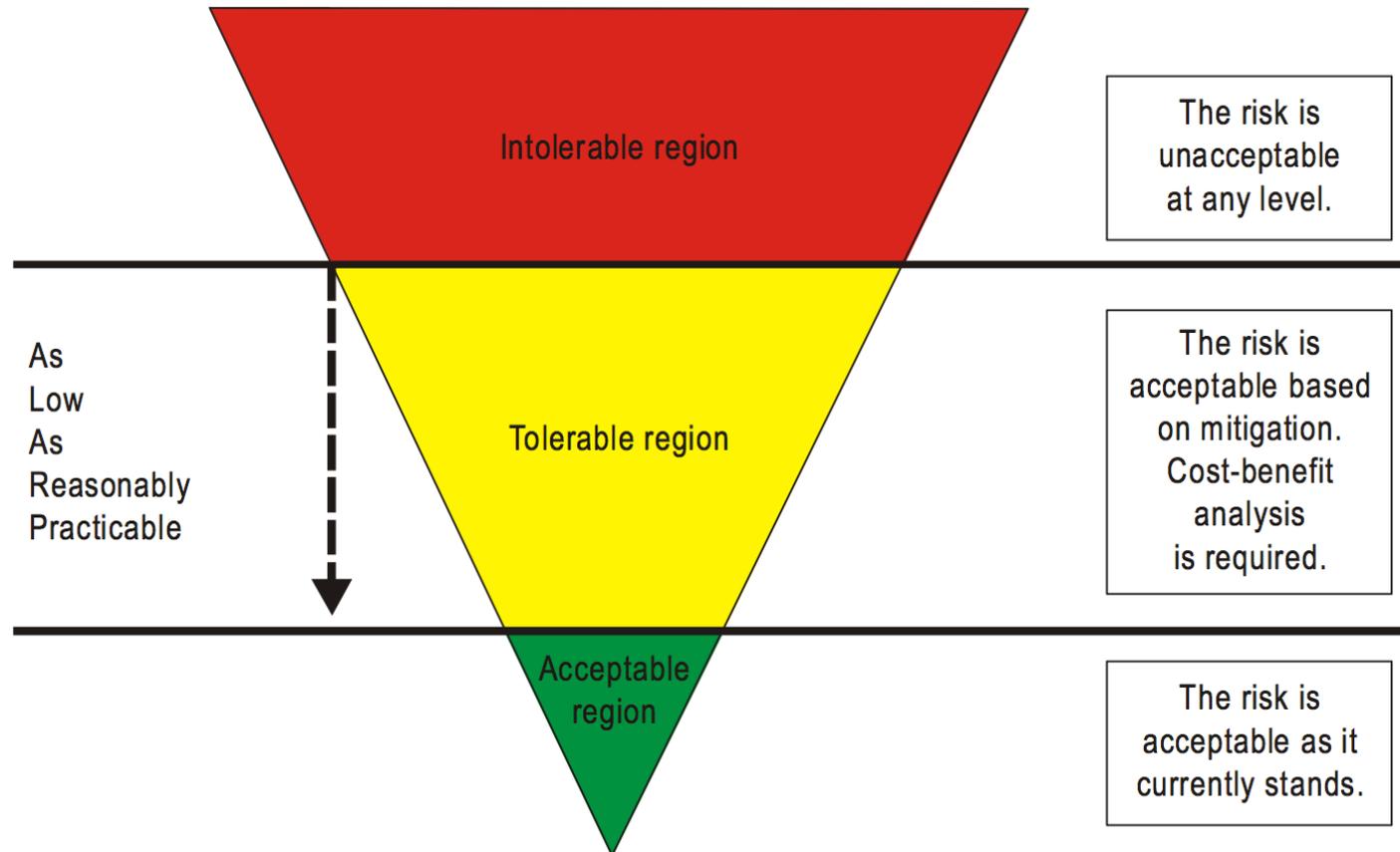
# *Safety*

- . The state in which the possibility of harm to persons or of property damage is reduced to, and maintained at or below, an acceptable level through a continuing process of hazard identification and safety risk management.

