



THE IMPACT OF WILDLIFE STRIKES TO THE QANTAS GROUP OF AIRLINES

(and what to do about it?)

Australian Aviation Wildlife Hazard Group Forum

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Background



- The Qantas Group of airlines (includes Qantas Airlines, Australian Airlines, Jetstar, QantasLink, Express Freighters Australia and Jetconnect) are concerned about the safety implications of any wildlife strike

Concerns:

- Immediate safety impact to both airline passengers and to the general public
- Customer disruption and dissatisfaction
- Financial impact to the airline business
- Damage to property and Brand
- Heightened risk on twin engine aircraft
- Environmental aspects

Responsibility



Who is responsible?

- Airport Authorities under CAR MOS Part 139
- CASA as the National Airworthiness Authority to enforce MOS
- Airlines as responsible corporate identities
- Aircraft and Engine manufacturers
- Australian Aircraft Wildlife Hazard Group to provide guidance

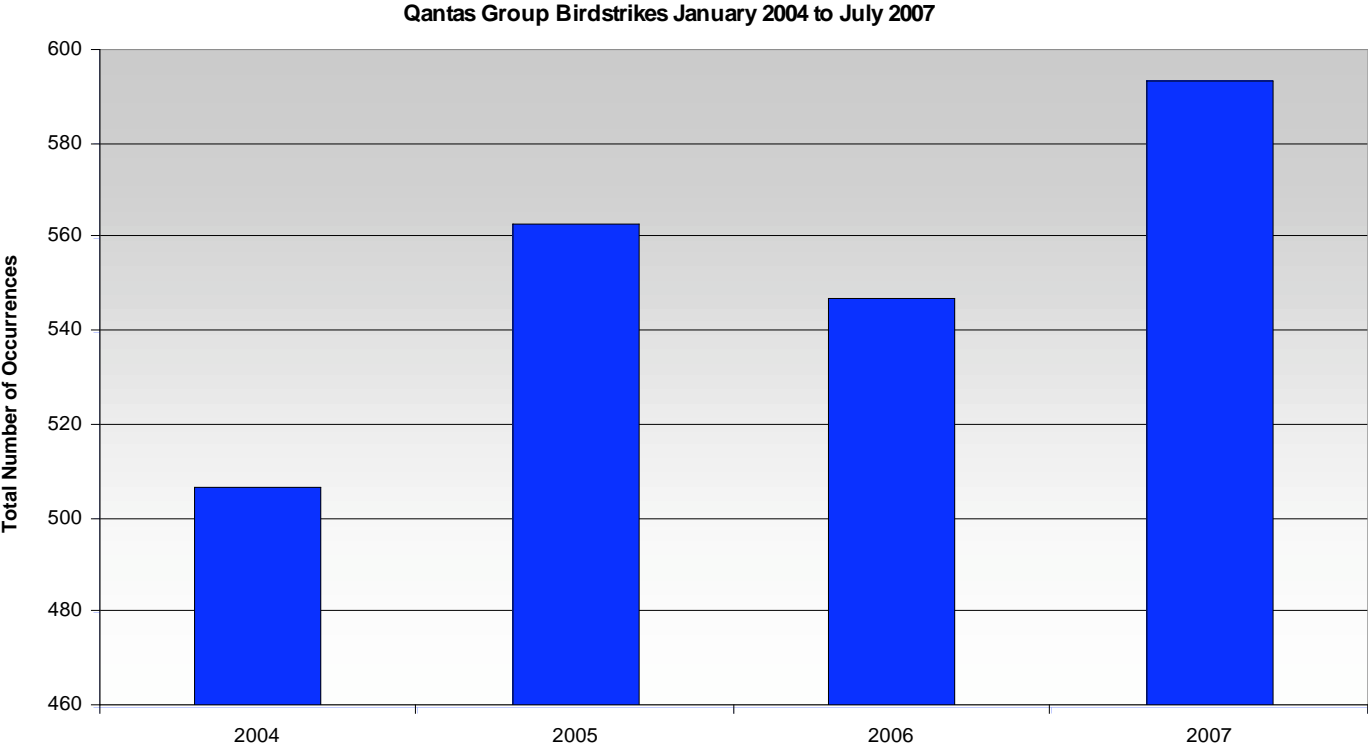
Wildlife Strike Event Costing



Discussion:

