Reacción del piloto ante un posible impacto con fauna

Certificación

- FAR Part 25.631 BIRD STRIKE DAMAGE
- The empennage structure must be designed to assure capability of continued safe flight and landing of the airplane after impact with an 8-pound bird when the velocity of the airplane (relative to the bird along the airplane's flight path) is equal to VC at sea level, selected under §25.335(a). Compliance with this section by provision of redundant structure and protected location of control system elements or protective devices such as splitter plates or energy absorbing material is acceptable. Where compliance is shown by analysis, tests, or both, use of data on airplanes having similar structural design is acceptable.

FAR Part 23.775

- (h) In addition, for commuter category airplanes, the following applies:
- (1) Windshield panes directly in front of the pilots in the normal conduct of their duties, and the supporting structures for these panes, must withstand, without penetration, the impact of a two-pound bird when the velocity of the airplane (relative to the bird along the airplane's flight path) is equal to the airplane's maximum approach flap speed.

Part 29 Helicopteros

- 29.631
- The rotorcraft must be designed to ensure capability of continued safe flight and landing (for Category A) or safe landing (for Category B) after impact with a 2.2-lb (1.0 kg) bird when the velocity of the rotorcraft (relative to the bird along the flight path of the rotorcraft) is equal to V_{NE} or V_H (whichever is the lesser) at altitudes up to 8,000 feet. Compliance must be shown by tests or by analysis based on tests carried out on sufficiently representative structures of similar design.

Cuales aviones?

