

# BAGGAGE REPORT 2010



**SITA**

Specialists in air transport communications and IT solutions

# Preface

No matter how you look at it, 2009 was a tough year for the Air Transport Industry (ATI). Passenger demand fell by 2.9% globally for the full year, from 2.27 billion passengers in 2008 to 2.21 billion passengers in 2009. The average load factor in 2009 was 75.6%,<sup>1</sup> compared to 75.9% in 2008,<sup>2</sup> and the industry ended 2009 with the largest-ever post-war decline<sup>3</sup>.

However, there was one bright spot. For the second consecutive year, the number of mishandled bags fell worldwide. In 2009, the industry reported just over 25 million mishandled bags globally<sup>4</sup> – down almost a quarter from 2008, and down 40% on 2007. That represents year-on-year savings to the ATI of US\$ 460 million, from a total cost of US\$ 2.96 billion in 2008<sup>5</sup> compared to US\$ 2.5 billion in 2009<sup>6</sup>. This is on top of US\$ 800 million in savings from 2007 to 2008.

Although some of the decline in mishandled bags can be attributed to fewer passengers travelling, the decline in passenger numbers (2.9%) is still far smaller than the decline in mishandled baggage (24%). Improvements in baggage handling systems and passengers checking fewer bags to avoid extra fees have also contributed to the overall decline.

Effective baggage management plays an important role in the overall passenger experience – and this means we need to get it right. For example, according to the 2009 SITA/Air Transport World (ATW) Passenger Self-Service Survey, more than 54% of passengers globally say that having their checked-in baggage arrive promptly and safely is an important part of a pleasant journey.<sup>7</sup>

That's why it's important that we continue to move towards comprehensive, fully-integrated baggage management solutions – which can direct, track and trace passenger baggage throughout the entire journey, from check-in to delivery at the final destination.



**Francesco Violante**

CEO, SITA

## What is a mishandled bag?

A mishandled bag is a report of a delayed, damaged and/or stolen bag, which is recorded by either an airline or its handling company on behalf of the passenger and which is handled as a claim.

## 2009 Baggage facts-at-a-glance<sup>28</sup>

- 2.2 billion enplaned passengers
- 25.025 million mishandled bags
- 11.375 mishandled bags per 1,000 passengers
- A 23.8% improvement over 2008
- Total cost of mishandled baggage to the ATI: US\$ 2.5 billion

## About SITA's Baggage Report 2010

Since 2005, SITA has produced an annual baggage report, which is designed to offer all Air Transport Industry (ATI) stakeholders the latest facts, figures and trends related to global baggage processing and management. In preparing this report, SITA works in close collaboration with industry partners – including the International Air Transport Association (IATA) – to ensure its facts, figures and analysis are as complete and accurate as possible. With help from these essential insights, ATI stakeholders can work together to improve baggage management all around the world – generating savings for the industry, while improving the overall passenger experience.

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# Executive summary

## Mishandled bags down 24% globally in 2009; ATI saved US\$ 460 million compared to 2008.

In 2009, the Air Transport Industry (ATI) reported 25.025 million mishandled bags globally – 11.375 mishandled bags for every 1,000 passengers<sup>8</sup>. This is down 23.8% (or 7.8 million bags) from 2008<sup>9</sup>, and more than 40% (or 17.4 million bags) down on the 2007 numbers<sup>10</sup>.

This improvement saved the industry some US\$ 460 million year on year. Nonetheless, lost and mishandled baggage still cost the ATI around US\$ 2.5 billion in 2009<sup>11</sup> – a sum it can't afford to lose in the current economic climate. The International Air Transport Agency (IATA) estimated total airline losses of US\$ 9.4 billion in 2009<sup>12</sup>, after losses of US\$ 16.8 billion in 2008<sup>13</sup>.

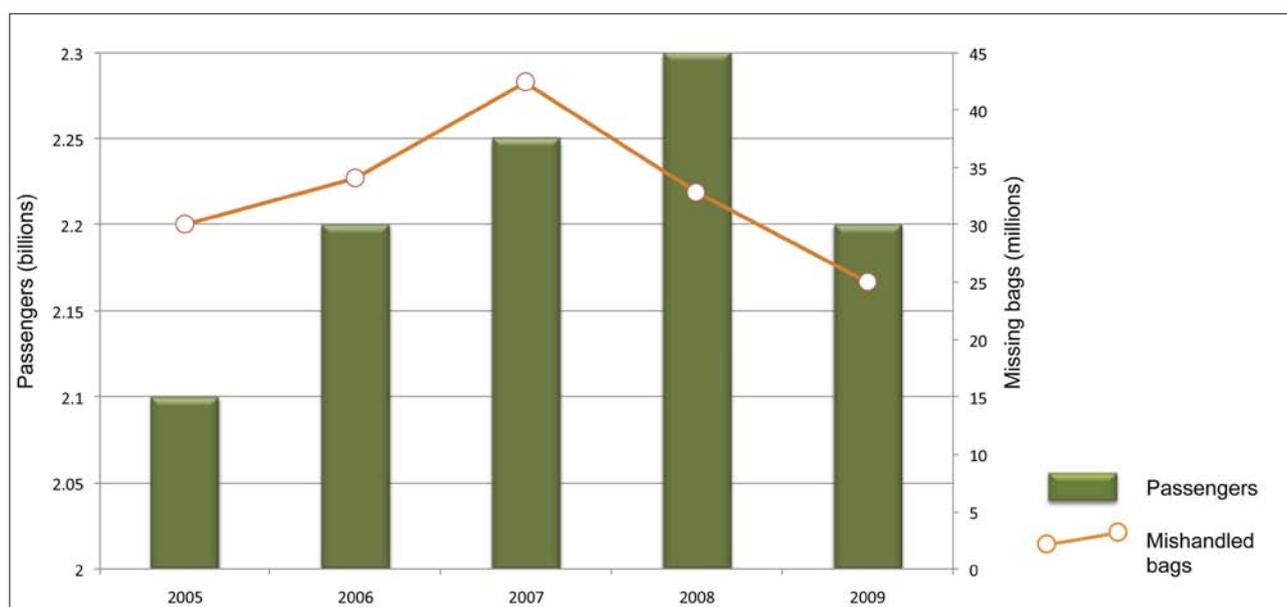
The number of bags which don't ever show up – because they are either lost or stolen – is far, far smaller, amounting to just 0.4 per thousand passengers in 2009<sup>14</sup>, or only 3.4% of the total number of bags mishandled. This is down from 0.57 in 2007<sup>15</sup>, but up slightly from 0.32 in 2008<sup>16</sup> – a minor increase, which is likely an anomaly, but still bears watching.