- **Safety** is the paramount concern
- **Financial** impact to the operation is high
- **Costing** of events is now more readily available to the airline
- **Event costing may consist of any or all of the following:**
 - immediate impact of an Air Turn Back or a Rejected Take-off
 - impact from flight delays (often with multiple network delays)
 - crewing alterations
 - accommodation outlays
 - re-scheduling of passengers and aircraft
 - engineering costs for inspections, replacement of parts, repairs, rectification and labour (including relocation costs dependent on event port)
 - injury costs

QANTAS Group Birdstrike Event Count: 2004 to projected-2007



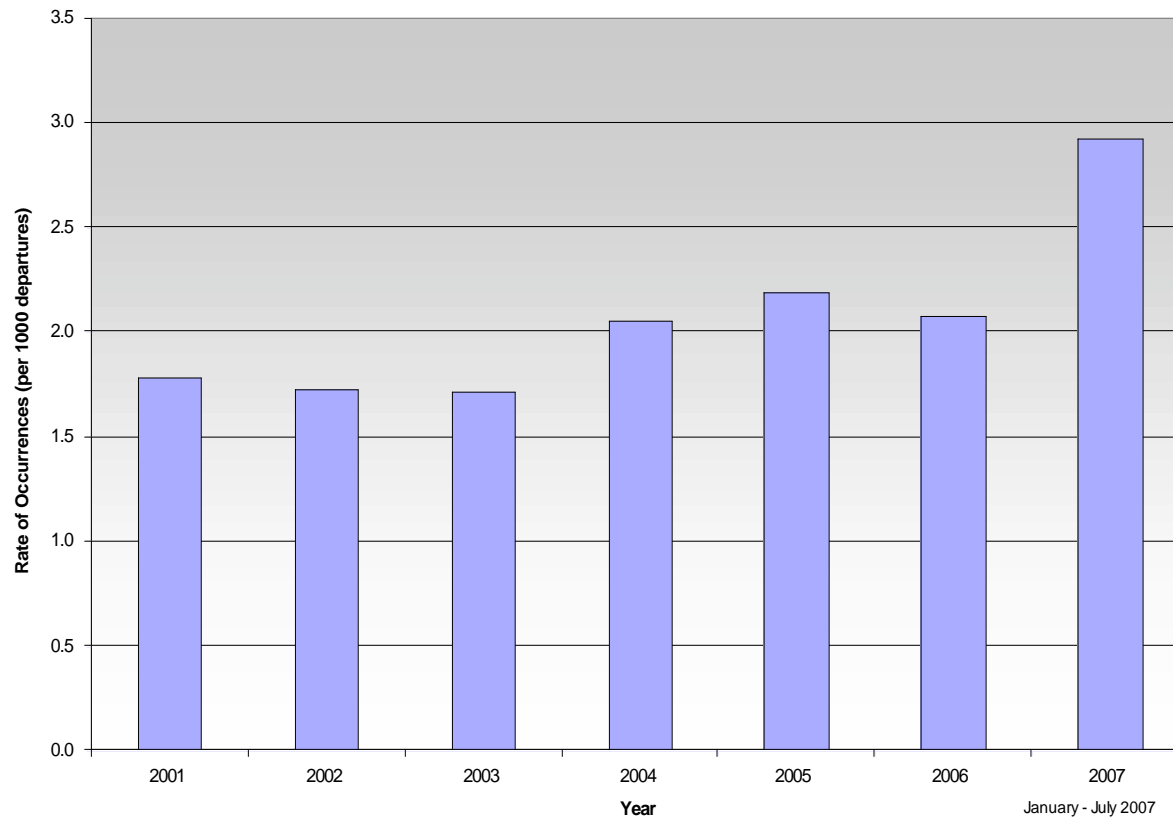
Based on average monthly count of birdstrikes using birdstrikes data from January - July 2007