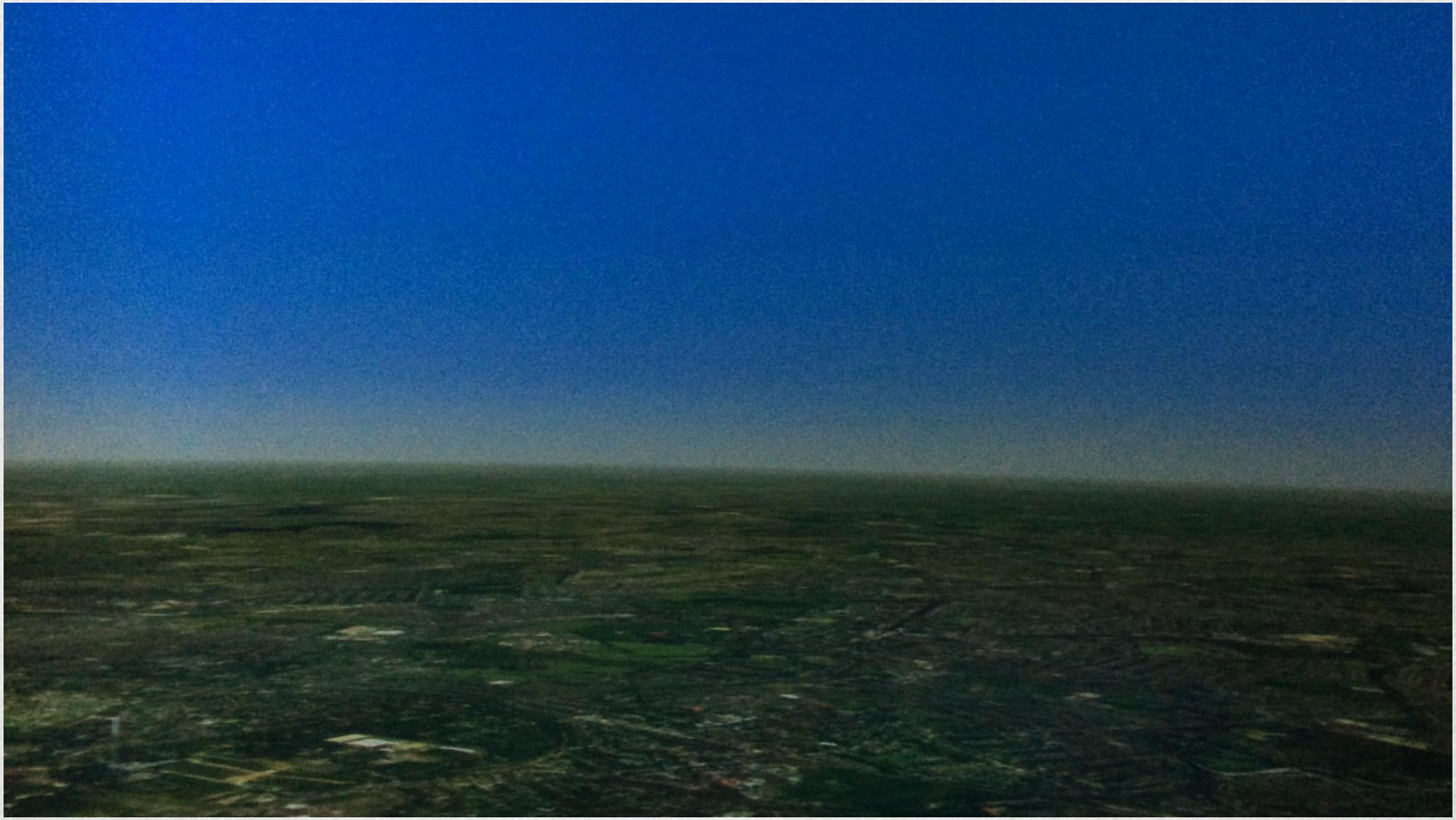
- B787-8/9

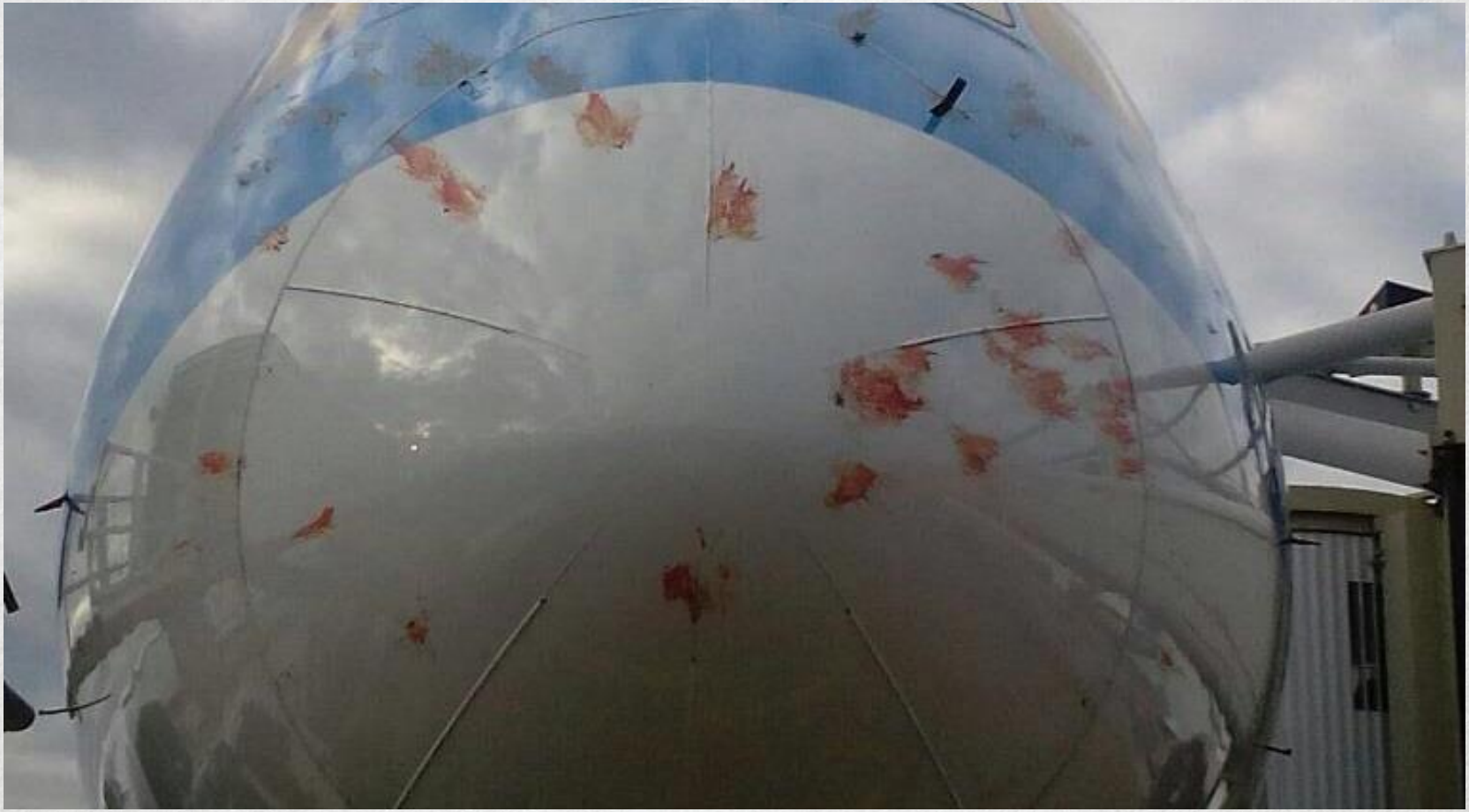
- A350

B 787


H032
IBUL/092°
DME ---
ILS
177
200
180
151
REF
120
100
30/137
GS 152
860
1550 VS
BARO
209
29.92 IN
276
1200
1000
800
600
SEL HDG 092