### Mishandled bags at-a-glance:

Year	Total passengers (bn)	Total bags mislabeled (m)	Total % bags damaged/pilfered	Total cost to the industry (bn USD)
2007	2.25	42	0.57	3.8
2008	2.27	32.8	0.32	2.96
2009	2.21	25.025	0.4	2.5

Source: WorldTracer database 2009

“While I’m truly heartened by the improvements over the last two years, there’s no doubt that we can do better,” said Francesco Violante, SITA’s CEO. “We need to constantly improve in order to lower costs, reduce baggage-related delays, improve the passenger experience and enhance the industry’s reputation. This will involve working together as an industry to develop comprehensive, integrated baggage-management solutions”.



## Why the drop in mishandled baggage?

After five consecutive years of increases, 2008 saw the total number of mishandled bags fall by more than 20% over the previous year, making 2009 the second consecutive year when the volume of mishandled baggage has fallen globally.

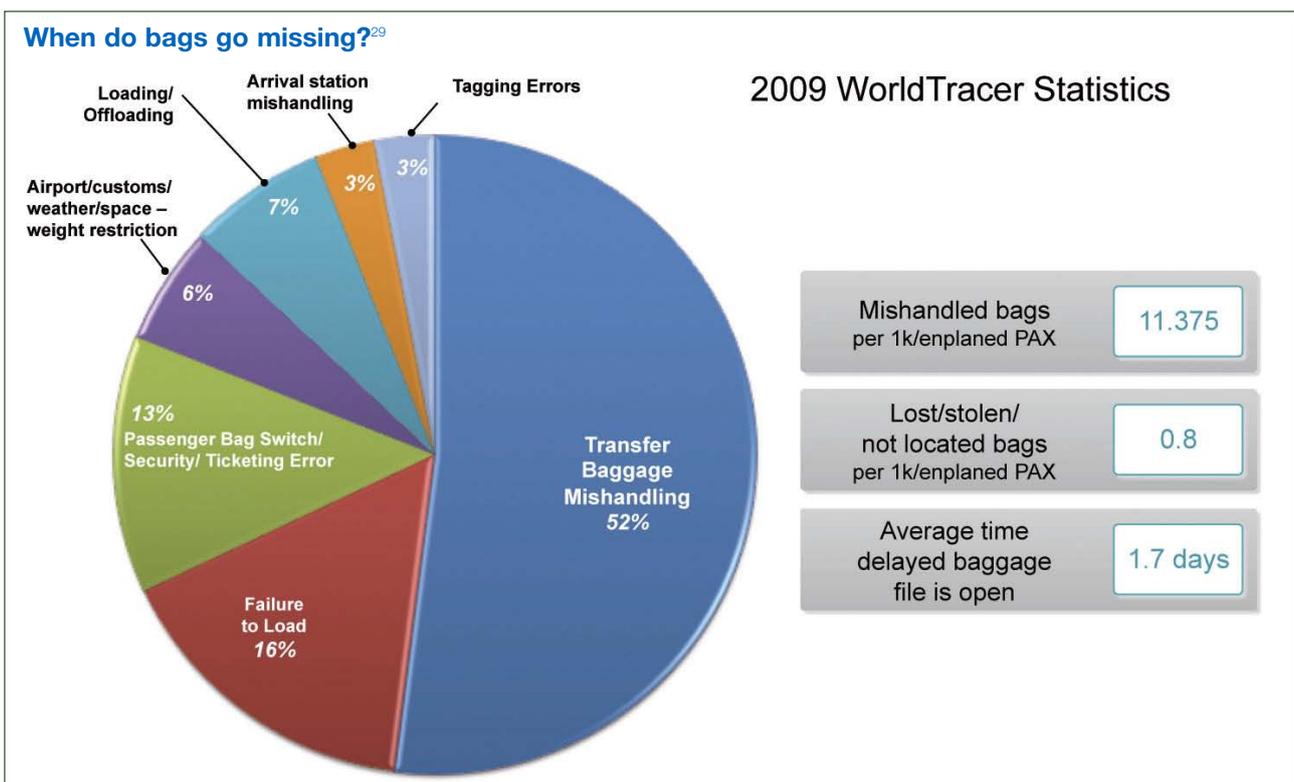
There are several factors that contributed to last year's decline:

- 1. Fewer people travelling.** As a result of the global economic crisis, the industry reported fewer travellers last year as compared to 2008, with numbers falling from 2.27 billion enplaned passengers to 2.21 billion<sup>17</sup>. Note, however, that the decline in passenger numbers (2.9%) is far smaller than the decline in mishandled baggage (24%).
- 2. Fewer people checking in bags in an attempt to avoid fees.** According to the 2009 SITA/ATW Passenger Self-Service Survey, the proportion of passengers checking in baggage has decreased from 82% in 2007 and 2008 to 75.7% in 2009<sup>18</sup>. This trend is especially noticeable in locations where airlines have started charging passengers for baggage.
- 3. Improvements in baggage handling systems.** As the cost of mishandled bags climbs – rising from an estimated US\$ 90 to US\$ 100 per bag between 2008 and 2009<sup>19</sup> – airline and airports have worked hard to improve baggage management.

For example, since 2008, Delta Air Lines has committed US\$ 150 million to improving its baggage service, especially in Atlanta, its largest hub<sup>20</sup>. The changes, which have included a new baggage system, new technology and improved processes, have reduced the airline's rate of mishandled bags from 5.98 reports per 1,000 passengers in 2008 to 4.89 reports in 2009, a decline of almost 20%<sup>21</sup>.