QANTAS GROUP BIRDSTRIKES: JAN2004 to Projected 2007 (based on figures for JAN-JUL2007)

QANTAS Airlines Rate of Occurrence: 2001 to projected-2007



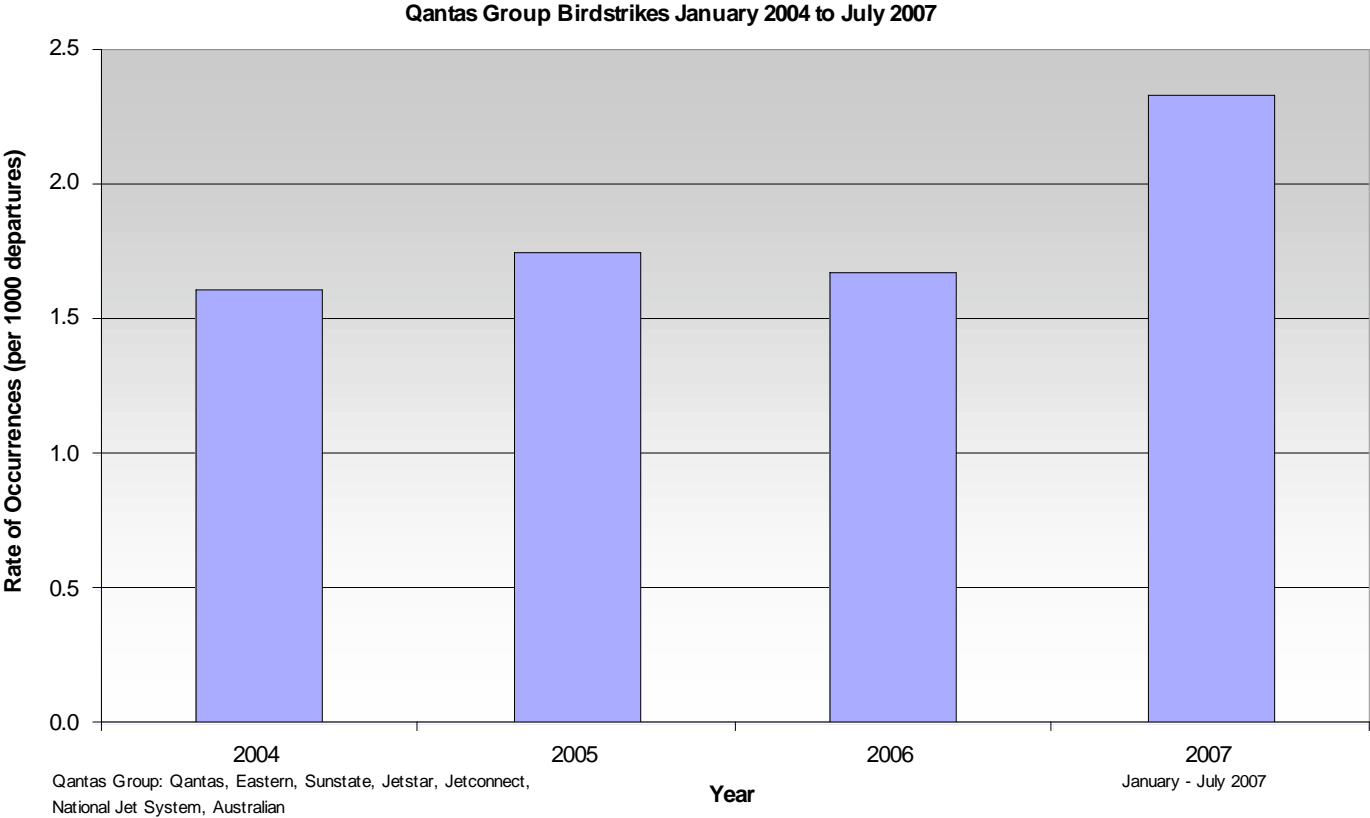
Qantas Airlines Birdstrikes January 2004 to July 2007



