



1 2016–17 outbound baggage outcomes



Baggage reports indicate that there were about 85,000 mishandled bags for departing international passengers in 2016–17.

Mishandled bags cost international airlines some \$25 million in additional expenditures in 2016–17. Transfer bags represent only about 8% of total bags but account for nearly half of all mishandled bags.

The financial incentives for all industry participants, including the airport operators, need to be brought into line with continuous improvement in service delivery to support improved outbound baggage performance.

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2 Melbourne Airport jet fuel demand and supply study



The Australian and Victorian Governments have begun BARA's requested jet fuel study.

A competitive and reliable supply of jet fuel is necessary to support a growing number of international flights to Melbourne Airport.

The study will be a positive contribution towards transparency for fuel supply arrangements, existing and future challenges and opportunities. BARA welcomes the opportunity to contribute and support the implementation of identified opportunities.

3 Increasing runway capacity



Innovative technologies offer the opportunity to increase the capacity of existing runways.

BARA supports initiatives that provide cost-effective ways of increasing airspace and airport capacity other than just relying on expanding physical infrastructure.

'Wake Watch' is one such potential opportunity. It closely monitors the turbulence of arriving and departing aircraft, which can support aviation safety and increase the capacity of existing runways. BARA supports developing this technology as a priority project.

4 Variable glide slope approaches



Modern aircraft can adjust their glide slope to minimise their noise output on approach.

New generation aircraft have the capability of reducing their perceived noise output on approach by between 19% and 57% compared with conventional practices.

BARA supports progressively applying improved aircraft operations, such as variable glide slope approaches, to the benefit of local communities, passengers and airlines.

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2016–17 outbound baggage outcomes

A core outcome for international passengers is that they can collect their bags when they arrive at their destination airport. ‘Mishandled’ bags impair the travel experience of affected passengers. In 2016–17, the estimated 85,000 mishandled bags also cost international airlines some \$25 million in additional operating expenditures. The airport operators, which do not suffer such costs, do not have the same financial incentive to deliver better baggage outcomes in partnership with airlines and ground handlers.

To foster a better understanding of industry performance, BARA with its supply partner Unisys Australia (Unisys) have invested in measuring the final outcomes for international passengers’ bags departing from Sydney, Melbourne, Brisbane and Perth airports. The Unisys data covers many airlines and over 60% of all departing international flights. The data is disaggregated by whether the bag was checked-in directly at the international terminal or transferred from a domestic or international flight.¹

This data provides important insights into the performance of Australia’s international aviation industry on a key passenger outcome. Over time, the data will be able to show whether the industry can maintain or improve service outcomes as it becomes further challenged by increasingly congested airport operations during the busy morning peak and holiday periods.

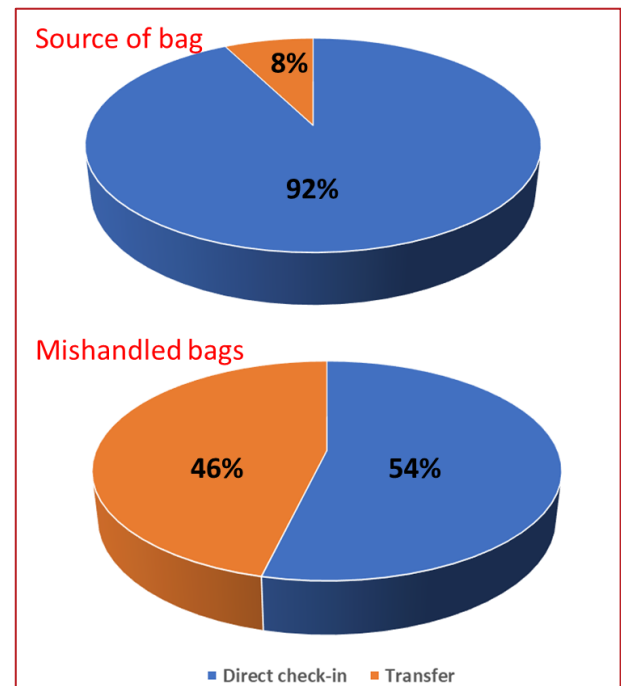
¹ A mishandled bag is one that is not on passenger’s flight and is delivered via a later flight. The data Unisys provided is for general information and Unisys does not represent or warrant the suitability of the data or information for any particular purpose.

Aggregate outcomes

For 2016–17, the estimated rate of mishandled bags was 3.9 per thousand or 1.5 per departing international flight. There is some variation in the average across the major international airports.

Most bags for departing international flights are directly checked-in by passengers at the international terminals. Transfer bags (from arriving domestic and international flights) accounted for only about 8%. These transfer bags, however, account for nearly half of all mishandled bags (Figure 1).²

Figure 1 Source and mishandled bags



Source: Unisys Australia

The rate of mishandled transfer bags is about 10 times that of direct check-in bags. Transfer bags are more complex, especially when across carriers and ground handlers. It requires sound procedures, infrastructure services and coordination between airlines, ground handlers and the airport operator.

