

# CIS, Latin America Accident Rates Worsen

**Runway excursions represented a fourth of all accidents worldwide.**

BY RICK DARBY

Operators based in the Commonwealth of Independent States (CIS) and in the Latin America and the Caribbean region had the highest regional accident rates in 2008. They also had the greatest increases in accident rates compared with 2007, according to the International Air Transport Association (IATA) safety report for 2008.<sup>1</sup>

The IATA Africa region, comprising sub-Saharan states, had the highest proportion of fatal accidents relative to all commercial air transport accidents — 43 percent of accidents in the region involved fatalities. The Middle East and North Africa region almost matched Africa, at 42 percent.<sup>2</sup> The CIS accidents included 30 percent with fatalities; 26 percent of the accidents in Latin America and the Caribbean involved fatalities.<sup>3</sup>

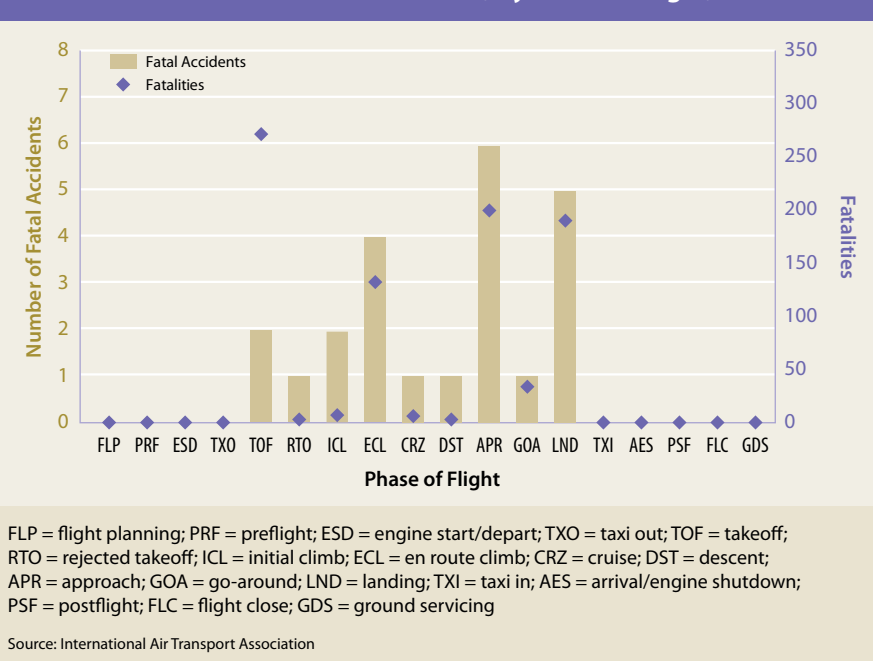
Europe had the smallest proportion of fatal accidents in the developed world, 6 percent. For North America, the figure was 17 percent.

The distribution of accidents by phase of flight was fairly consistent

across regions; typically, approach and landing predominated (Figure 1), and 43 percent of accidents occurred during landing. The breakdown according to accident category, however, varied considerably by region.<sup>4</sup>

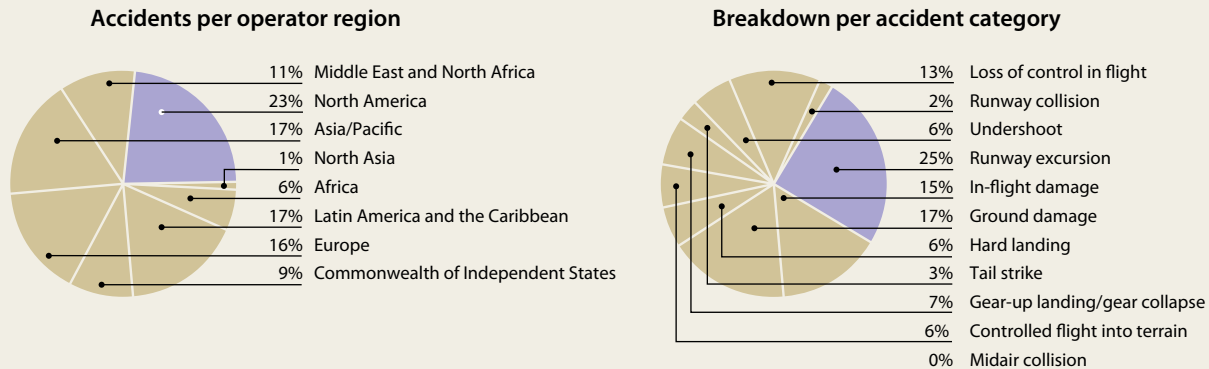
For 2008 overall, runway excursions represented the largest accident category, at 25 percent of all accidents (Figure 2, p. 48). In Africa, runway excursions accounted for 58 percent of accidents. In Latin America and the