# SAFETY RISKS

- First fundamental — Safety risk management
  - Second fundamental — Safety risk probability
  - Third fundamental — Safety risk severity
  - Fourth fundamental — Safety risk tolerability
  - Fifth fundamental — Safety risk control/mitigation
- 

# First fundamental — Safety risk management



# Golf course between runways?



# SECOND FUNDAMENTAL — SAFETY RISK PROBABILITY

	<b>Meaning</b>	<b>Value</b>
<b>Frequent</b>	Likely to occur many times (has occurred frequently)	<b>5</b>
<b>Occasional</b>	Likely to occur sometimes (has occurred infrequently)	<b>4</b>
<b>Remote</b>	Unlikely to occur, but possible (has occurred rarely)	<b>3</b>
<b>Improbable</b>	Very unlikely to occur (not known to have occurred)	<b>2</b>
<b>Extremely improbable</b>	Almost inconceivable that the event will occur	<b>1</b>

**Figure 5-2. Safety risk probability table**

# THIRD FUNDAMENTAL — SAFETY RISK SEVERITY

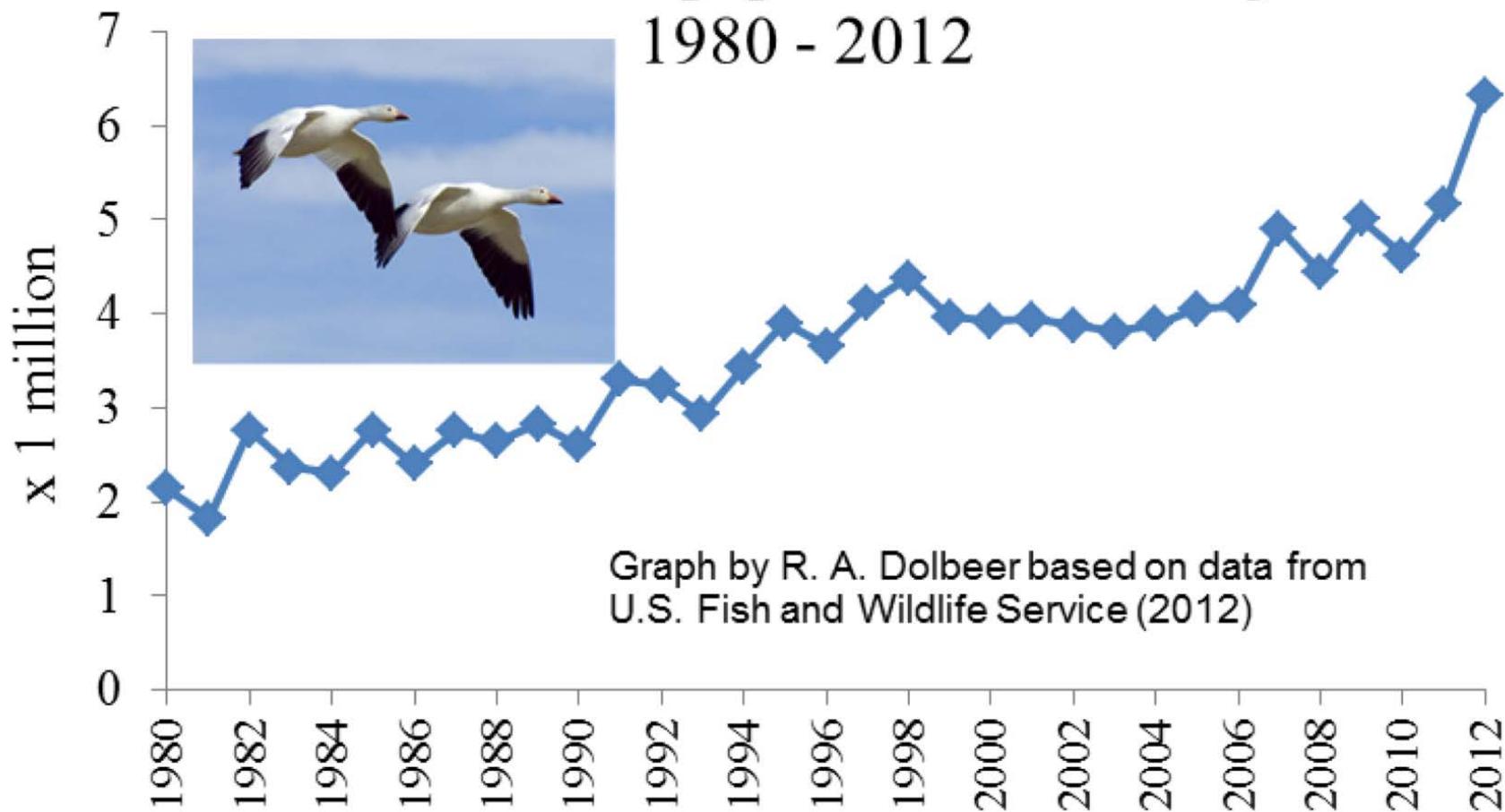
Severity of occurrence	Meaning	Value
<b>Catastrophic</b>	<ul style="list-style-type: none"> <li>— Equipment destroyed</li> <li>— Multiple deaths</li> </ul>	<b>A</b>
<b>Hazardous</b>	<ul style="list-style-type: none"> <li>— A large reduction in safety margins, physical distress or a workload such that the operators cannot be relied upon to perform their tasks accurately or completely</li> <li>— Serious injury</li> <li>— Major equipment damage</li> </ul>	<b>B</b>
<b>Major</b>	<ul style="list-style-type: none"> <li>— A significant reduction in safety margins, a reduction in the ability of the operators to cope with adverse operating conditions as a result of increase in workload, or as a result of conditions impairing their efficiency</li> <li>— Serious incident</li> <li>— Injury to persons</li> </ul>	<b>C</b>
<b>Minor</b>	<ul style="list-style-type: none"> <li>— Nuisance</li> <li>— Operating limitations</li> <li>— Use of emergency procedures</li> <li>— Minor incident</li> </ul>	<b>D</b>
<b>Negligible</b>	<ul style="list-style-type: none"> <li>— Little consequences</li> </ul>	<b>E</b>