## 2009 global mishandled baggage statistics

In December 2008, Lisbon Airport became the latest airport to adopt Radio Frequency Identification (RFID) technology for baggage handling, following in the steps of earlier adopters such as Hong Kong International and Las Vegas Airports. Lisbon Airport puts RFID tags on all bags coming into the airport, including transfer bags, and aims to reduce mishandlings in this area. Transferring bags from one aircraft to another is the single biggest problem for baggage handlers, generating 52% of mishandled bags worldwide in 2009<sup>22</sup>.



Over the last three years, Lufthansa and Fraport, the airport operator for its Frankfurt hub, have undertaken efforts to better link data on the locations of aircraft and bags. On the tarmac, Fraport uses hand-held scanners to register each bag moving on or off a plane. Bags are scanned again when they enter the airport's automated sorting system.

Based on this constant flow of information, Fraport can locate passenger bags within seconds. This closer collaboration and constant scanning has cut the rate of mishandled bags in Frankfurt from 3.9% in 2006 to 1.4% in 2009<sup>23</sup>.

At the same time, the industry as a whole has focused on improvements in baggage processes and systems. For example, IATA's Baggage Improvement Programme, now in its second year, aims to cut baggage mishandling in half by 2012 through several initiatives including simplifying and improving baggage processes, linking systems to facilitate processing and identifying bags that need to be processed urgently. This is expected to generate annual savings to the industry of up to US\$ 1.9 billion<sup>24</sup>. (See case study on page 13).

Meanwhile, SITA's Integrated Baggage Management Solutions, which are developed with the whole ATI in mind, are designed to direct, track and trace passenger baggage throughout the entire journey, from check-in to final delivery at the destination. To date, more than 100 airports around the world have installed SITA's industry-leading baggage systems, including: Amsterdam, Beirut, Cairo, Chicago, Dusseldorf, Guangzhou, Helsinki, Hong Kong, Istanbul, Johannesburg, London Gatwick, Los Angeles, Moscow, Rome, Shanghai, Singapore and Toronto.

### **Effective baggage management matters to passengers too**

According to the 2009 SITA/ATW Passenger Self-Service Survey, 54.4% of passengers say having checked-in baggage arrive promptly and safely contributes to an enjoyable journey<sup>25</sup>. This is the fourth most important factor associated with a pleasant trip – after on-time departures and arrivals, friendly ground staff and short queues.

The 2010 North American Airport Satisfaction Study by JD Powers and Associates also puts quick delivery of baggage and ease of check-in and baggage check at the top of the list in terms of the areas of most impact to passengers. This ranks them as the top two most important factors, followed by comfort in terminals, and the length of time it takes to pass through security<sup>26</sup>.

At the same time, it is interesting to note that “receiving checked baggage promptly and safely” dropped two places in 2009 in the SITA survey. In SITA's 2007 and 2008 surveys, this factor was ranked as the second most important criterion associated with a pleasant trip. This drop in importance may well be linked to the decline in mishandled baggage over the past two years.

No matter what the rankings show, we know that effective baggage management is still very important to passengers. When asked what step of their journey passengers would like to change to make their travel experience more enjoyable, “waiting for checked baggage upon arrival” was the fourth most important factor – after security screening, time spent at the airport before a flight, and the inflight experience.

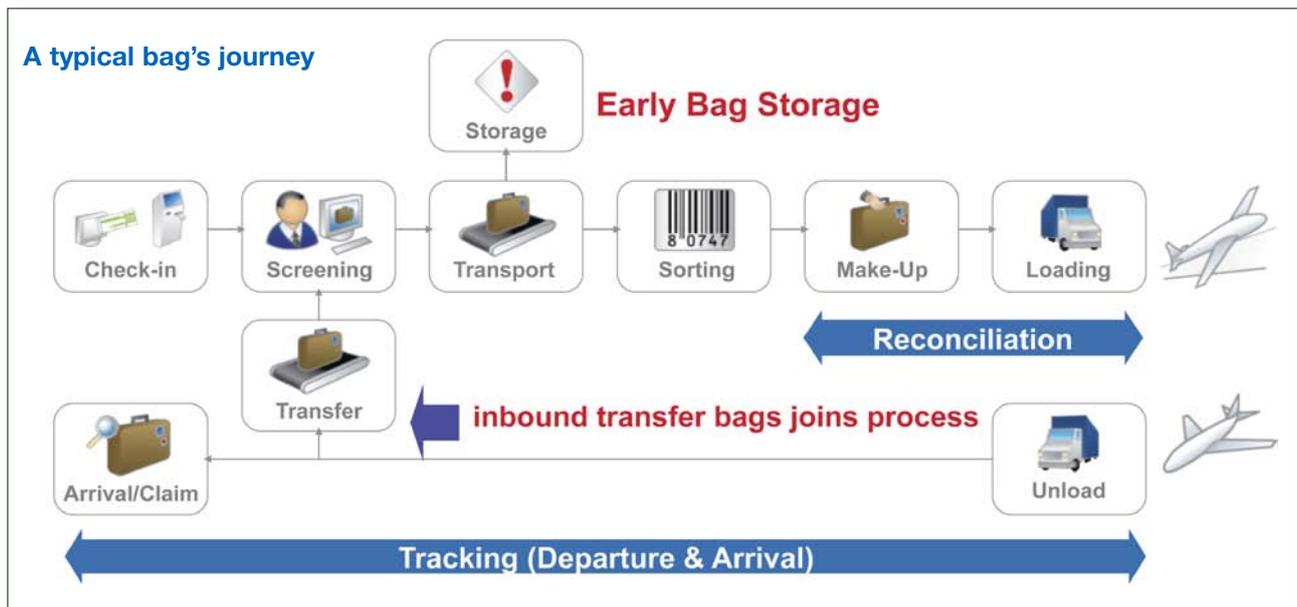
## Technology poised to transform baggage handling and management

From self-service baggage drop-off to kiosks to report delayed bags, to checking and communicating about the status of missing bags via mobile devices, technology is set to change the face of baggage handling and management worldwide.

### According to the SITA Airline IT Trends Survey 2009, by 2012<sup>27</sup>:

- 63% of airlines say they will implement self-service bag-tag printing
- 41% say they will use kiosks to report lost baggage
- 36% say they will offer unassisted bag drop locations

Many of these self-service options will be complemented by mobile technology, which will provide the possibility for travellers to track their bags throughout every stage of the journey. This will enable airlines and airports to save on overall operating costs, improve efficiency at the airport, and enhance the overall passenger experience.



