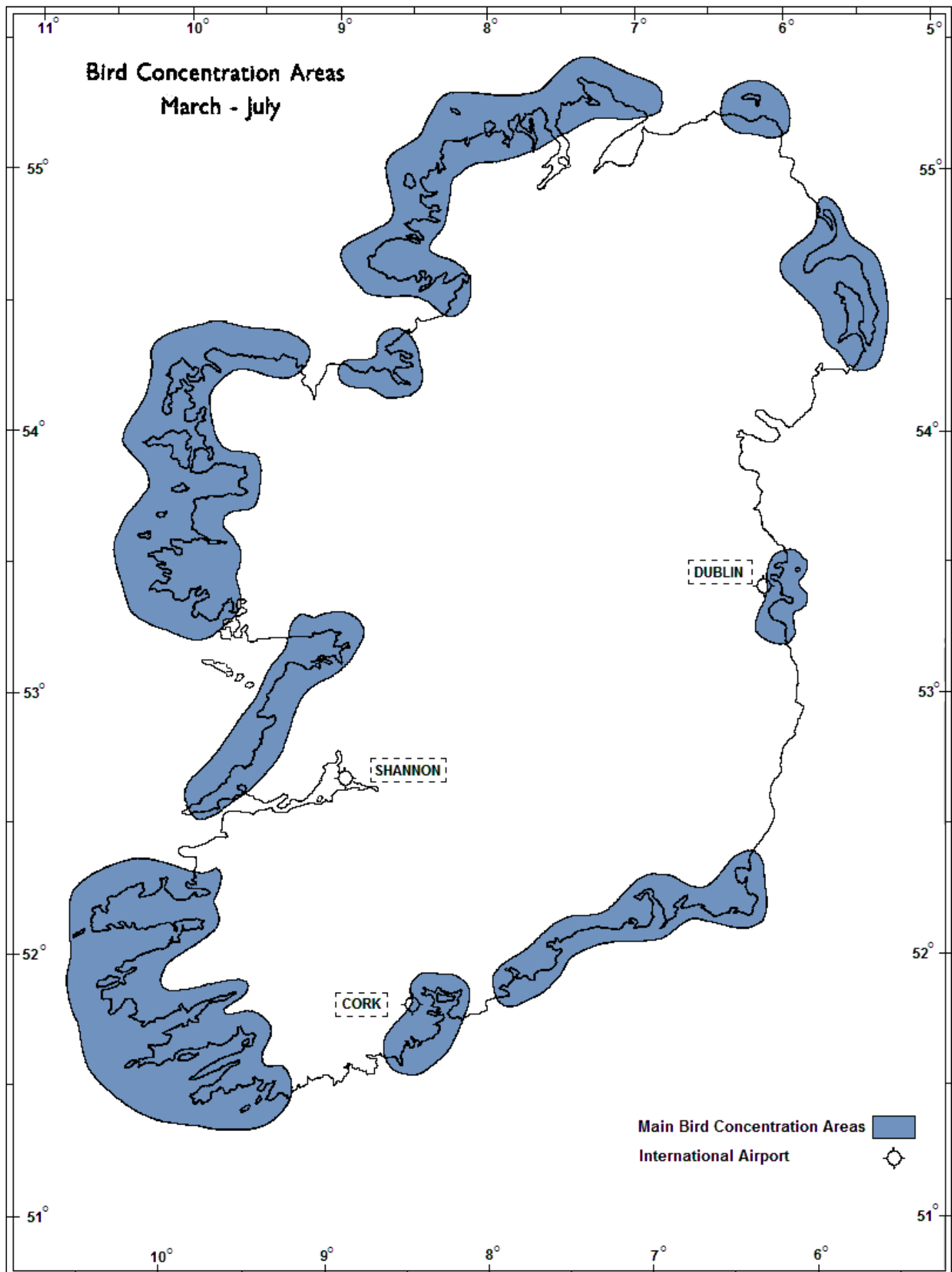


**ENR 5.6 BIRD MIGRATION AND AREAS WITH SENSITIVE FAUNA****1. BIRD CONCENTRATIONS AND MOVEMENTS IN IRELAND**

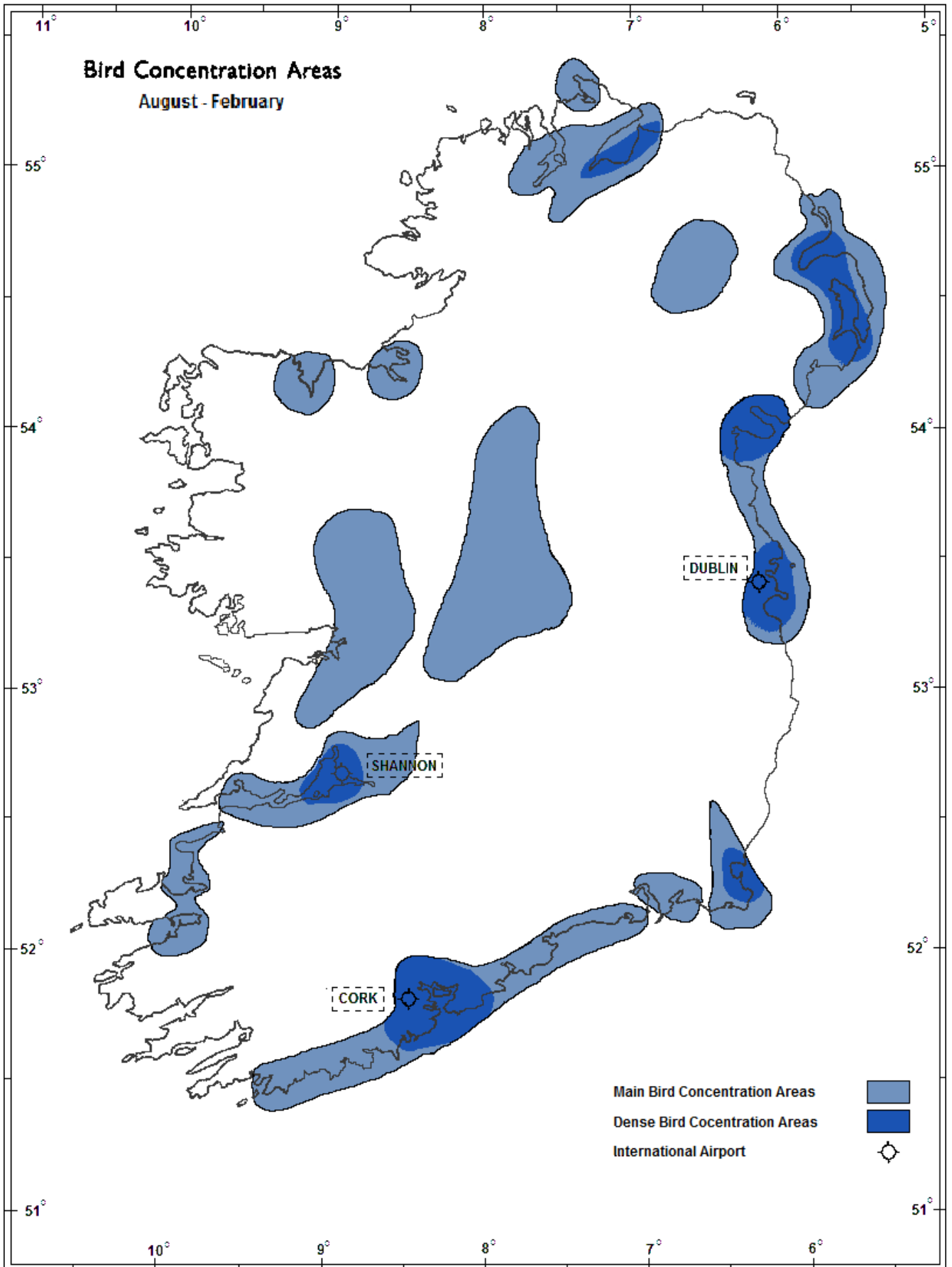
- 1.1 All shallow estuaries attract large flocks of feeding and roosting water birds. Inland waters are frequently used as gull roosts and as refuges by wildfowl and wading birds. Some areas of pasture are utilised by large flocks of feeding gulls and waders which fly to and from roosts at wetlands. In addition, large numbers of sea birds gather to breed on exposed headlands, cliffs and offshore islands. Some may visit their breeding sites throughout the year and soar high above them at times.
- 1.2 Many species are hazardous to aircraft. Attached maps show the main areas where flocks occur, particularly flocks of gulls, the birds responsible for most Irish bird strikes. The darker areas indicate particularly dense concentrations. Each marked concentration should be regarded as potentially hazardous out to 20-30 miles from its periphery to allow for dawn and dusk roosting movements. The number of sites where large concentrations of birds are known to occur is very great but some sites will be occupied for only short periods depending on the season and weather. Starlings roosts for instance are numerous but they often change position and hence are not shown on the maps: they are dangerous at dawn and dusk and highly dangerous if they erupt at night as they sometimes do when the birds migrate.