**Figure 5-3. Safety risk severity table**

# Barn Swallow



# North American population of snow geese, 1980 - 2012



Graph by R. A. Dolbeer based on data from U.S. Fish and Wildlife Service (2012)

# FOURTH FUNDAMENTAL — SAFETY RISK TOLERABILITY

Risk probability	Risk severity				
	Catastrophic A	Hazardous B	Major C	Minor D	Negligible E
Frequent 5	<b>5A</b>	<b>5B</b>	<b>5C</b>	<b>5D</b>	<b>5E</b>
Occasional 4	<b>4A</b>	<b>4B</b>	<b>4C</b>	<b>4D</b>	<b>4E</b>
Remote 3	<b>3A</b>	<b>3B</b>	<b>3C</b>	<b>3D</b>	<b>3E</b>
Improbable 2	<b>2A</b>	<b>2B</b>	<b>2C</b>	<b>2D</b>	<b>2E</b>
Extremely improbable 1	<b>1A</b>	<b>1B</b>	<b>1C</b>	<b>1D</b>	<b>1E</b>

Figure 5-4. Safety risk assessment matrix

# FIFTH FUNDAMENTAL — SAFETY RISK CONTROL/MITIGATION

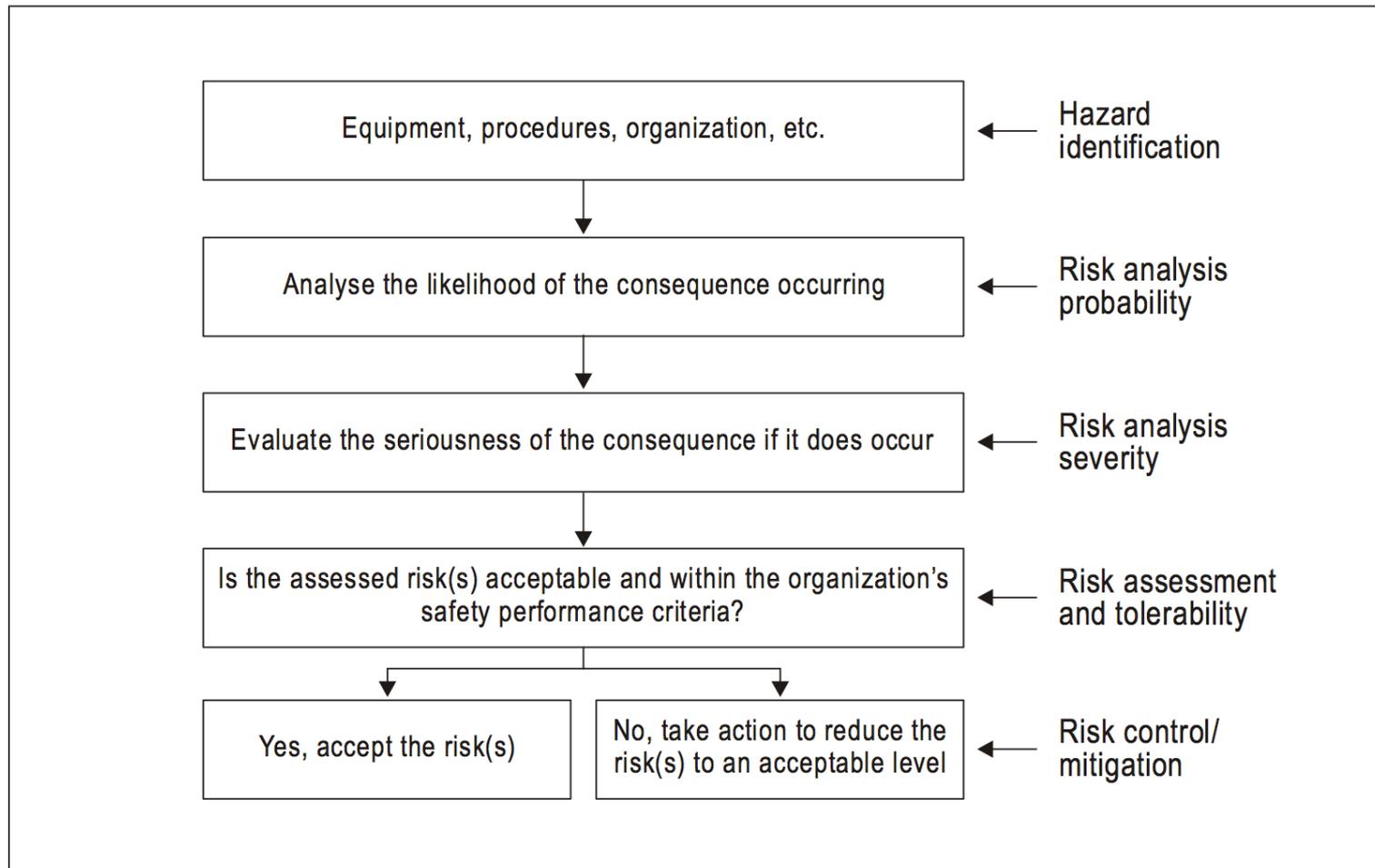
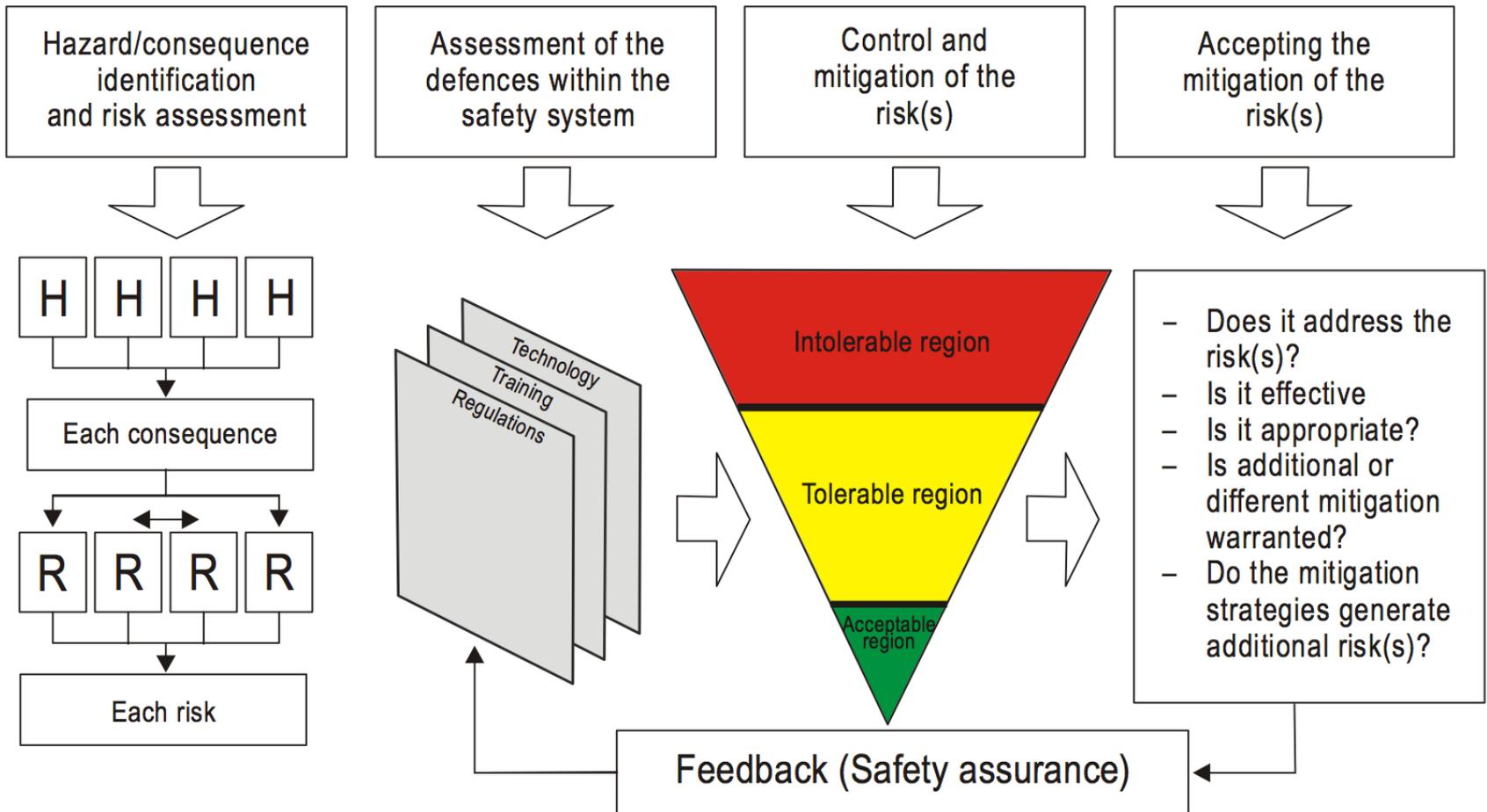