## When bags never arrive

Just 3.4% of all mishandled bags in 2009 never arrived because they were either lost or stolen. This represents just 0.4 unrecovered bags for every 1,000 passengers, or under a million bags in total for over two billion passengers<sup>30</sup>.

Some lost bags are never matched with an existing claim – and are therefore held as unclaimed; in very rare instances, bags are stolen. Normally, after up to six months, unclaimed bags are salvaged, donated or destroyed, depending on governmental oversight. Although they are very rare, stolen bags are an issue that airlines, airports and industry security agencies continue to work hard to address.

# Trends watch

## Baggage self-service: coming to a kiosk near you

Over the past year, adoption of self-service facilities has grown by 20% globally, according to the 2009 SITA/ATW Passenger Self-Service Survey<sup>31</sup>. This is primarily because passengers increasingly see self-service facilities as an essential part of having a pleasant trip and avoiding queues.

Among passengers who do not use self-service check-in options, baggage remains the number one obstacle. In fact 30% cite baggage check-in as the main reason for avoiding self-service options, and more than 75% of passengers surveyed reported never having printed a bag tag from a kiosk<sup>32</sup>.

### According to the SITA/ATW survey<sup>33</sup>:

**56.9%** didn't see value of self-service check-in if they needed to go to an agent desk to drop their bags

**36.7%** say they didn't think it was possible to use self-service check-in when they had bags to check

**28.1%** said it was "too complicated" to use self-service check-in when they had bags to check

**17%** said they believed using self-service check-in increased the risks of not receiving their bags when they arrived at their destination

## Self-service well positioned for future growth

As passengers become more familiar with self-service technology they are more inclined to use it, rather than seeing it as an obstacle. In fact, according to the 2009 IATA Corporate Air Travel Survey, more than 50% of passengers worldwide want more self-service options<sup>34</sup>.

Based on the 2009 SITA/ATW Passenger Self-Service Survey, 60% of passengers said they would either frequently or intermittently use remote check-in and baggage drop-off services in the future, and 48% said they would use kiosks to report lost baggage claims<sup>35</sup>.

That's all good news for the ATI, which has plans to introduce a number of self-service baggage options over the next two years.

## Self-service technology continues to improve

Self-service baggage is not new; many airports and airlines around the world already have self-service kiosks and bag drops in place. However, as the technology continues to improve, self-service options for both baggage check-in and recovery have become simpler and faster for travellers.

For example, IATA's Fast Travel: Bags ready-to-go service enables passengers to use a self-service kiosk to print out their baggage tags and deliver their bags tagged and ready for acceptance by an airline agent. 23 airlines currently offer this service, which speeds up the check-in process for passengers travelling with baggage<sup>36</sup>.

In addition, last year, SITA began previewing the WorldTracer Kiosk, a self-service baggage recovery option which enables passengers to report delayed bags by scanning bar codes on their luggage tags. This will reduce the time it takes to report lost bags from an average of 45 minutes when waiting for an agent to less than two minutes using the kiosks<sup>37</sup>.

The service will also include a mobile option so travellers can track the status of delayed bags on their mobile phone, personal digital assistant or other mobile device.

# Lightening the load, while boosting ancillary revenue

With high fuel prices and a challenging economic crisis, most airlines would like to reduce their volumes of both checked and carry-on baggage. Aircraft carrying fewer bags burn less fuel, enjoy faster turnaround times and reduce their carbon footprint. And the fewer bags they carry, the less risk the airlines run of paying compensation for mishandled bags.

While the industry continues to encourage passengers to travel with fewer bags, many European and North American carriers continue to benefit from ancillary revenues related to baggage charges. In fact, according to AirlineForecasts, airlines collected US\$ 2.47 billion in baggage fees globally in the 12 months ending in September 2009<sup>38</sup>.

There's no doubt that these charges have impacted passenger behaviour. According to the 2009 SITA/ATW Passenger Self-Service Survey, the proportion of passengers checking in baggage has decreased from 82% in 2007 and 2008 to 76% in 2009<sup>39</sup>. This trend is especially noticeable in locations where airlines have started charging passengers extra for baggage.

## Charges for checked bags go mainstream

Although charging for checked baggage is a trend that originated with low cost carriers, full service airlines are catching up quickly – particularly in the US. In the third quarter of 2009 alone, the ten largest US carriers collected about US\$ 740 million in baggage fees, more than double the US\$ 350 million they collected in the third quarter of 2008, according to the US Bureau of Transportation Statistics<sup>40</sup>.

In fact, checked baggage is now the major ancillary revenue associated with aircraft operations, generating much more revenue than options such as pre-reserved seating and early boarding – but still substantially less than frequent flier programmes<sup>41</sup>.

## Mishandled baggage vs. checked baggage fees: a balancing act for airlines

Annual Revenue from Checked Baggage Per Passenger	Airline
\$5.81 (€4.36)	United (US domestic)
\$5.41 (€4.06)	Frontier
\$4.75 (€3.56)	easyJet
\$3.64 (€2.74)	Northwest (US domestic)

Based on financial disclosures by carriers and estimate of applicable traffic and revenue.

Source: IdeaWorks Guide to Ancillary and a la carte Pricing

## Sample checked baggage charges by airline (coach class) Q1 2010

Airline	Fees for first bag (US\$) (one-way)	Fees for second bag (US\$) (one-way)
Air France*****	Free	\$50 or €50, depending on your country of departure. (20% discount when you pay online)
American Airlines*	\$25	\$35
Continental Airlines*	\$23-25 (discount when you pre-pay online online)	\$32-35 ( discount when you pre-pay online)
Delta Air Lines/Northwest Airlines* online)	\$23-25 (discount when you pre-pay online)	\$32-35 (discount when you pre-pay online)
Emirates*****	Free	Free
Japan Airlines*****	Free	Free
Ryanair***	\$20.50	\$48
Southwest Airlines*	Free	Free
United Airlines*	\$20-25 (discount when you pay online)	\$30-35 (discount when you pay online)
US Airways*	\$23-25 (discount when you pay online)	\$32-35 (discount when you pay online)
Virgin Blue****	\$7.32 (\$8 Australian dollars) when you prepay online. \$18.29 (20 Australian dollars) when you pay at the airport.	N/A