- 1.3 It should be noted that the change in bird concentration areas shown on the two maps, as from one period to the other, is gradual and the greatest movements of birds are witnessed during the changeover periods, e.g. February and March.
- 1.4 Migration of birds in Ireland in the spring and autumn is concentrated mainly on the coast. In spring small song-birds, mainly night-flying, arrive on the South and East coasts and then spread through the country; passage migrants tend to continue northwards using the East coast as a leading line; at the same time large numbers of sea birds return from the open seas to the cliffs and offshore islands to breed. In autumn, song-birds from Iceland/Greenland, Scotland, Scandinavia etc. arrive in large numbers along the North and North-West coasts and concentrations are again found on the South-East coasts as birds depart from the country. Numbers are far greater in autumn than in spring. The largest concentrations of waders are found mainly in the larger estuaries all around the coast in spring and autumn, though some species (plovers, curlews etc.) are found in considerable concentrations in many inland sites. Ducks, geese and swans are found in numbers in all major estuaries and many inland wetlands. The main arrivals in Autumn are on the North and North-West coasts and on the East coast. Swans and geese are found migrating at some height (up to 2,500ft) on these coasts in OCT/NOV and again from the end of FEB to the end of APR. Very large scale movements of ducks and waders especially, can be encountered (usually moving East-West) at any time from NOV to MAR.
- 1.5 Height data for migratory movements is inadequate but even under favourable conditions most migrants fly below 5,000ft AGL.
- 1.6 Meteorological conditions play a dominant role in determining the behaviour of birds especially migratory patterns and routes but also affecting concentrations in feeding areas and routes the occurrence of soaring behaviour. Disorientation in fog also occurs. The greatest numbers of birds migrate in clear weather and calm conditions or with a following wind. The biggest movements are initiated by the onset of cold weather in winter. Diurnal migrants depart at dawn, peak numbers on the move occurring during the first few hours of daylight and falling off during the day. Nocturnal migrants depart at dusk, peak numbers occurring during hours of darkness, but many may still be flying at dawn and some species of birds will carry on all day too. Birds which make long sea crossings may not arrive until after the normal peak migration hours.