**Worldwide Fatal Accidents and Fatalities, by Phase of Flight, 2008**



**Figure 1**

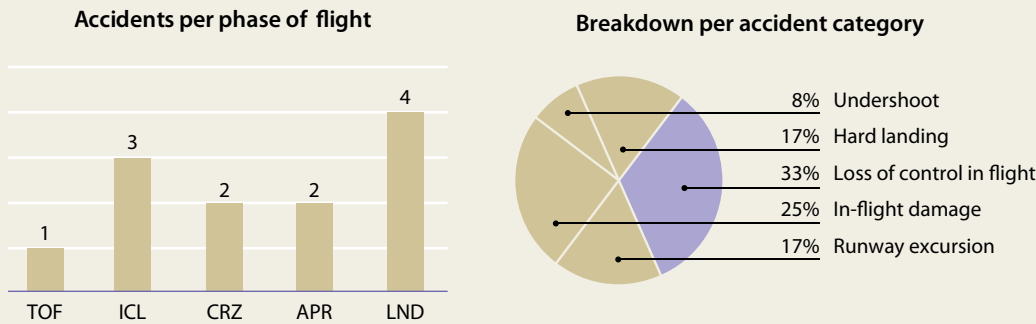
Worldwide Accidents, by Operator Region and Category, 2008



**Note:** Regions and accident categories are defined by the International Air Transport Association. The category with the highest percentage is shown in purple.  
Source: International Air Transport Association

Figure 2

Middle East and North Africa Accidents, by Phase of Flight and Category, 2008



TOF = takeoff; ICL = initial climb; CRZ = cruise; APR = approach; LND = landing  
**Note:** Regions and accident categories are defined by the International Air Transport Association. The category with the highest percentage is shown in purple.  
Source: International Air Transport Association

Figure 3

Caribbean, the figure was 31 percent; in Europe, 29 percent. Among all regions, 14 percent of runway excursions resulted in fatalities.

There were 18 ground damage accidents, none fatal. Nevertheless, the report says, “Ground damage was the second most predominant type of accident, following runway excursions.” The rate was highest in Asia/Pacific, at 2.66 per million sectors for all aircraft types. None was recorded in the category for North America.

In the Middle East and North Africa, 33 percent of accidents were categorized as loss

of control in flight (Figure 3). In the CIS, the proportion was 30 percent (Figure 4). In contrast, 5 percent of accidents in Asia/Pacific involved loss of control in flight.

Controlled flight into terrain (CFIT) — for many years the leading cause of accidental death in Western-built large commercial jet operations and now second, behind loss of control

— was absent in the year’s accident toll in Europe, and the Middle East and North Africa. In Latin America and the Caribbean, 31 percent of accidents were CFIT; in the CIS, 10 percent.

For Western-built cargo jets, accidents occurred at a rate of 3.33 per 1,000 aircraft in 2008, compared with 2.69 per 1,000 Western-built passenger jets. For Western-built turboprops, the corresponding rates were 5.74 per 1,000 for cargo airplanes and 4.10 for passenger airplanes. In the 34 cargo aircraft accidents, in-flight damage — which included weather-related events, technical failures, bird strikes and smoke/fire/

fumes events — was the most frequent category at 21 percent, closely followed by loss of control in flight and runway excursion (Figure 5).

Thirty accidents were described as cabin safety-related, involving factors such as passenger evacuation, decompression and on-board fire.

The fatality rate for all cabin safety-related accidents was 20 percent. Runway excursions constituted 48 percent, and no other category accounted for more than 13 percent. Sorted by phase of flight, the landing phase had the highest rate, at 16 per million sectors for all aircraft types.

Rates of cabin safety-related accidents were highest in Latin America and the Caribbean, followed by the Middle East and North Africa (Figure 6, p. 50).

IATA's Accident Classification Task Force (ACTF) "with the benefit of hindsight, determines actions or measures that could have been taken to prevent an accident," the report says. "These proposed countermeasures