Sources:

\*<http://www.farecompare.com> as of Jan. 18, 2010

\*\*<http://www.airfarewatchdog.com/>

\*\*\* Company website

\*\*\*\*[http://budgettravel.about.com/od/airfarescruises/tp/budget\\_bagfees.htm](http://budgettravel.about.com/od/airfarescruises/tp/budget_bagfees.htm)

\*\*\*\*\*[http://budgettravel.about.com/od/airfarescruises/tp/majors\\_bagfees.htm](http://budgettravel.about.com/od/airfarescruises/tp/majors_bagfees.htm)

\*\*\*\*\*<http://www.oag.com/oag/website/com/en/Home/Travel+Magazine/Executive+Travel/News+Briefing/Checked+Baggage+Fees>.

## US baggage charges go international

US-based baggage charges are beginning to spread from the domestic market to international routes. For example, Delta Air Lines expects to earn US\$ 100 million (€75 million) annually from a new US\$ 50 fee for checking a second bag on international flights. Quickly following suit, Continental Airlines and US Airways have also announced US\$ 50 fees on transatlantic flights<sup>42</sup>.

As checked baggage fees cross borders, they will also begin to impact US carriers' alliance partners, such as Air France/KLM, Lufthansa or Japan Airlines.

## Other approaches to checked baggage charges

Not everyone is convinced that charging for checked bags is the way to go. For example, as part of its competitive strategy, Southwest Airlines has decided not to charge for either the first or second bag.

Said Southwest's CEO, Gary Kelly: "The potential from charging baggage fees is at most 5% of revenue, and it's not a reach to say we are getting that much more from not charging"<sup>43</sup>.

Meanwhile, Alaska Airlines and sister company Horizon Air, which do charge checked-baggage fees, have established a baggage guarantee. If a bag does not arrive at the carousel within 25 minutes of landing, the passenger receives a choice of either US\$ 25 or 25,000 frequent flyer miles – essentially a rebate on their checked baggage fees<sup>44</sup>.

**Baggage? What baggage?** Michael O’Leary, CEO of Ryanair, Europe’s largest low-cost airline and a pioneer in ancillary revenue, says the airline is considering an entirely new approach to baggage management. “We’re going to move away from check-in luggage to more carry-on luggage”<sup>45</sup>.

By October 2010, Ryanair says it will prohibit all check-in luggage and instead allow travellers to bring unlimited carry-on baggage free of charge, subject to industry regulations. Baggage would be checked into the cargo hold at the stairs of the aircraft and distributed again as passengers disembark. The company expects to save US\$ 28 million annually from this initiative<sup>46</sup>.

#### **Taking the load off the airlines**

With many airlines charging fees for checked baggage and growing complexities around the number, size and type of baggage that can be checked-in on a given airline or aircraft, some passengers are bypassing the airlines altogether and shipping luggage directly to their destination via door-to-door luggage shipping companies<sup>47</sup>.

Although it’s difficult to find exact statistics on this trend, the increasing number of firms offering these services is a testament to their growing popularity.

In most cases, luggage shipping services are still more expensive than shipping via the airlines – depending on the destination, how quickly bags need to be delivered and their overall size and weight. For example, delivery of a small bag (less than 25 pounds) on a New York to Los Angeles round-trip flight can cost anywhere from US\$ 90.94 to US\$ 428.48 if you want it overnight<sup>48</sup>.

However as airlines establish, and in some cases, raise fees on checked baggage, this is a trend to watch.

# Going mobile

Mobility continues to play a major theme in the ATI with 88% of all travellers and 93% of business travellers carrying a mobile phone<sup>49</sup>. It's therefore no surprise that mobile services are set to become a channel of choice for passenger services, complementing the existing self-service options, such as self-service kiosks to report missing bags<sup>50</sup>.

For example, in December 2009, Malaysia Airlines launched MHmobile – flymas.mobi – a comprehensive menu of mobile phone functionality available to airline passengers anywhere in the world. Among other features, it enables passengers to check the status of delayed bags by linking to SITA's WorldTracer, the industry-standard, fully-automated system for tracing lost and mishandled passenger baggage<sup>51</sup>.

Some airlines and airports also offer baggage tracing programmes that send SMS messages to passengers if their bags have not arrived on their flight, and continue to provide regular SMS updates until the bag shows up on their doorstep.

These are all services that passengers seem happy to embrace. According to the 2009 SITA/ATW Passenger Self-Service Survey, 18% of passengers have already registered to receive SMS notification services for travel-related information and 57% say they will do so in the future<sup>52</sup>.

This is good news for the ATI, particularly airlines, which have shown a strong ambition to increase the adoption and availability of mobile services for passengers. At the same time, many airlines are also preparing to launch new mobility services for staff in areas including baggage handling<sup>53</sup>.

## **Tagging companies offer 'safety net' for lost luggage**

The last few years have also seen growth in non-airline "tagging" companies, which provide permanent ID labels for luggage. Using unique serial numbers, bar codes or other technology to identify a particular bag, these companies help reunite owners with their bags in the event that bags are mishandled.

Most of these companies position themselves both as extra protection against lost luggage and as an added safety feature because passengers using their services don't need to display personal information on their luggage.

Some companies use sophisticated tagging and tracking technology to provide permanent "smart labels" that passengers attach to their luggage. If a bag is mishandled, the luggage finder can get in touch with the company, who will notify the passenger via SMS and arrange for the bag to be returned. Basic subscriptions to such services cost as little as US\$ 20 a year.

# Case study

## **Making a difference on the ground: Baggage Improvement Programme BIP@CDG**

At the end of 2008, the IATA Baggage Improvement Programme (BIP) team paid a diagnostic visit to Charles de Gaulle (CDG) Terminal 2 with the support of Air France.

CDG is a complex airport with many baggage systems which require a high degree of logistics and management. To manage that complexity, Air France had already implemented a track and trace solution with many tracking points along the baggage process to enable visibility throughout the system.