- Gradually increasing rate over the past seven years
- Higher aircraft utilization and less restrictions on operating times
- Wider variety of ports visited
- Increased exposure for events at unmanned ports

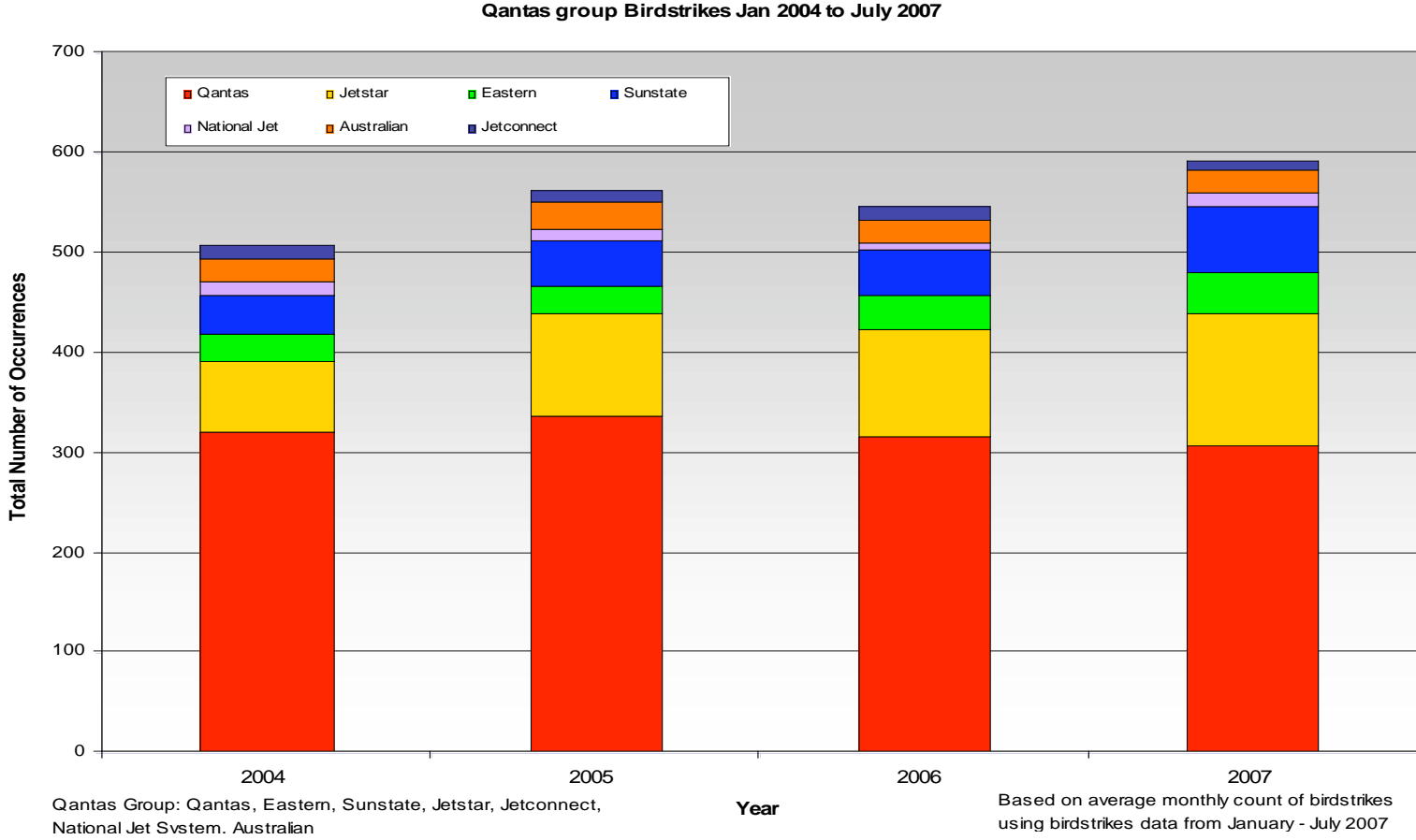
BIRDSTRIKE RATE TO QANTAS AIRLINES: JAN2004 to JUL2007 (projected total for 2007)