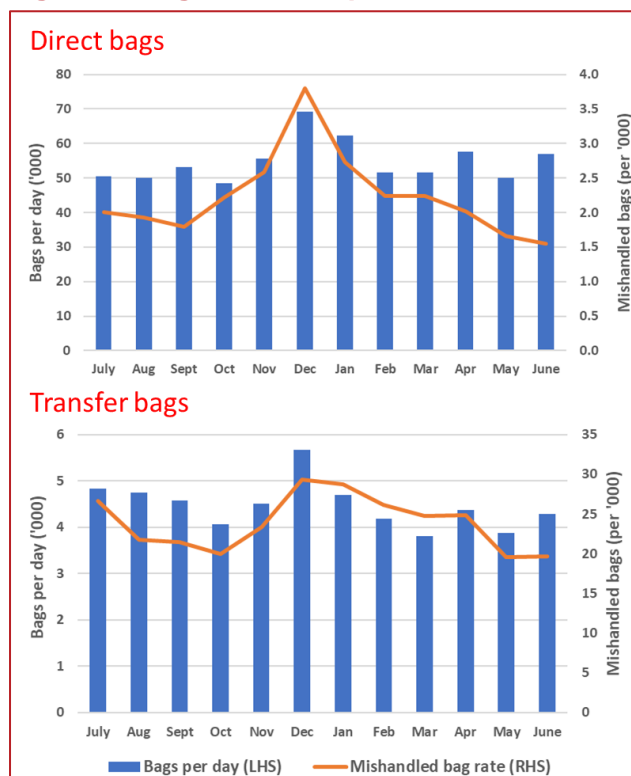
² This outcome for Australia is consistent with SITA’s *The Baggage Report 2017*, which found that globally 47% of mishandled bags were transfer bags.



Growth and mishandled bags

Outbound baggage outcomes deteriorate during the busy December-January months (Figure 2). The rate of mishandled bags over December-January is 5.1 per thousand compared to 3.6 per thousand for the other 10 months. That's an additional 6,600 mishandled bags.

Figure 2 Bag totals and performance



Source: BARA estimates

The data for each month suggests that, based on current systems and operating procedures, outbound baggage performance may deteriorate with ongoing growth in bag volumes. As the volumes of bags processed in the quieter months approach those of December-January, they bring the risk of rising mishandled baggage rates.

The data also indicates that Australia's major international airports are not well placed to handle greater complexity in passenger journeys. More complex journeys will likely involve greater numbers of transfer bags, which have far higher mishandled rates. This will drive up average mishandled bag rates.

Improved performance – incentives

In a commercial industry, participants can be expected to operate in line with the prevailing financial incentives. Airlines already have a \$25 million annual financial incentive to improve baggage outcomes. Passengers' diminished travel experience comes on top of these costs.

Reflecting this, airlines seek to negotiate agreements with suppliers that are in line with supporting good baggage outcomes. The agreement negotiated through BARA with Unisys for baggage security services contains service level commitments with financial consequences. This sound framework encourages cooperation and continuous improvement in service delivery.

The operators of the major international airports, however, are financially insulated from baggage outcomes under their agreements with international airlines. A rise in the rate of mishandled bags makes no dent in airport annual profits. With little to no 'financial skin in the game', even if the airport is reporting outcomes to airlines as part of its key performance indicator (KPI) regime, it lacks the same financial incentive as airlines to invest in its service delivery capability.

Airports' efforts to support international airline baggage outcomes are therefore largely discretionary. By comparison, BARA watches projects that drive 'increased passenger retail revenues' and 'airport company promotion' (to protect the profits delivered under light-handed economic regulation) that seem to receive the highest priority resourcing.

Projects that would help baggage outcomes for international passengers include: equal priority for baggage makeup space; improved maintenance of baggage systems; and tracking bags across handover points.

A move to more commercially balanced aeronautical service agreements would see the financial incentives for airport operators more in line with those of airlines and other providers in seeking improved baggage outcomes.



Variable glide slope approaches

Under conventional practices, arriving aircraft fly a constant glide slope (3 degrees) on approach to the runway. In all but still air conditions, maintaining this constant slope requires engine thrust. Enabled by satellite-based technology, new generation aircraft can adjust their glide slope to compensate for prevailing headwinds, allowing continuous 'idle thrust' approaches.

Evolving aircraft technologies and air navigation services can increase the efficiency of safe aircraft operations while delivering improved outcomes for communities. There is a need to progressively apply improved aircraft procedures as part of the ongoing modernisation of Australia's international aviation industry.

Variable glide slopes are one of the many benefits achievable under required navigation performance (RNP). RNP is a satellite-based technology that provides high levels of three-dimensional positional accuracy. This locational accuracy in turn allows for more efficient aircraft flight profiles.

Landing with a +15kn headwind

It is quite common (and safe) for aircraft to land at a major international airport into a 15–25 knot headwind. The efficiency of the aircraft's approach, however, has important noise output and fuel burn implications.

The International Civil Aviation Organization's (ICAO) analysis indicates that idle thrust approaches to runways can reduce noise by 3–12 decibels compared with conventional practices. It's estimated this reduces perceived noise by 19% to 57% for local communities under and surrounding the airport's approach path.

Application in Australia

With the ongoing redesign of Australian airspace architecture, RNP approaches are being deployed at Australia's major international airports. It is essential they are designed to deliver the best possible benefits (safety and efficiency) to industry and communities, including variable glide slope approaches.

At Sydney Airport, Airservices Australia's GPS landing system also offers the potential for variable glide slope approaches in reduced visibility conditions. BARA is encouraging this technology to be similarly applied at Melbourne and Brisbane airports.

Delivering better aircraft noise outcomes for local communities

