

Department of Transport and Regional Development

Bureau of Air Safety Investigation

INFORMATION BULLETIN

Reported Bird Strikes in Australia

**A review of bird-strike occurrences reported to
the Bureau of Air Safety Investigation**



Released by the Secretary of the Department of Transport and Regional Development
under the provisions of Section 19CU of part 2A of the Air Navigation Act (1920).

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Introduction

On 24 December 1995 an Australian ibis was ingested into the engine of an Airbus A300 on takeoff from Coolangatta Airport. The damage to the engine was extensive.

Bird strikes are a continual hazard for aircraft operations, particularly during the take-off and landing phases. The Bureau's database contains the bird-strike reports shown in appendix 1, tables 1A, 1B and 1C for the years 1993, 1994 and 1995. It should be noted that the requirement for reporting bird strike occurrences which did not involve aircraft damage was terminated in 1991. Prior to 1991 all bird-strike occurrences were reported to the Bureau and forwarded to the Civil Aviation Authority's Bird Hazard Investigation Unit.

Bird management

The responsibility for bird management at airports rests with the airport authorities. The Federal Airports Corporation employs environmental control strategies at all its airports. These strategies may differ according to the location but usually involve selected grass and tree plantings, mowing of grass to heights which discourage birdlife, drainage of storage ponds, and active bird-frightening programs. Action taken by airport authorities is monitored by the Civil Aviation Safety Authority through regular audits including evaluation of 'Bird Management Plans'.

Frequency of bird strikes

There has been concern that the bird-strike hazard has increased in 1996. The number of reported bird strikes at the various locations is shown in tables 2 and 3 in appendix 2. Most of these occurrences involved some damage, however minor, to an aircraft.

The frequency of bird strikes at the major airports is shown in table 2. It can be seen that Mackay, Townsville, Sydney, Cairns, Alice Springs and Brisbane have the highest frequencies of bird strikes. Melbourne, Darwin, and Coolangatta also have significant numbers of bird-strike occurrences.

Safety action

The Bureau wishes to draw this matter to the attention of the CASA, FAC and other airport authorities and recommends that 'Bird Management Plans' be reviewed especially at those airports with significant frequencies of bird-strike occurrences. The Bureau also suggests that Airservices Australia assist in reducing the bird-strike hazard by issuing NOTAMs when significant bird activity is noted and by advising flight crew where specific bird hazards have been observed by ATC officers.

SUMMARY

- The numbers of bird-strike occurrences reported to the Bureau have been summarised by location and by degree of damage to the aircraft. The frequency of bird strikes at major airports has been estimated using aircraft movement data.
- The frequency of reported bird-strikes is particularly high at Mackay, Townsville, Sydney, Cairns, Perth, Alice Springs and Sydney.
- Serious bird-strike occurrences involving large fan engined aircraft and turbo-prop aircraft continue to be of concern.
- Actions to prevent bird strikes during the take-off and landing phases are the responsibility of airport authorities. The need for effective bird-management plans is reinforced by the Australian bird-strike statistics.

RECOMMENDATION R 960129

As a result of this review the Bureau of Air Safety Investigation recommends that:

- The Federal Airports Corporation and other airport authorities review 'Bird Management Plans', especially for those locations with significant frequencies of bird-strike occurrences;
- The Civil Aviation Safety Authority assess the need for increased oversight of 'Bird Management Plans' to ensure the most effective and efficient reduction in the frequency of bird strikes; and
- Airservices Australia assist in reducing the bird-strike hazard by issuing NOTAMs when significant bird activity has been noted or is forecast, and by advising flight crew where specific bird hazards have been observed.

APPENDIX 1

Table 1A
Bird-strike occurrences by location and aircraft damage 1993

Location	Minor	Nil	Substantial	Unknown	Total
15 km E Leopold Station	0	0	1	0	1
15 km ESE Robinvale	0	1	0	0	1
15 km SE Robinvale	1	0	0	0	1
20 km W Perth	0	1	0	0	1
25 km NW Sydney	0	1	0	0	1
Adelaide	0	19	0	0	19
Aeropelican	0	1	0	0	1
Albury	0	1	0	0	1
Alice Springs	1	15	0	0	16
Archerfield	1	2	0	0	3
Bonshaw	0	0	0	1	1
Brisbane	0	22	0	0	22
Cairns	4	50	0	2	56
Caloundra	0	1	0	0	1
Canberra	1	0	0	0	1
Cooktown	0	1	0	0	1
Coolangatta	0	22	0	0	22
Darwin	0	9	0	0	9
Devonport	1	0	0	0	1
Dwellingup	0	1	0	0	1
Emerald	0	1	0	1	2
Essendon	0	3	0	0	3
Flinders Island	0	1	0	0	1
Gladstone	0	2	0	0	2
Hamilton Island	0	2	0	0	2
Hobart	0	3	0	0	3
Hobart/Cambridge	0	0	0	1	1
Hooker Creek	0	1	0	0	1
Horsham	0	1	0	0	1
Kalgoorlie	0	3	0	0	3
Karratha	0	1	0	0	1
Kowanyama	0	1	0	0	1
Kununurra	2	4	0	0	6
Launceston	1	3	0	2	6
Mackay	0	1	0	0	1
Maitland	1	0	0	0	1
Maroochydore	0	1	0	0	1
Melbourne	0	23	0	11	34
Moorabbin	0	1	0	0	1
Moree	1	0	0	0	1
Mount Isa	0	3	0	0	3
Murray Field	0	1	0	0	1
Newman	0	1	0	0	1
Norfolk Island	0	2	0	0	2