Figure 5-6. The process of safety risk management

# THE SAFETY RISK MITIGATION PROCESS



- 9.4.3 Action shall be taken to decrease the risk to aircraft operations by adopting measures to minimize the likelihood of collisions between wildlife and aircraft.



• NOTAM

- A0045/14 NOTAMR A0059/13  
Q) HCSM/QFAXX/IV/NBO/AE/000/999  
A) HCMF  
B) 1404101125  
C) PERM  
E) PILOTS ARE ADVISED TO EXER CTN WHILE LANDING AND TAKING OFF DUE TO PRESENCE OF LARGE BIRDS ABEAM THR RWY 09 AND THR RWY 20.

n

- 9.4.2 Wildlife strike reports shall be collected and forwarded to ICAO for inclusion in the ICAO Bird Strike Information System (IBIS) database.



# BIRD STRIKE REPORTING FORM

Send to \_\_\_\_\_

Operator \_\_\_\_\_ 01/02 Effect on Flight

Aircraft Make/Model \_\_\_\_\_ 03/04 none  32

Engine Make/Model \_\_\_\_\_ 05/06 aborted take-off  33

Aircraft Registration \_\_\_\_\_ 07 precautionary landing  34

Date day \_\_\_\_\_ month \_\_\_\_\_ year \_\_\_\_\_ 08 engines shut down  35

Local Time \_\_\_\_\_ 09 other (specify)  36

dawn  A day  B dusk  C night  D 10

Aerodrome Name \_\_\_\_\_ 11/12 Sky Condition \_\_\_\_\_ 37

Runway Used \_\_\_\_\_ 13 no cloud  A

Location if En Route \_\_\_\_\_ 14 some cloud  B

Height AGL \_\_\_\_\_ ft 15 overcast  C

Speed (IAS) \_\_\_\_\_ kt 16

Phase of Flight 17

precipitation

fog  38

rain  39

snow  40

parked  A en route  E

taxi  B descent  F

take-off run  C approach  G

climb  D landing roll  H

Bird Species\* \_\_\_\_\_ 41

Part(s) of Aircraft

	<b>Struck</b>	<b>Damaged</b>		<b>Seen</b>	<b>Struck</b>
radome	<input type="checkbox"/> 18	<input type="checkbox"/>	1	<input type="checkbox"/> A	<input type="checkbox"/> A
windshield	<input type="checkbox"/> 19	<input type="checkbox"/>	2-10	<input type="checkbox"/> B	<input type="checkbox"/> B
nose (excluding above)	<input type="checkbox"/> 20	<input type="checkbox"/>	11-100	<input type="checkbox"/> C	<input type="checkbox"/> C
engine no. 1	<input type="checkbox"/> 21	<input type="checkbox"/>	more	<input type="checkbox"/> D	<input type="checkbox"/> D
2	<input type="checkbox"/> 22	<input type="checkbox"/>			
3	<input type="checkbox"/> 23	<input type="checkbox"/>			
4	<input type="checkbox"/> 24	<input type="checkbox"/>			
propeller	<input type="checkbox"/> 25	<input type="checkbox"/>			
wing/rotor	<input type="checkbox"/> 26	<input type="checkbox"/>			
fuselage	<input type="checkbox"/> 27	<input type="checkbox"/>			
landing gear	<input type="checkbox"/> 28	<input type="checkbox"/>			
tail	<input type="checkbox"/> 29	<input type="checkbox"/>			
lights	<input type="checkbox"/> 30	<input type="checkbox"/>			
others (specify)	<input type="checkbox"/> 31	<input type="checkbox"/>			

Number of Birds

Size of Bird \_\_\_\_\_ 44

small  S

medium  M

large  L

Pilot warned of Birds \_\_\_\_\_ 45

yes  Y no  X

Remarks (describe damage, injuries and other pertinent information) \_\_\_\_\_ 46/47

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- [http://www.faa.gov/air\\_traffic/flight\\_info/aeronav/dot\\_files/httd.html](http://www.faa.gov/air_traffic/flight_info/aeronav/dot_files/httd.html)
- [http://www.faa.gov/air\\_traffic/flight\\_info/aeronav/dot\\_files/httd.html](http://www.faa.gov/air_traffic/flight_info/aeronav/dot_files/httd.html)
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civill  
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lorrylorry



GRACIAS