**During the diagnostic visit, the team identified more than 30 issues, of which Air France has selected 24 for implementation, including:**

- centralizing the management of local departure, transfer and arrival activities
- improving the response to baggage system maintenance issues
- training the check-in agents by:
  - applying strict rules for cut-off times when accepting baggage
  - ensuring that the airline acceptance times between flights are respected if passengers are rerouted
- ensuring greater control of out-of-gauge (bulky) baggage processes.

**Additional solutions, which have already been implemented, include:**

- employing RFID technology to improve the track and trace system
- developing new tools to help decision-making in baggage flow management using track and trace data
- improving the baggage data warehouse for better production control
- enhancing coordination between stations by sharing baggage issues and solutions
- Air France has also increased the minimum connecting time (MCT) at CDG.

Despite a stable baggage volume at CDG, after taking BIP and Air France solutions into account, the airline experienced a 40% improvement in baggage performance during the 4th quarter of 2009 as compared to 2008<sup>54</sup>.

## **About the IATA BIP**

IATA's BIP proposes solutions that aim to cut baggage mishandling in half by 2012 – generating annual savings to the industry of US\$ 1 billion to US\$ 1.9 billion, depending on the number of issues each BIP participant decides to address.

After eight pilots in 2008, the BIP team launched the programme with 25 airport diagnostic visits in 2009. These airports represent approximately 28% of mishandling files. To date, BIP solutions have addressed an average of 90% of the mishandling identified at these airports, proving the programme's methodology and its solutions toolkit<sup>55</sup>.

"With each visit, the BIP toolkit was strengthened to reflect the experience of the airport," explains Andrew Price, Assistant Director, Baggage and BIP. "After visiting 33 airports, we now have built up a toolkit of more than 60 solutions that the industry can use to reduce mishandling at airports of varying size and complexity".

BIP is now bringing that toolkit to a wider audience with the launch of its self-help programme in 2010. The diagnostic visits will reach 80 airports by 2012 – but BIP needs to reach out to 200 airports to realize its vision of cutting mishandling in half "It isn't possible to visit every airport," adds Price, "so the self-help approach aims to bring the benefit of BIP to more airports and airlines."

**The self-help approach consists of three phases:**

- Phase 1: forming a team composed of airports, airlines and ground handlers, who work through a BIP self-help guide
- Phase 2: executing the exercises in the guide, identifying issues and determining the solutions to implement
- Phase 3: reporting on improvements gained by adopting solutions from the toolkit.

To take part in the BIP, airports and airlines can contact their local IATA Country Manager or the team at [bip@iata.org](mailto:bip@iata.org).

# Baggage statistics

## United States

In the United States, the number of missing bags on arrival rose inexorably from 2002 to 2007, but then fell sharply in 2008 and 2009 to return to a level very close to when comprehensive records began in 2002.

	Enplaned Passengers	Bags delayed on arrival	Missing bags per 1,000 passengers	Percentage increase
2002	471,352,000	1,807,977	3.84	
2003	524,515,000	2,199,011	4.19	+9.1%
2004	575,364,000	2,822,364	4.91	+17.2%
2005	589,675,000	3,562,132	6.04	+23.0%
2006	605,064,000	4,070,614	6.73	+11.4%
2007	624,700,000	4,403,741	7.05	+4.8%
2008	595,818,000	3,135,946	5.26	-25.4%
2009	561,357,000	2,193,711	3.91	-25.7%

Source: The Aviation Consumer Protection Division, US Department of Transportation – see: <http://airconsumer.ost.dot.gov/reports/index.htm>

Note: US numbers reported do not include passengers connecting over international gateways travelling into America, and are therefore lower than European numbers reported.

## Europe

Over the past two years, Europe has seen continuous improvement in the number of missing bags per 1,000 passengers. The number of mishandled bags fell by 15.5% from 2007 to 2008 and declined by an additional 24.4% from 2008 to 2009. Overall results for 2009 would have been even better had it not been for wide-spread adverse weather and baggage handler strikes in December 2009.

Year	Missing bags per 1,000 passengers
2004	13.7
2005	14.1
2006	15.7
2007	16.6
2008	14.1
2009	10.8