Location	Minor	Nil	Substantial	Unknown	Total
Parafield	0	5	0	3	8
Perth	1	21	0	3	25
Pomonal	1	0	0	0	1
Port Hedland	0	1	0	0	1
Port Macquarie	0	1	0	0	1
Portland	0	1	0	0	1
Proserpine	0	0	0	1	1
Rockhampton	0	9	1	0	10
Roma	1	0	0	0	1
Shepparton	1	0	0	0	1
Swan Hill	1	0	0	0	1
Sydney	0	36	0	1	37
Tindal	0	1	0	0	1
Townsville	2	11	0	0	13
Wagga Wagga	0	5	0	0	5
Whyalla	0	1	0	0	1
Williamtown	1	0	0	0	1
Wynyard	2	2	0	0	4
Grand Total	24	300	2	26	352

Table 1B
Bird-strike occurrences by location and aircraft damage 1994

Location	Minor	Nil	Substantial	Total
220 km NW Brisbane	0	1	0	1
39 km NNW Adelaide	1	0	0	1
4 km SW Kingscliff	1	0	0	1
50 km NE Winton	1	0	0	1
85 km S Kununurra	0	1	0	1
8 km S Birdsville	1	0	0	1
9 km E Longford	0	1	0	1
9 km S Kepple Sands	1	0	0	1
9 km SE Nowra	1	0	0	1
Adelaide	2	19	0	21
Albury	0	1	0	1
Alice Springs	2	5	0	7
Archerfield	1	0	0	1
Argyle	0	1	0	1
Armidale	1	0	0	1
Ballina	0	3	0	3
Beaudesert	1	0	0	1
Brisbane	2	33	0	35
Broome	0	1	0	1
Bundaberg	0	1	0	1
Burketown	1	0	0	1
Cairns	7	45	0	52
Canberra	0	1	0	1
Charleville	0	1	0	1
Cloncurry	0	1	0	1

Location	Minor	Nil	Substantial	Total
Coffs Harbour	0	1	0	1
Cook Island	1	0	0	1
Cooktown	0	1	0	1
Coolangatta	1	23	0	24
Cooma	0	3	0	3
Curtin	0	3	0	3
Darwin	1	0	0	1
Derby	0	5	0	5
Devonport	0	1	0	1
Emerald	0	3	0	3
Essendon	1	0	0	1
Geraldton	0	1	0	1
Gladstone	0	2	0	2
Grafton	1	3	0	4
Hobart	0	9	0	9
Hughenden	2	0	0	2
Jabiru	0	1	0	1
Jandakot	0	3	0	3
Kalgoorlie	0	1	2	3
Karratha	0	3	0	3
Kowanyama	0	1	0	1
Kununurra	1	1	0	2
Launceston	2	2	0	4
Mabuiag Island	1	0	0	1
Mackay	0	5	0	5
Margaret Brock Reef Rig	0	1	0	1
Maroochydore	0	1	0	1
Melbourne	1	42	0	43
Mount Isa	0	4	0	4
Mt Isa	1	0	0	1
Newman	0	1	0	1
Normanton	1	0	0	1
Paraburdoo	1	0	0	1
Parafield	1	5	0	6
Perth	1	20	0	21
Peterborough	0	1	0	1
Point Cook	1	0	0	1
Port Hedland	0	2	0	2
Port Macquarie	0	4	0	4
Proserpine	0	1	0	1
Richmond	2	0	0	2
Rockhampton	1	16	0	17
Roma	0	1	0	1
Swan Hill	0	1	0	1
Sydney	2	77	0	79
Tamworth	1	2	0	3
Telfer	1	0	0	1
Tindal	1	0	0	1
Toowoomba	1	0	0	1

Location	Minor	Nil	Substantial	Total
Townsville	5	17	0	22
Troughton Is	0	1	0	1
Wagga Wagga	0	7	0	7
West Sale	0	1	0	1
Whyalla	0	1	0	1
Wrotham Park	0	1	0	1
Wynyard	1	2	0	3
Grand Total	56	396	2	454