Head up display






LANDING
RUNWAY TURNOFF
LEFT
NOSE
RIGHT
A/P
IAS 145
HDG 183
V/S
2000

Bird Strike Damage & Windshield Bird Strike Final Report

IFALPA
The Global Voice of Pilots

COMMERCIAL-IN-CONFIDENCE

ATKINS

fera
The Food and Environment Research Agency

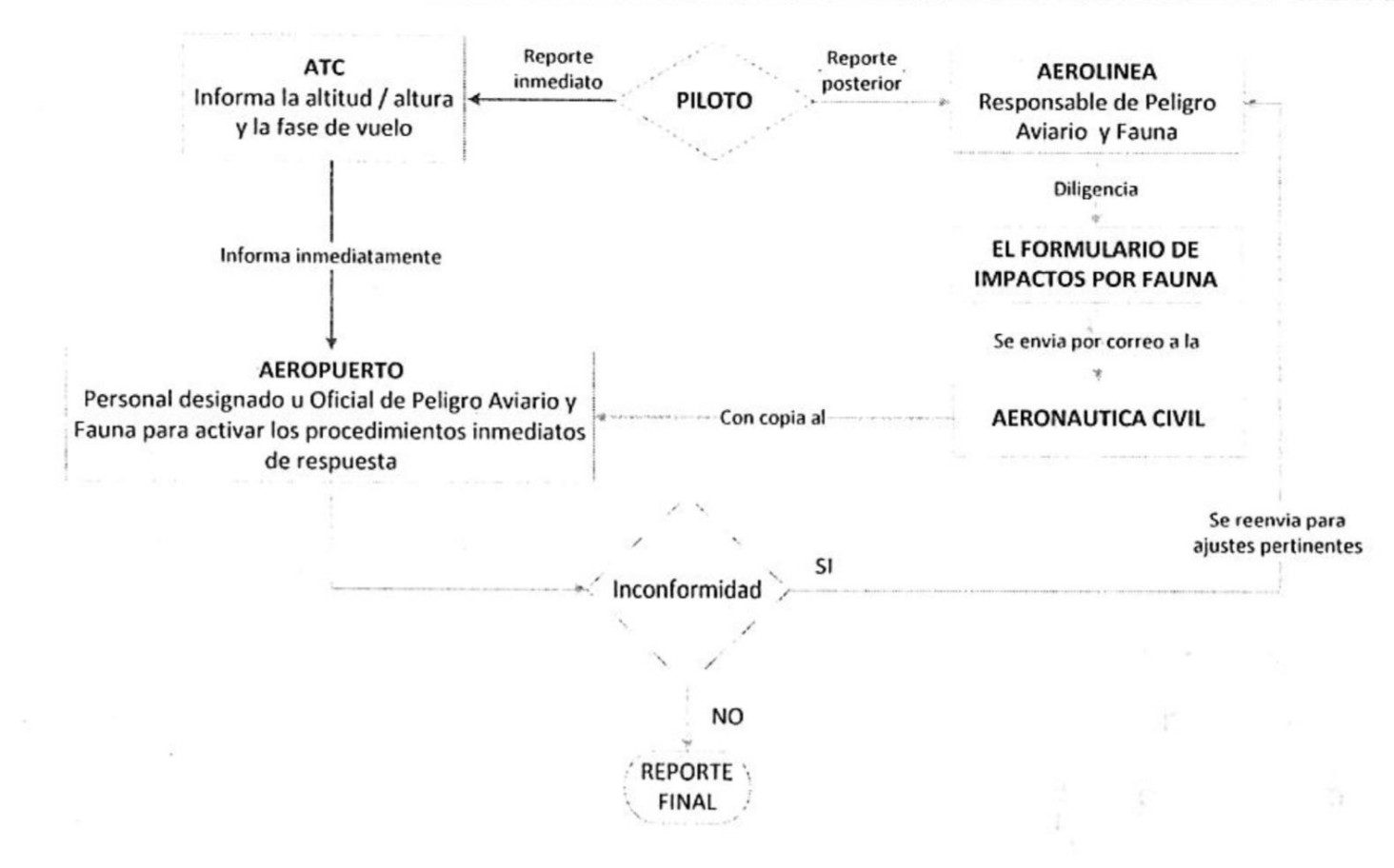
Recommendations

1. Improve the capture rate and completeness of bird strike reporting.
2. Monitor the growth in bird strike risk for each category of aircraft by monitoring the proportion of bird strikes above the certification equivalent value of KE.

Cultura del Reporte

- 9.4.2 Se recopilarán informes sobre choques con aves y otros animales y se enviarán a la OACI para su inclusión en la base de datos del Sistema de notificación de la OACI de los choques con aves (IBIS).
- *Nota.— El IBIS está destinado a recopilar y difundir información sobre los choques de aves y otros animales y aeronaves. En el* Manual sobre el sistema de notificación de la OACI de los choques con aves (IBIS) *(Doc 9332) figura información sobre este sistema.*

Aeronautica Civil CO



BIRD STRIKE REPORTING FORM
鳥衝突報告

☐ 鳥衝突 Birdstrike　☐ 鳥とのニアミス Near-miss

Operator 運航者 01/02

Aircraft Make/Model 航空機型式 03/04

Engine Make/Model 発動機型式 05/06

Aircraft Registration 登録番号 07

Date 日付　day 日 ____　month 月 ____　year 西暦 ____ 08

Local time 時刻　h 時 ____ : m 分 ____ JST(UTC +9hrs) 09

dawn 薄明 ☐　day 昼間 ☐　dusk 薄暮 ☐　night 夜間 ☐ 10

Aerodrome Name 空港名 11/12

Runway Used 使用滑走路 13

Location if En Route 発生場所 14

Height AGL 地上よりの高さ ____ ft 15

Speed(IAS) 指示対気速度 ____ kt 16

Phase of Flight 衝突事故発生時の飛行区分 17

parked 駐機	☐	en route 巡航	☐
taxi タキシング	☐	descent 降下	☐
take-off run 離陸滑走	☐	approach 進入	☐
climb 上昇	☐	landing roll 着陸滑走	☐

Part(s) of Aircraft 衝突を受けた航空機の部分

		Struck 衝突		Damaged 損傷
radome レドーム		☐	18	☐
windshield ウィンドシールド		☐	19	☐
nose(excluding above) ノーズ(上記のものを除く)		☐	20	☐
engine 発動機番号	no.1	☐	21	☐
	no.2	☐	22	☐
	no.3	☐	23	☐
	no.4	☐	24	☐
propeller プロペラ		☐	25	☐
wing/rotor ウィング/ローター		☐	26	☐
fuselage 胴体		☐	27	☐
landing gear 着陸装置		☐	28	☐
tail 尾部		☐	29	☐
lights 灯火		☐	30	☐
other(specify) その他(詳細を記入)		☐	31	☐

Effect on Flight フライトへの影響

none なし	☐	32
aborted take-off 離陸中止	☐	33
precautionary landing 目的地外着陸	☐	34
engines shut down 発動機停止	☐	35
other(specify) その他(詳細を記入)	☐	36

Sky Condition 天候状態 37

no cloud 快晴	☐	A
some cloud 一部雲	☐	B
overcast 一面雲	☐	C

Precipitation 降水

fog 霧	☐	38
rain 雨	☐	39
snow 雪	☐	40

Bird Species 鳥の種類 41

sparrow スズメ	☐	swallow ツバメ	☐	plover/sandpiper チドリ/シギ	☐
gull カモメ	☐	crow カラス	☐	pigeon ハト	☐
egret サギ	☐	kite トビ	☐	other その他	☐
unknown 不明	☐	other(specify) その他(鳥種を記入)			

Number of Birds 鳥の数(単位:羽)