QANTAS Group strike rates: 2004 to projected-2007



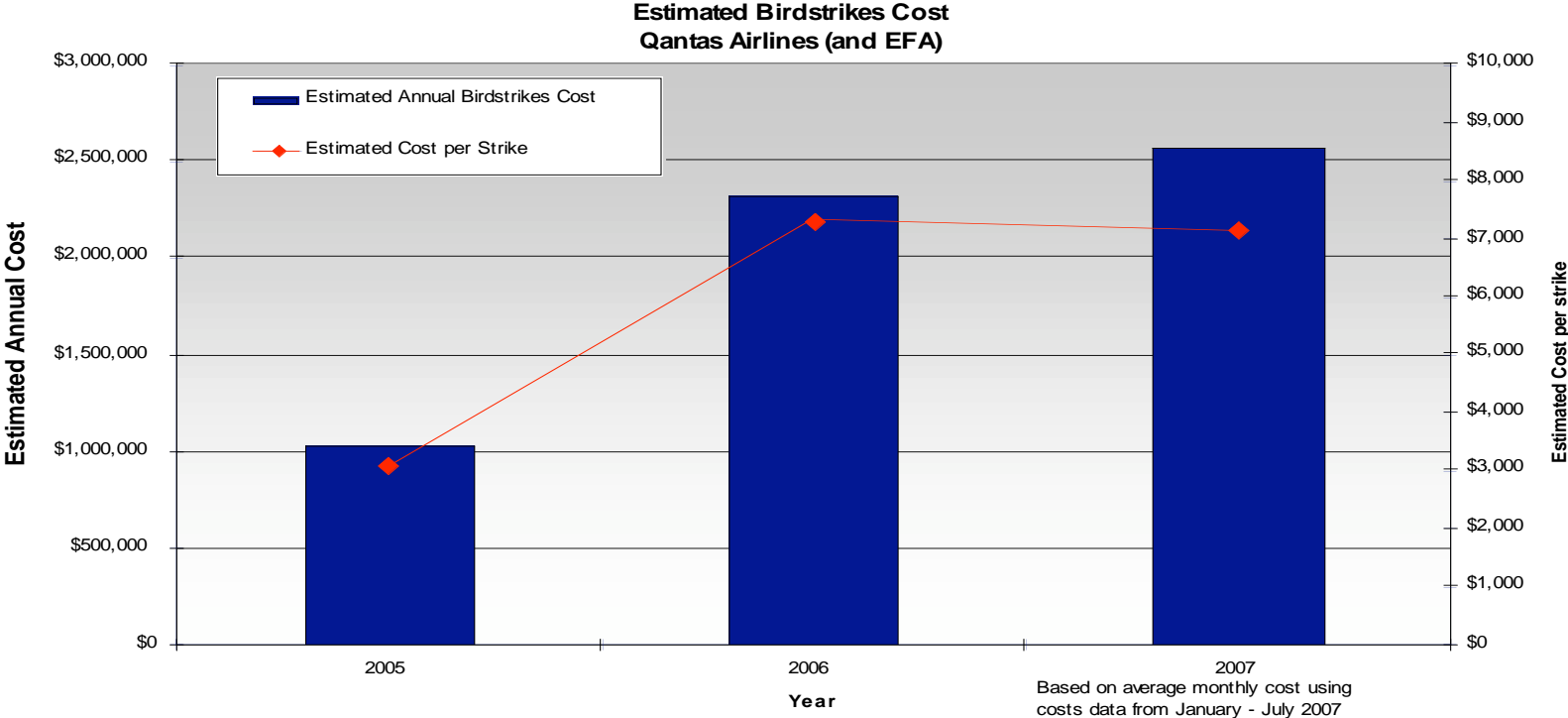
QANTAS GROUP BIRDSTRIKE RATE: JAN2004 to Projected-2007 (based on figures for JAN-JUL 2007)