**2. WEXFORD WILDFOWL WINTERING GROUNDS**

NAME	LATERAL LIMITS	UPPER LIMIT	LOWER LIMIT	REMARK
NORTH SLOB WEXFORD HARBOUR	Circle 1NM radius centred on position 5221N 0624W			Pilots are requested to avoid the area from 10 OCT to 30 APR
SOUTH SLOB WEXFORD HARBOUR	Circle 1NM radius centres on position 5217N 0625W	4,000ft	SFC	



Published by the Director at the Ordnance Survey Office, Dublin.



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### 3. AVOIDANCE OF OVERFLIGHT OF AREAS OF SENSITIVITY

1. While it is not possible to list each area of sensitivity, such areas can, normally, be readily identified from the air. Examples of areas of sensitivity include nature reserves, bird sanctuaries, national parks, stud farms, events such as horse and livestock shows, national monuments archaeological sites etc.
2. Pilots are requested, whenever possible, to pre-plan to avoid flying over or in close proximity to areas of sensitivity during the course of normal navigation. A local aerodrome should, on request be able to provide a brief for pilots on areas of local sensitivity.
3. The Table does not include sensitivity places such as hospitals, schools, places of worship, industrial and commercial complexes etc. which aircraft should also avoid overflying.

**Table 1:**

LOCATION	IDENTITY	COORDINATES	SENSITIVE PERIOD
2.5 NM North of Shannon Airport	Stud Farm	524440N 0085530W	All Year
4NM North-East of Bandon Co.Cork	Stud Farm	514550N 0084105W	All Year
Rockabill Island, North Co.Dublin	Nature Reserve	533530N 0060100W	1 MAY-31 AUG
Maidens Rock, Lamb Island, Dalkey, Co.Dublin	Nature Reserve	531630N 0060530W	1 MAY-30 SEP
The Breaches, Kilcoole, Co.Wicklow	Nature Reserve	530530N 0060130W	1 MAY - 30 AUG
North Slob, Wexford Harbour	Nature Reserve	522100N 0062400W	1 OCT- 30 APR
South Slob, Wexford Harbour	Nature Reserve	521700N 0062500W	1 OCT- 30 APR
Bull Island, Dublin Bay	Nature Reserve	532200N 0060900W	All Year
Premises of the Royal Dublin Society, Ballsbridge Dublin 4	Horse Show	531936N 0061342W	Week following first Monday in August (every year)
Glen of the Downs, Bray, Co.Wicklow	Stud Farm	530917.19N 0060723.53W	All Year
Ballyrouagh Slieverue, Co.Kilkenny	Stud Farm	521833N 0070203W	All Year
North of the Ardmore town, Waterford	Stud Farm	515829N 0074324W	All Year

#### 3.1 Reporting of Bird Strikes

##### 3.1.1 General

Annex 14, Volume 1, Aerodromes, requires that the bird strike hazard on, or in the vicinity of, an aerodrome shall be assessed through the establishment of a national procedure for recording and reporting of bird strikes to aircraft. As a contracting state to the Chicago Convention, Ireland provides data to for inclusion in the Bird Strike Information System (IBIS). This is a reporting system designed to collect and disseminate information on bird strikes resulting from collision between an aircraft and a bird.

In order to compile data for inclusion in the IBIS and to assess the extent of the bird strike hazard in Ireland, pilots of aircraft involved in a bird strike are requested to complete the Wildlife Strike Reporting Form and submit the form as soon as practicable to;

Post: National Bird Hazard Committee,  
Aerodromes and Airspace Standards Department,  
Irish Aviation Authority,  
The Times Building  
11-12 D'Olier Street  
Dublin 2  
Ireland

Fax: +353 1 677 4460

Email: [Birdstrikes@iaa.ie](mailto:Birdstrikes@iaa.ie)

URL: <http://www.iaa.ie/index.jsp?p=182&n=493>

The aircraft operator is requested to complete the Supplementary Wildlife Reporting Form and to submit the completed form to the above address.

### 3.1.2 Blank Forms are available

1. at the Airport Operations Office at Shannon Airport;
2. at Airport Duty Offices at other Airports within the state;
3. by application to the Irish Aviation Authority.

In connection with bird strikes on or near Irish airports every effort should be made to report the Altitude at which the strike occurs.

## 4. **DISPLAY OF AIRCRAFT LANDING LIGHTS**

It has been shown that the display of landing lights has reduced the number of bird strikes on aircraft. Therefore where the design limitations of aircraft installations permit, landing lights should be operated in flight within terminal areas and during take-off, approach-to-land and climb and descent procedures.

## WILDLIFE STRIKE REPORTING FORM

SEND TO: National Bird Hazard Committee,  
Aeronautical Services Dept,  
Irish Aviation Authority,  
The Times Building,  
11-12 D'Olier Street,  
DUBLIN 2.

Operator ..... 01/02

Aircraft Make/Model ..... 03/04

Engine Make/Model ..... 05/06

Aircraft Registration ..... 07

Date  
day ..... month ..... year ..... 08

Local Time ..... 09

Dawn ..... Day ..... Dusk ..... Night ..... 10

Aerodrome Name ..... 11/12

Runway Used ..... 13

Location if En Route ..... 14

Height AGL ..... ft 15

Speed (IAS) ..... kts 16

Phase of Flight ..... 17

Parked	<input type="checkbox"/>	A	en route	<input type="checkbox"/>	E
Taxi	<input type="checkbox"/>	B	descent	<input type="checkbox"/>	F
Take-off run	<input type="checkbox"/>	C	approach	<input type="checkbox"/>	G
Climb	<input type="checkbox"/>	D	landing roll	<input type="checkbox"/>	H