Source: Association of European Airlines

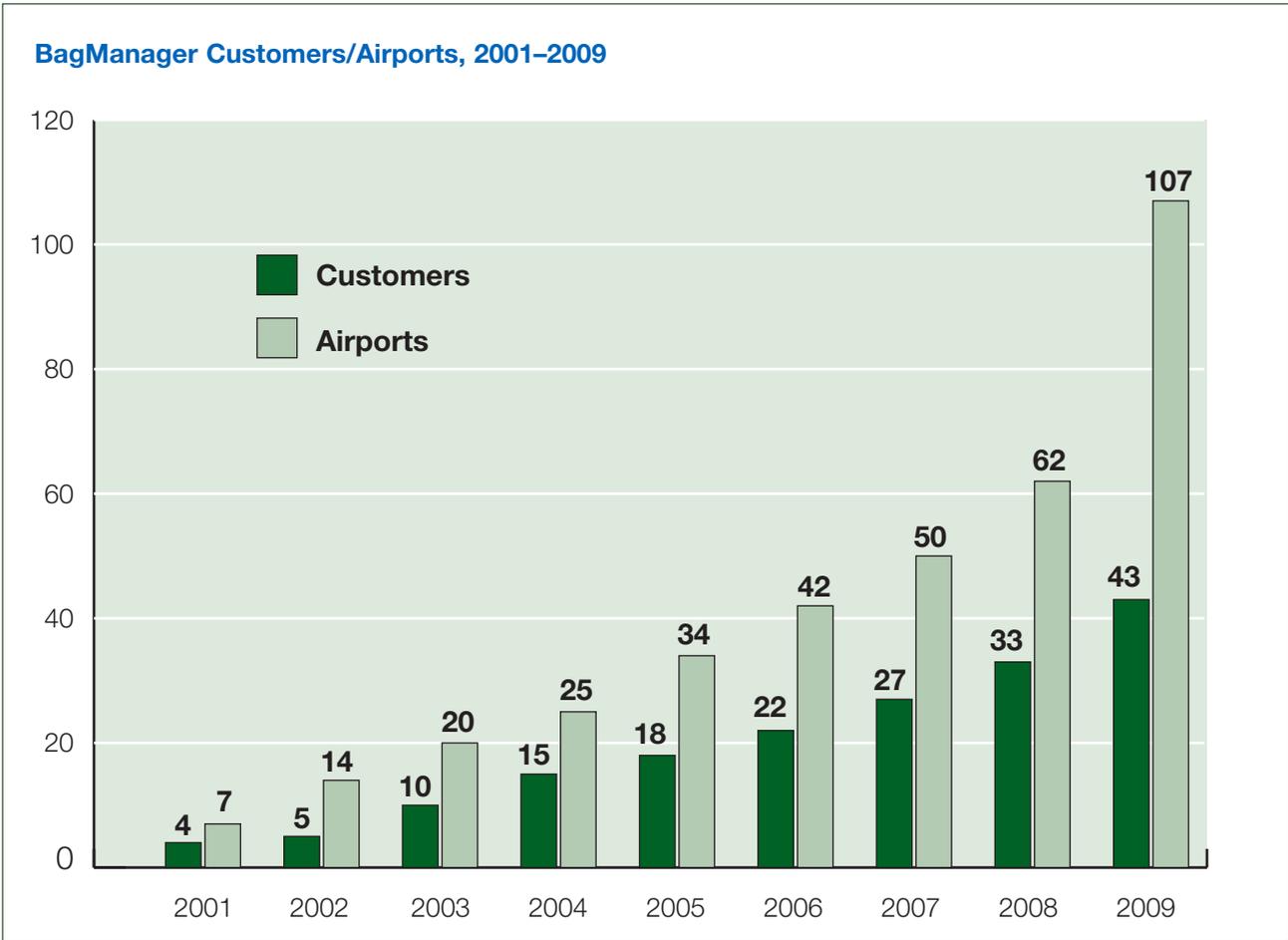
Industry solutions, such as SITA's Integrated Baggage Management Solutions, can decrease the number of mishandled bags by directing, tracking and tracing passenger baggage throughout the entire journey, from check-in to final delivery at the destination. This in turn can help improve the customer experience while providing real cost savings for the airlines.

Since 1990, SITA has been the recognized leader in baggage management worldwide offering the air transport industry's most advanced integrated baggage management solution – including both barcode and state-of-the-art RFID tagging. According to IATA, RFID tagging is expected to generate US\$ 760 million in annual savings<sup>66</sup>.

# The world's leading baggage management solutions

SITA's Baggage Management services use highly redundant IP-based global links to direct, track and trace passenger baggage throughout the journey – from check-in to final destination. This saves valuable time and money for the more than 100 airports and 400 airlines worldwide which already use the solution.

One of the key components of SITA's Integrated Baggage Management Solution is BagManager. This baggage reconciliation service positively matches bags with departing passengers and tracks bags from the point of tagging either on or off the airport. BagManager is now used at over 100 airports worldwide (see chart).



# Conclusion

With one of the worst financial years in the ATI's history now in the past, the industry still faces many challenges. Key among these is improving baggage management solutions. Not only will this save the industry money in unnecessary fees, it will also help improve the ATI's reputation while enhancing the overall passenger experience.

One of the key enablers in facilitating these improvements is technology – from new self-service options for baggage drop off and reporting lost bags to mobility services, which will help passengers keep tabs on their bags and better control their entire journey.

Given the industry's challenging financial situation, it's more important than ever that the ATI collaborates to develop comprehensive, integrated baggage-management systems that benefit all industry stakeholders.

# About SITA

We are the world's leading specialists in air transport communications and IT solutions. We deliver and manage business solutions for airline, airport, GDS, government and other customers over the world's most extensive network, which forms the communications backbone of the global air transport industry.

Created and owned by the air transport community, SITA is the community's dedicated partner for information and communications technology. As a team of industry experts, our know-how is based on working with customers across the global air transport community. Almost every airline and airport in the world does business with SITA.

SITA innovates collaboratively with the air transport industry, and the industry itself drives the company's portfolio and strategic direction. Our portfolio includes managed global communications, infrastructure and outsourcing services, as well as services for airline commercial management, passenger operations, flight operations, aircraft operations, air-to-ground communications, airport management and operations, baggage operations, transportation security and border management, cargo operations and more.

With a customer service team of over 1,700 staff around the world, we invest significantly in achieving best-in-class customer service, providing integrated local and global support for both our communications and IT application services.

We have two main subsidiaries: OnAir, which is the leading provider of in-flight connectivity, and CHAMP Cargosystems, the world's only IT company dedicated solely to air cargo. We also operate two joint ventures providing services to the air transport community: Aviareto for aircraft asset management and CertiPath for secure electronic identity management. In addition, we sponsor .aero, the Internet top level domain reserved exclusively for aviation.

We are one of world's most international companies. Our global reach is based on local presence, with services for over 550 air transport industry members and 3,200 customers in over 200 countries and territories. In 2009, SITA celebrated 60 years in business. Set up in 1949 with 11 member airlines, today we employ people of more than 140 nationalities, speaking over 70 different languages. SITA had consolidated revenues of over US\$1.47 billion (€1.13 billion) in 2008.

For further information go to [www.sita.aero](http://www.sita.aero)

# Notes and references

**Note 1, Page 2:** [www.iata.org/pressroom/pr/2010-01-27-01.htm](http://www.iata.org/pressroom/pr/2010-01-27-01.htm)

**Note 2, Page 2:** <http://www.iata.org/pressroom/pr/2009-01-29-01.htm>

**Note 3, Page 2:** [www.iata.org/pressroom/pr/2010-01-27-01.htm](http://www.iata.org/pressroom/pr/2010-01-27-01.htm)

**Note 4, Page 2:** Based on 2009 estimates from WorldTracer, the industry-standard, fully-automated system for tracing lost and mishandled passenger baggage. This was calculated as follows: 2.2 billion enplaned passengers with a global total of 11.375 bags per thousand passengers mishandled = 25.025 million bags.