QANTAS Group individual airline strikes: (2004 to projected-2007)



QANTAS GROUP BIRDSTRIKE EVENT COUNT: JAN2004 to Projected-2007 (based on figures for JAN-JUL2007)

QAN & EFA Costs: 2005 to projected-2007



Note: Where actual costs are unknown estimated costs have been used. The costs in this report are inclusive of direct and indirect costs. Direct cost includes inspection (including boroscope), repair and cleaning of the aircraft. Indirect cost includes delay, investigation, treatment of injury and other costs incurred beyond inspection and repairs. Costs are derived from sources which include Qantas Network Performance, Operations Control, Qantas Insurance, and Qantas Engineering.

QANTAS AIRLINES & EFA COSTS: 2005 to Projected 2007 (based on figures JAN-JUL2007)

QAN & EFA Wildlife Strike Cost figure for 2006-2007



- Conservatively, for 2006 the joint financial impact to QANTAS Airlines and Express Freighters Australia was in excess of AUD \$2.36 million. The projected estimate for 2007 is AUD \$2.57 million.
- This did not include Jetstar, QantasLink, Australian Airlines or Jetconnect.
- The cost analysis is consistent across the different QANTAS Group airline segments.
- Costs are allocated with due consideration of the individual airline's accountability for attributable costs

Some specific twin engine wildlife strike event costings



- Date: 27SEP2006
 - Port: ADL
 - Wildlife: Galahs
 - Aircraft: 737-800
 - Engine type: CFM56-7
 - Flight phase: Take-off
 - Event: Air Turn Back
 - P.O.B.: 146
 - Damage: Engine/airframe
 - Outcome: Major disruptions
 - Cost: > AUD\$180k
- Date: 03OCT2006
 - Port: MEL
 - Wildlife: Corellas
 - Aircraft: 767-300
 - Engine type: CF6-80C2
 - Flight phase: Take-off
 - Event: Nil
 - P.O.B.: 142
 - Damage: Engine
 - Outcome: Minor disruptions
 - Cost: > AUD\$125k

ACTUAL COSTS FOR TWO SPECIFIC QANTAS AIRLINES BIRDSTRIKE EVENTS: 27SEP2006 & 03OCT2006

Mitigating Actions



Mitigation Actions:

- **The QANTAS Group of airlines is continually working towards mitigating the threat of potential wildlife strikes to it's fleets by:**
- **Encouraging heightened awareness levels of Technical Crews to wildlife activity at airports;**
- **Gathering statistical information around events on a port-by-port basis;**
- **Ensuring accurate reporting of strikes, suspected strikes & near misses;**
- **Demonstrating an active involvement in the AAWHG;**
- **Active participation in individual Airport Authority wildlife management strategy meetings;**
- **Incorporation of aircraft modifications as a deterrent to wildlife, e.g. Pulselite;**
- **Open mind to other mitigators;**

QANTAS Objectives



- **To continuously work with stakeholders to enhance safety by reducing the risk of wildlife events**
- **To monitor individual airports strike data and to report on strike rates, raw event numbers and cost comparison bases**
- **To minimize the financial impact of wildlife strike events to the QANTAS Group**
- **To compare/share data with other operators and industry bodies (e.g. CASA), through active participation the AAWHG and representation at relevant committees and forums**



Conclusions



- **QANTAS**
 - has a safety priority which leverages off the AAWHG activities
 - uses tools to allocate costs to an entire event, not just engineering outcomes
 - is actively working with Airport Authorities and other operators reduce the risk of wildlife incidents
- It is in **everybody's interest** to implement effective Wildlife Management Strategies at all Australian Airports
- The **AAWHG** will be an effective tool to review and communicate key wildlife information

Reducing the Risk



ALL PARTS OF THE INDUSTRY



WORKING TOGETHER TO REDUCE THE RISK