Part(s) of Aircraft

Random	<input type="checkbox"/>	18
Windshield	<input type="checkbox"/>	19
Nose (excluding above)	<input type="checkbox"/>	20
Engine no.	<input type="checkbox"/>	21
	1	22
	2	23
	3	24
	4	25
Propeller	<input type="checkbox"/>	26
Wing rotor	<input type="checkbox"/>	27
Fuselage	<input type="checkbox"/>	28
Landing gear	<input type="checkbox"/>	29
Tail	<input type="checkbox"/>	30
Lights	<input type="checkbox"/>	31
Other (specify)	<input type="checkbox"/>	

Effect on Flight

None	<input type="checkbox"/>	32
aborted take-off	<input type="checkbox"/>	33
Precautionary landing	<input type="checkbox"/>	34
engines shut down	<input type="checkbox"/>	35
Other	<input type="checkbox"/>	36

Sky Condition

No Cloud	<input type="checkbox"/>	A
Some Cloud	<input type="checkbox"/>	B
Overcast	<input type="checkbox"/>	C

Precipitation

Fog	<input type="checkbox"/>	38
Rain	<input type="checkbox"/>	39
Snow	<input type="checkbox"/>	40

Bird Species ..... 41

Number of Birds

	Seen	42	Struck	43
1	<input type="checkbox"/>	A	<input type="checkbox"/>	A
2-10	<input type="checkbox"/>	B	<input type="checkbox"/>	B
11-100	<input type="checkbox"/>	C	<input type="checkbox"/>	C
more	<input type="checkbox"/>	D	<input type="checkbox"/>	D

Size of Bird ..... 44

Small	<input type="checkbox"/>	S
Medium	<input type="checkbox"/>	M
Large	<input type="checkbox"/>	L

Pilot Warned of Birds

Yes  y No  x

Remarks (describe damage, injuries and other pertinent information)

.....

.....

.....

.....

Reported by .....  
(Optional)

**THIS INFORMATION IS REQUIRED FOR AVIATION SAFETY**

SUPPLEMENTARY WILDLIFE STRIKE REPORTING FORM  
OPERATOR COSTS AND ENGINE DAMAGE INFORMATION

**A Basic Data**

Operator ..... 01/02  
 Aircraft Make/Model ..... 03/04  
 Engine Make/Model ..... 05/06  
 Aircraft Registration ..... 07  
 Date of strike                    day        month        year        08  
 Aerodrome/Location if known ..... 11/12/14

**B Cost Information**

Aircraft time out of service ..... hours 52  
 Estimated cost of repairs or replacement    U.S.S (in thousands) ..... 53  
 Estimated Other Costs                    U.S.S (in thousands) ..... 54  
 (e.g. loss of revenue, fuel, hotels)

**C SPECIAL INFORMATION ON ENGINE DAMAGE STRIKES**

Engine position number	1	2	3	4
Reason for failure/shutdown	55	58	57	58
Uncontained failure	<input type="checkbox"/> A	<input type="checkbox"/> A	<input type="checkbox"/> A	<input type="checkbox"/> A
Fire	<input type="checkbox"/> B	<input type="checkbox"/> B	<input type="checkbox"/> B	<input type="checkbox"/> B
Shutdown-vibration	<input type="checkbox"/> C	<input type="checkbox"/> C	<input type="checkbox"/> C	<input type="checkbox"/> C
Shutdown-temperature	<input type="checkbox"/> D	<input type="checkbox"/> D	<input type="checkbox"/> D	<input type="checkbox"/> D
Shutdown-fire warning	<input type="checkbox"/> E	<input type="checkbox"/> E	<input type="checkbox"/> E	<input type="checkbox"/> E
Shutdown-other (specify)	<input type="checkbox"/> Y	<input type="checkbox"/> Y	<input type="checkbox"/> Y	<input type="checkbox"/> Y
-----				
Shutdown-unknown	<input type="checkbox"/> Z	<input type="checkbox"/> Z	<input type="checkbox"/> Z	<input type="checkbox"/> Z
Estimated percentage of thrust loss*	..... 59	..... 60	..... 81	..... 82
Estimated number of birds ingested	..... 63	..... 64	..... 65	..... 56
Bird Species	.....			41

\* These may be difficult to determine but even estimates are useful.  
 Retain all bird remains including feather fragments at airport of occurrence

Reported by .....

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