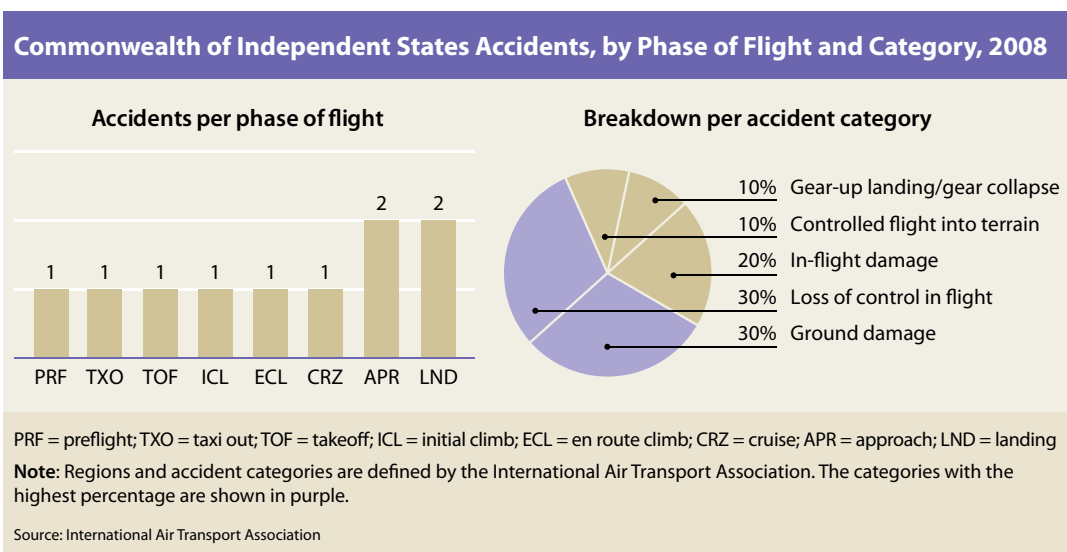


Figure 4

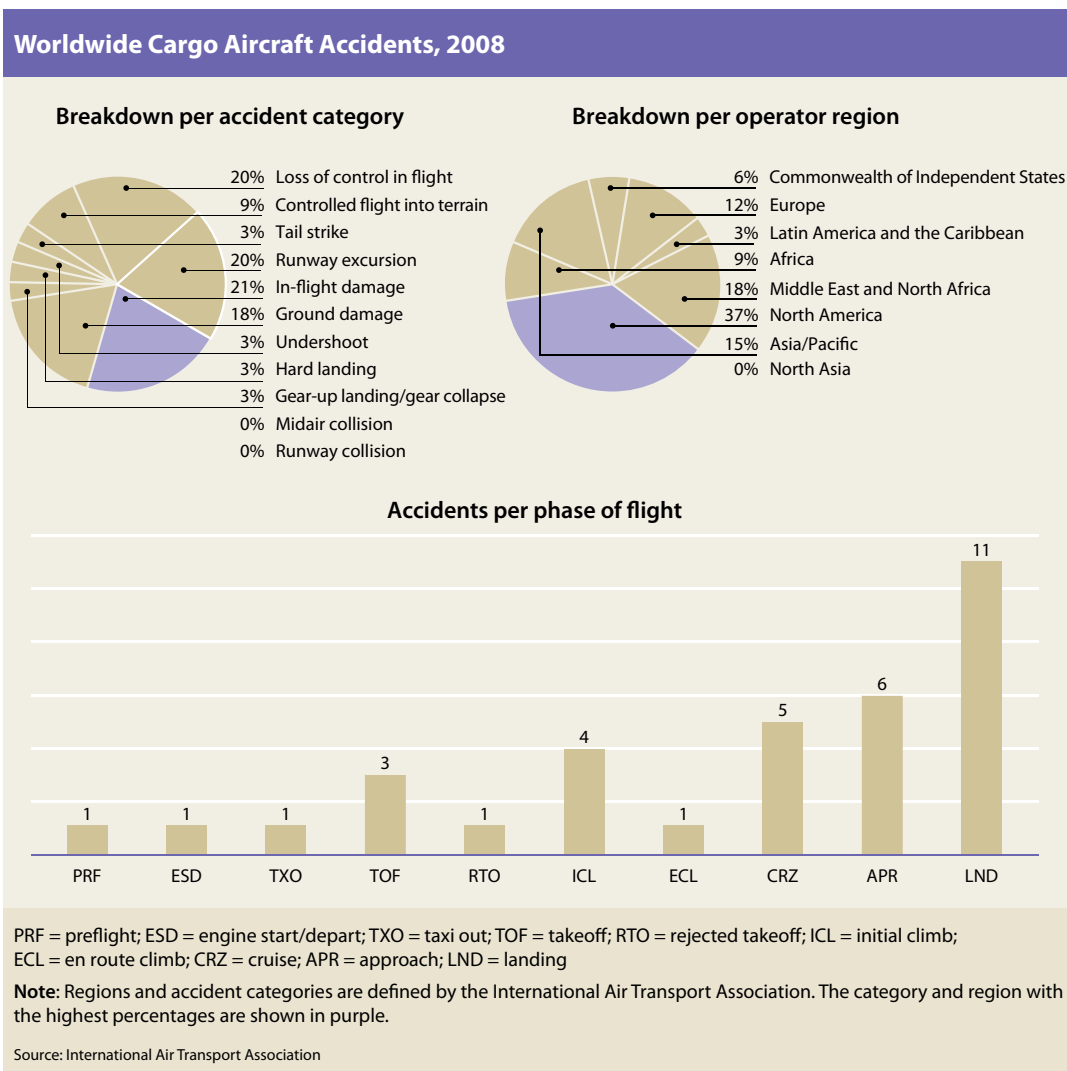
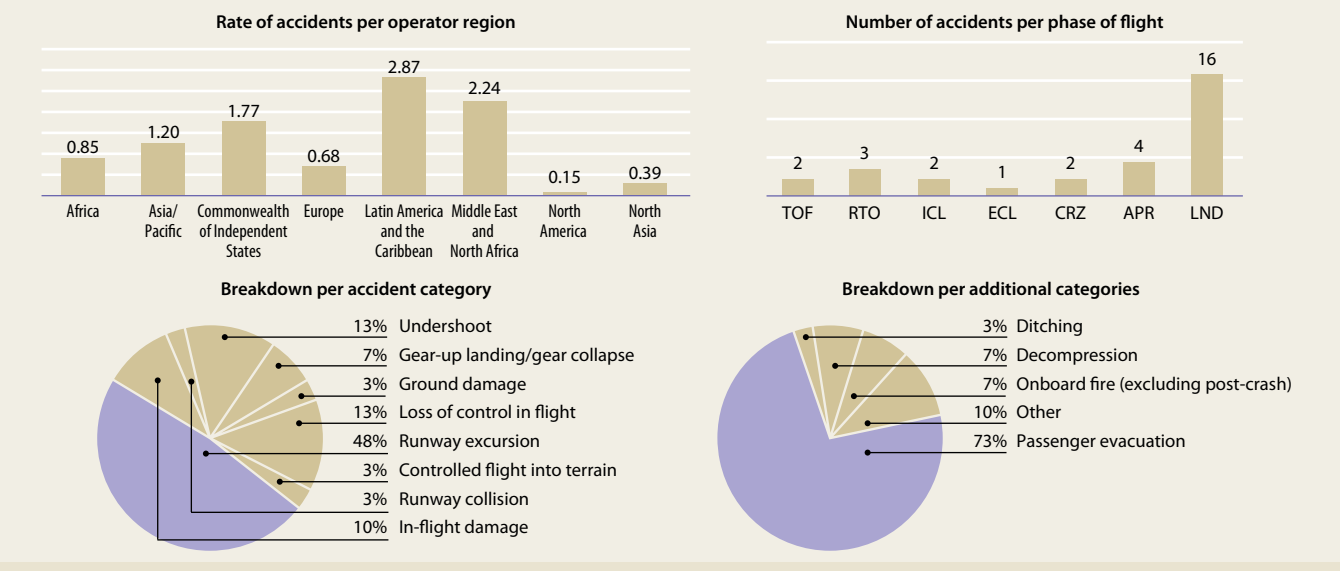