**Note 5, Page 2:** <http://www.sita.aero/knowledge-innovation/knowledge/industry-surveys-reports/baggage-report-2009>

**Note 6, Page 2:** World Tracer database 2009: 25.025 million mishandled bags at an average cost of US\$ 100 per bag.

**Note 7, Page 2:** 2009 SITA/ATW Passenger Self-Service Survey

**Note 8, Page 4:** WorldTracer database 2009 – 10.575 bags per thousand passengers mishandled + 0.8 bags per thousand passengers damaged / pilfered etc = 11.375 bags per thousand passengers mishandled or damaged.

**Note 9, Page 4:** <http://www.sita.aero/knowledge-innovation/knowledge/industry-surveys-reports/baggage-report-2009>

**Note 10, Page 4:** <http://www.sita.aero/knowledge-innovation/knowledge/industry-surveys-reports/baggage-report-2008>

**Note 11, Page 4:** World Tracer database 2009: 25.025 million mishandled bags at an average cost of US\$ 100 per bag.

**Note 12, Page 4:** <http://www.iata.org/pressroom/pr/2010-03-11-01.htm>

**Note 13, Page 4:** <http://www.iata.org/NR/rdonlyres/FB26BE30-7500-41F2-AB3E7ACE49B7CD86/0/FactSheetIndustryFactsFEB10.pdf>

**Note 14, Page 4:** World Tracer database 2009

**Note 15, Page 4:** <http://www.sita.aero/knowledge-innovation/knowledge/industry-surveys-reports/baggage-report-2008>

**Note 16, Page 4:** <http://www.sita.aero/knowledge-innovation/knowledge/industry-surveys-reports/baggage-report-2009>

**Note 17, Page 5:** WorldTracer database 2009

**Note 18, Page 5:** 2009 SITA/ATW Passenger Self-Service Survey

**Note 19, Page 5:** 2009 SITA/ATW Passenger Self-Service Survey

**Note 20, Page 5:** [http://www.mobile-tech today.com/story.xhtml?story\\_id=010000X94KZY&page=2&full\\_skip=1](http://www.mobile-tech today.com/story.xhtml?story_id=010000X94KZY&page=2&full_skip=1)

**Note 21, Page 5:** [http://www.mobile-tech today.com/story.xhtml?story\\_id=010000X94KZY&page=2&full\\_skip=1](http://www.mobile-tech today.com/story.xhtml?story_id=010000X94KZY&page=2&full_skip=1)

**Note 22, Page 5:** WorldTracer database 2009

**Note 23, Page 6:** <http://online.wsj.com/article/SB125426756348250917.html>

**Note 24, Page 6:** 2009 SITA Baggage Report and <http://www.iata.org/NR/rdonlyres/5987B581-FE16-4410-879A-E2F370290C25/0/BIPStrategyPaper2009Final.pdf>

**Note 25, Page 6:** 2009 SITA/ATW Passenger Self-Service Survey

**Note 26, Page 6:** Airports, Feb 23, 2010

**Note 27, Page 7:** SITA Airline IT Trends Survey 2009

**Note 28, Page 2:** WorldTracer database 2009

**Note 29, Page 5:** WorldTracer database 2009

**Note 30, Page 7:** WorldTracer database 2009

**Note 31, Page 8:** 2009 SITA/ATW Passenger Self-Service Survey

**Note 32, Page 8:** 2009 SITA/ATW Passenger Self-Service Survey

**Note 33, Page 8:** 2009 SITA/ATW Passenger Self-Service Survey

**Note 34, Page 8:** <http://www.iata.org/stb/fast-travel/>

**Note 35, Page 8:** 2009 SITA/ATW Passenger Self-Service Survey

**Note 36, Page 8:** <http://www.iata.org/stb/fast-travel/bags-ready-to-go.htm>

**Note 37, Page 8:** <http://online.wsj.com/article/SB10001424052970204556804574259892408445768.html>

**Note 38, Page 9:** [http://www.mobile-tech-today.com/story.xhtml?story\\_id=010000X94KZY&full\\_skip=1](http://www.mobile-tech-today.com/story.xhtml?story_id=010000X94KZY&full_skip=1)

**Note 39, Page 9:** 2009 SITA/ATW Passenger Self-Service Survey

**Note 40, Page 9:** [http://www.bts.gov/programs/airline\\_information/](http://www.bts.gov/programs/airline_information/)

**Note 41, Page 9:** IdeaWorks Guide to Ancillary and a la carte Pricing

**Note 42, Page 10:** IdeaWorks Guide to Ancillary and a la carte Pricing

**Note 43, Page 10:** <http://www.smartmoney.com/investing/stocks/q-a-with-southwest-airlines-ceo-gary-kelly/>

**Note 44, Page 11:** [http://www.mobile-tech-today.com/story.xhtml?story\\_id=010000X94KZY&full\\_skip=1](http://www.mobile-tech-today.com/story.xhtml?story_id=010000X94KZY&full_skip=1)

**Note 45, Page 11:** Source: [http://www.bloomberg.com/apps/news?pid=20601087&sid=ad\\_1t6Mslq4M](http://www.bloomberg.com/apps/news?pid=20601087&sid=ad_1t6Mslq4M)

**Note 46, Page 11:** <http://travelsentry.blogspot.com/2009/06/ryanair-moves-to-no-checked-baggage-no.html>

**Note 47, Page 11:** Pittsburgh Tribune Review, January 22, 2010

**Note 48, Page 11:** [http://www.seatguru.com/articles/luggage\\_shipping\\_services.php](http://www.seatguru.com/articles/luggage_shipping_services.php)

**Note 49, Page 12:** 2009 SITA/ATW Passenger Self-Service Survey

**Note 50, Page 12:** SITA Airline IT Trends Survey 2009

**Note 51, Page 12:** <http://www.sita.aero/content/malaysia-airlines-goes-mobile-with-sita>

**Note 52, Page 12:** 2009 SITA/ATW Passenger Self-Service Survey

**Note 53, Page 12:** SITA Airline IT Trends Survey 2009

**Note 54, Page 13:** IATA Baggage Improvement Programme ([www.iata.org/bip](http://www.iata.org/bip))

**Note 55, Page 13:** IATA Baggage Improvement Programme

**Note 56, Page 14:** <http://www.iata.org/NR/rdonlyres/899CB011-297E-4DCF-9D8D-5523B9245EEE/0/RFIDposition.pdf>



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