	Seen 視認 42		Struck 衝突 43	
1	☐	A	☐	A
2-10	☐	B	☐	B
11-100	☐	C	☐	C
more 多数	☐	D	☐	D

Size of Bird 鳥の大きさ 44

small 小(スズメ程度)	☐	S	unknown 不明 ☐
medium 中(カモメ程度)	☐	M	
large 大	☐	L	

Pilot warned of Birds パイロットへの警告の有無 45

yes 有	☐	Y	no 無 ☐ N

Remarks (describe damage,injuries/and other pertinent information) 46/47
備考 (航空機、人員の損害/負傷の状況、程度及びその他参考となる事項等)

fan blade damaged ファンブレード損傷	☐	fan blade change ファンブレード交換	☐
engine change エンジン交換	☐	other(specify) その他(詳細を記入)	☐
injuries 人員の負傷	☐	(include cost as far as possible) (できる限りコスト等を含めること)	

Airport Safety and Aviation Security Division, Aviation Safety and Security Department, Civil Aviation Bureau, Ministry of Land, Infrastructure, Transport and Tourism,JAPAN
国土交通省航空局安全部空港安全・保安対策課

THIS INFORMATION IS REQUIRED FOR AVIATION SAFETY
本情報は航空の安全のために必要とされています。

operator's column 運航者欄　flight number 便名 ____　departure point 出発地 ____　arrival point 到着地 ____　name of reporter 担当者 ____　TEL 連絡先 ____

PANS AERODROME

- **CHAPTER 6**
- **WILDLIFE HAZARD MANAGEMENT**

- **6.1 GENERAL**
- **6.2 OBJECTIVES**
- **6.3 OPERATIONAL PRACTISES**
- **Wildlife Hazard Management Programme**
- **Roles and Tasks in the Wildlife Hazard Management Programme**
- **Collecting, Reporting and Recording Data on Wildlife Strikes and Observed Wildlife**
- **Wildlife Risk Assessment**
- **Habitat and Land Use Management**
- **Expelling and Deterring Wildlife**
- **Coordination with Stakeholders**
- **Personnel Training**

Personnel Training

- 6.3.32 The Wildlife Hazard Management Programme should include procedures for the training of personnel involved in wildlife control.
- *Note 1: The minimum initial and recurrent training requirements for wildlife control personnel are shown in Appendix A.*
- *Note 2: A typical training syllabus is shown in Attachment D.*

- 6.3.33 Training of wildlife control personnel should be conducted by competent wildlife control personnel, or specialists with proven experience in this field.
- 6.3.34 Wildlife control personnel should be fully aware of the details of the aerodrome operations, the aerodrome environment and should have received appropriate training, including:
  a. Airside driver training, aerodrome familiarisation, air traffic control communications, signs and marking, navigational aids, aerodrome operations, and safety and other matters the aerodrome operator deems appropriate; and
  b. aircraft familiarisation, including aircraft identification, and effect of wildlife strikes on aircraft systems.

WILDLIFE CONTROL TRAINING

IFALPA The Global Voice of Pilots

1. Initial training

The initial training for wildlife control personnel should address the following general areas:

a. an understanding of the nature and extent of the aviation wildlife hazard, and local hazard identification;

b. an understanding of the national and local regulations, standards, and guidance material related to aerodrome wildlife hazards management programme (use of best-practice models);

c. a broad appreciation of the local wildlife ecology and biology;

d. the importance of accurate wildlife identification and observations, including the use of field guides;

e. local and national laws and regulations relating to rare and endangered species, and species of special concern (e.g. protected), and the aerodrome operators policies relating to them;

f. high risk species identified in the wildlife risk assessment.

g. wildlife strike remains collection procedures;

h. active / tactical measures, using well established effective wildlife removal, dispersal, detection and control techniques ;

i. documentation of wildlife activities and control measures, and reporting procedures (the aerodrome wildlife management plan);

j. firearms and equipment and their use on the airfield, including the use of personal protective equipment.

2. Recurrent training

In order to maintain the competence of wildlife management personnel, recurrent training should be carried out including a selection of the general topics in the wildlife control initial training and also include:

a. changes in the local environment;
b. recent wildlife events at the aerodrome;
c. changes in active and passive measures; and
d. any other matters the aerodrome operator deems appropriate.

PREGUNTAS?

GRACIAS