Table 1C
Bird-strike occurrences by location and
aircraft damage 1995

Location	Minor	Nil	Total
15 km N Albury	0	1	1
18 km E Ramingining	0	1	1
28 km SE Maryborough	0	1	1
32 km S Port Pirie	1	0	1
37 km E Darwin	0	1	1
37 km S Waikerie	1	0	1
40 km N Mount Isa	1	0	1
83 km NW Canberra	0	1	1
Adelaide	2	31	33
Albury	1	1	2
Alice Springs	1	4	5
Argyle	0	1	1
Avalon	0	1	1
Ballina	0	1	1
Bankstown	1	0	1
Barnong Homestead	0	1	1
Bindook	1	0	1
Bribie Is	1	0	1
Brisbane	3	21	24
Broome	0	2	2
Cairns	1	37	38
Canberra	0	1	1
Carnarvon	0	1	1
Casino	0	1	1
Coffs Harbour	0	1	1
Collinsville-Clermont	0	1	1
Cooktown	0	1	1
Coolangatta	3	12	15
Darwin	0	8	8
Devonport	0	1	1
Doomadgee	1	0	1
Dubbo	0	1	1
Emerald	0	2	2

Location	Minor	Nil	Total
Geraldton	1	0	1
Gladstone	0	2	2
Goondiwindi	0	2	2
Griffith	0	1	1
Hamilton Is	0	1	1
Heron Is	0	1	1
Hervey Bay	0	2	2
Hobart	1	11	12
Hoxton Park	1	0	1
Jabiru	0	1	1
Jandakot	1	4	5
Karratha	0	3	3
Kowanyama	0	2	2
Kununurra	0	1	1
Lismore	1	0	1
Lord Howe Is	0	1	1
Mackay	0	23	23
Maroochydore	0	1	1
Melbourne	0	19	19
Mildura	1	2	3
Moorabbin	2	8	10
Mount Gambier	1	0	1
Mount Isa	1	2	3
Newman	0	1	1
Palm Is	0	1	1
Parafield	0	9	9
Perth	0	19	19
Plutonic Gold Mine	0	1	1
Port Hedland	0	2	2
Port Macquarie	0	3	3
Rockhampton	1	4	5
Roma	0	1	1
Sydney	0	74	74
Tamworth	1	0	1
Tindal	0	1	1
Toowoomba	0	3	3
Townsville	2	21	23
Wagga Wagga	0	1	1
Williamtown	1	1	2
Wynyard	1	5	6
Yam Is	1	1	2
Grand Total	35	370	405

APPENDIX 2

Table 2

Bird strikes at major airports 1 January 1996 – 31 July 1996

Airport	Number of strikes	Number of movements	1 in ?
Adelaide	4	74,560	18,640
Alice Springs	6	23,839	3,973
Bankstown	1	272,538	272,538
Brisbane	26	107,468	4,133
Cairns	28	77,312	2,761
Canberra	2	91,933	45,967
Coolangatta	7	57,489	8,213
Darwin	9	59,722	6,636
Hamilton Island	1	10,408	10,408
Hobart	1	35,902	35,902
Mackay	28	23,888	853
Melbourne	18	102,014	5,667
Parafield	4	184,213	46,053
Perth	21	68,448	3,259
Rockhampton	2	24,620	12,310
Sydney	69	179,891	2,607
Tamworth	2	58,111	29,056
Port Hedland	1	6,210	6,210
Townsville	23	41,167	1,790

denotes bird-strike incidence > than 1 in 5,000.

Table 3

Bird strikes at other locations 1 January 1996 – 31 July 1996

Location	Number of strikes
10 km S Pearce	1
163 km S Kumaria	1
176 km E Perth	1
22 km NNE Broome	1
27 km W Milingimbi	1
2 km N Lake Mokoan	1
30 km S Weipa	1
5 km ESE Bankstown	1
8 km N Sydney	1
9 km SW Evans Head	1
Carnavon	1
Cocos Island	1
Dubbo	1
Emerald	6
Exmouth	1
Fremantle	1
Grafton	2

Location	Number of strikes
Hong Kong	1
Karratha	1
King Island	1
Kingscote	1
Kowanyama	2
Lady Barron	1
Lady Elliot Island	1
Maningrida	1
Merredin	1
Mildura	1
Moree	1
Mount Isa	3
Mount Keith	1
Norfolk Island	1
Paraburdoo	1
Pornpuraaw	1
Port Lincoln	1
Proserpine	1
Three Springs	1
Timber Creek	1
Tindal	2
Whyalla	1
Wynyard	3