Figure 5

Worldwide Cabin Safety-Related Events, 2008



TOF = takeoff; RTO = rejected takeoff; ICL = initial climb; ECL = en route climb; CRZ = cruise; APR = approach; LND = landing  
**Note:** Regions and accident categories are defined by the International Air Transport Association. The categories with the highest percentages are shown in purple. Rates are per million sectors flown for all aircraft types.  
 Source: International Air Transport Association

Figure 6

can include issues within an organization or a particular country, or involve performance of front line personnel, such as pilots or ground personnel.”

Countermeasures can be enacted at two levels, the report says: the state responsible for oversight, and the flight crew. For each level, the ACTF calculated the percentage of accidents where countermeasures could have been helpful, categorized according to subject.

Related to the operator and the state, the task force found that the percentages of accidents where countermeasures could have been effective were 30 percent if they had been implemented by the operator’s safety management, 27 percent for the state’s regulatory oversight of the operator, 16 percent for the operator’s training systems, 13 percent for the operator’s standard operating procedures and compliance checking, and 12 percent for maintenance.

In connection with flight crews, the task force found that the percentages of accidents where countermeasures could have been effective were 28 percent for monitoring and

cross-check, 21 percent for overall crew performance, 16 percent for contingency management, 9 percent for the communication environment, and 9 percent for leadership.

For each subject, the report discusses countermeasures that could have ameliorated or prevented a portion of the accidents. 🌐

Notes

1. IATA. *Safety Report 2008*. 45th edition. Reference no. 9049-09. Ordering information is at <[www.iata.org/ps/publications/safety\\_report.htm](http://www.iata.org/ps/publications/safety_report.htm)>.
2. Middle East and North Africa represent a single IATA region. Geographical terms in this article refer to IATA regions.
3. The CIS region includes Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.
4. The report says, “At the request of member airlines, manufacturers and other organizations involved in the safety report, IATA developed an accident classification system based on the threat and error management (TEM) framework.” Data in the report represent only accidents where there was enough information available for analysis, except in the percentages of fatal accidents.