

## Flights are riskier in developing Asia

Bart Jansen, USA TODAY



A TransAsia Airways flight crashed into a Taipei river shortly after takeoff Wednesday with 58 passengers on board. Dashcam footage from cars on a bridge beside the river captured the plane going down. Dozens were either killed or missing, VPC

Flying in developing parts of Asia is riskier than in any region other than Africa, according to aviation experts and statistics. At least 26 people died when a TransAsia Airways turbo-prop clipped its left wing on a bridge shortly after taking off Wednesday in Taipei, Taiwan, and crashed into the Keelung River.

TransAsia has had four fatal crashes in the last 20 years, including two since July, according to statistics compiled by the Aviation Safety Network.

All four involved variants of the ATR 72 turbo-prop, which has been involved in 10 fatal accidents during the last 20 years, according to the network, which is a service of the Flight Safety Foundation, an industry group that studies aviation issues.

The French manufacturer, Avions de Transport Regional, issued a statement Wednesday expressing sympathy to the families of the crash of the ATR 72-600, and said the accident is under investigation.



Broadly, Asia is a riskier place to fly because regulatory regimes are less advanced than in the USA and Europe, although Japan is considered as safe as the west. Regional airlines flying turbo-props typically have pilots with less experience.

"It's not like they're the wild west, like you might get in some African countries, but they are 10 or 20 years behind," said Justin Green, a New York aviation lawyer with Kreindler & Kreindler. "If you've never heard of the airline that your travel agent is booking you on, you should do some research."

Asia had 18% of the 94 fatal airline accidents from 2009 through 2013, according to a study by the International Air Transport Association, an airline industry group. That share was less than Africa's 23%, but more than North America's 13% and Europe's 3%, according to the study.

Aviation accident rates have been declining for years. Arnold Barnett, a professor of statistics at the Massachusetts Institute of Technology, found flying safer than other types of transportation – even with the latest spate of crashes.

But Barnett found the risk of dying in a crash much higher in parts of Asia and Africa than in the USA and Europe. From 2008 through mid-2014, Barnett found the chances of one death in 6.3 million flights that begin or end in "advancing" countries such as Taiwan, compared to one in 23.9 million in the First World. In the "developing" world, such as much of Africa, the risk is one death in 1 million flights.

Another factor is that regional airlines such as TransAsia tend to use less-experienced pilots than major airlines, according to aviation experts. Because turbo-props fly shorter distances, pilots tend to fly multiple flights per day, with most accidents happening near takeoff or landing, and at lower altitude exposed to rougher weather.

"The nature of the operations in regional airlines and prop airlines is that they are short-haul and multiple flights," Green said. "Accidents tend to happen at takeoff and landing."

Steve Marks, an aviation lawyer at Podhurst Orseck in Miami, said the expanding demand for Asian air travel is pressing airlines to hire less-experienced pilots and fly older planes with less maintenance.





"It's only going to get worse before it gets better," Marks said. "Turbo-props in general require far more maintenance and are far less forgiving than typical jet engines or even propeller aircraft."

The investigation into whether possible mechanical problems or human error caused Wednesday's crash is just beginning. But the TransAsia crash in Taiwan last July, which killed 48 of 58 people aboard the ATR 72-500, occurred during Typhoon Matmo.

An airline study of the five accidents in 2013 involving ATR 72 aircraft included two that destroyed the planes and three others involved substantial damage.

In Rome, a Carpatair plane was destroyed in February 2013 after a hard landing in strong wind, but nobody was killed. And a Lao Airlines plane crashed in October 2013 into the Mekong River during a typhoon, killing all 49 people aboard.

Two earlier crashes of the aircraft with different airlines each killed 68 people, after pilots lost control of the plane with icing. An Aerocaribbean flight crashed in November 2010 in Cuba and an American Eagle flight crashed in Indiana in October 1994.

The same elements – low altitude and relatively slow speed – that make it difficult for pilots to recover from problems near the ground are also what make crashes survivable.

At least 15 people survived Wednesday's crash and 10 survived the TransAsia accident last July.

"That's why people should pay attention and keep their seat-belts buckled," Green said.