

EDITION:
UK
[News & Analysis](#)
[Sectors & Industries](#)
[Analysis & Opinion](#)
[Login](#) | [Register](#)

Search

SEARCH

HAPPENING NOW:

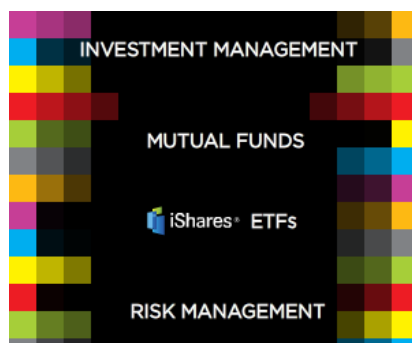
State opening of parliament - live coverage



ARTICLE

COMMENTS (0)

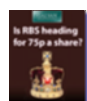
SAVE EMAIL PRINT



MOST WATCHED

MOST READ

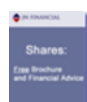
1. [Spanish bullfighter gored](#)
Sat, May 22 2010
2. [Ferguson in LA amid tabloid scandal](#)
Mon, May 24 2010
3. [Jamaica declares state of emergency](#)
Mon, May 24 2010
4. [Clinton visits Shanghai Expo](#)
Sat, May 22 2010
5. [2 Policeman die in Jamaican violence](#)
Mon, May 24 2010



RBS Shares Report
Is RBS heading for 75p a share?
Download Free Report



Uncertain Times?
Where should you invest your money and when?
Get a free guide



Shares Advice
Want to know more about shares?
Get free brochure

India crash to spur runway safety systems

(Reuters) - An Indian air crash that killed 158 people at the weekend when an airliner plunged into a ravine may speed up calls for airports to invest in technology to save lives when planes overshoot the runway.

WORLD

The disaster came four months after a potentially fatal crash was averted when a runway spillover system developed by a unit of French firm Zodiac prevented a jet from careering down a similar slope at Charleston, West Virginia.

The "EMAS" arrestor system was introduced last decade and is credited with capturing six planes which overran the runway including a Boeing 747 at New York's Kennedy airport.

It works by forcing an airplane to slow down as its wheels churn up blocks of crushable, lightweight concrete in a safety zone set back from the end of a normal runway.

The concept sounds as simple as emergency gravel lanes designed to halt runaway trucks on steep roads, but is adapted to the weight and speed of an onrushing jetliner.

It took time to develop because the material needed to be fragile enough to break and provide resistance in an emergency but -- unlike gravel -- robust enough to allow access to fire trucks or tolerate the occasional wrong turn of a taxiing jet.

Experts stress it is too early to speculate on what caused Saturday's Air India Express crash at Mangalore or whether the EMAS system alone could have prevented the Boeing 737-800 shooting off the end of a table-top runway.

Reports say the runway had a safety zone of 90 metres including a bed of sand, which failed to halt the jet.

Regulators require a minimum runway spillover area of 90 metres (295 feet) but they also recommend 240 metres (788 feet) internationally and 1,000 feet in the United States.

EMAS is designed to cut these distances, for example where space is limited by a steep drop-off, water or wetlands.

Pilot unions have been pressing for tougher regulations including wider use of such systems after an Air France Airbus overran and caught fire at Toronto in 2005.

In the Charleston incident in January, a PSA Airlines Bombardier regional jet was ensnared in a bed of crushable concrete after aborting its take-off.

Tim Hepher

PARIS

Mon May 24, 2010 9:50am
BST

Related News

[BAA drops plans for new Stansted, Heathrow runways](#)
May 24, 2010

[BAA drops plans for third runway at UK's Heathrow](#)
May 24, 2010

[Air crash puts focus on India infrastructure, safety](#)
May 22, 2010

[Crash investigators hunt for India plane black box](#)
May 22, 2010

[Eight survive plane crash in south India, 158 dead](#)
May 22, 2010

[Plane crash kills 158 in south India](#)
May 21, 2010

Login or register

[Latest from My Topics](#)

CATALYST FOR CHANGE

Minor "runway excursions" are relatively frequent and few attract notice, but overshooting the runway makes up a high proportion of those accidents that do cost lives, experts say.

"Accidents are rare in relative terms, but when they do happen, most are on approach and landing," said Paul Hayes, safety director at UK-based aviation consultancy Ascend.

Planes can overshoot a runway after approaching too fast, too high or without the proper configuration for landing.

According to U.S. conglomerate Honeywell, these types of incident as well as runway incursions cost the industry \$1 billion a year, presenting one of its worst safety headaches.

The turning point came on February 28, 1984, when a Scandinavian Airlines DC-10 slid off the runway after landing at New York's Kennedy Airport and came to rest in a shallow creek.

It was a lucky escape for the 163 passengers who evacuated on rafts or by climbing over wings, with only 1 serious injury.

But the accident at one of the world's busiest airports sparked research into new surfaces to deal with runway overruns.

In the 1990s the U.S. Federal Aviation Administration issued a blueprint for an Engineered Materials Arresting System (EMAS), based on modern materials that would break up and halt a plane.

Experts say the FAA rejected sand as too unpredictable.

So far the only solution approved for use by the FAA was developed by ESCO, a Zodiac subsidiary based in New Jersey.

But 14 years after EMAS was introduced, surprisingly few systems have been installed and almost none outside America.

Manufacturer ESCO says it has installed 48 systems in the United States and two each in mainland China and Madrid. Taipei will see the next EMAS outside the U.S. fitted later this year.

"It has taken longer to start up steadily outside the United States, but there is some interest," said Kent Thompson, vice president of airport engineering and sales told Reuters.

The principal barrier appears to be cost. Some experts also blame bureaucratic prevarication over rules for safety margins.

"The typical EMAS costs \$5 million going up to \$10 or \$12 million depending on the space. But that is small compared to the value of saving lives and aircraft," Thompson said.

The U.S. Transportation Research Board estimates there are 18 "runway excursions" a year. Most are overruns on landing. Others happen when a plane aborts take-off or lands too early.

Besides safely capturing a plane on the ground once it overshoots, engineers are looking for ways to spot the dangers of such events happening even before the pilot touches down.

A Honeywell Aerospace executive said it had made a system to break the chain of events leading up to an overrun, giving pilots time to abort the landing and go around for another try.

"It is less than \$30,000 for an upgrade; it's an option for airlines to choose," Vice-President Carl Esposito said.

(Editing by [Ralph Boulton](#))

WORLD

After reading this article, people also read:

[Crash investigators hunt for India plane black box](#)

May 24, 2010

[BP slashes oil capture estimates for Gulf spill](#)

May 24, 2010

[Obama tells military: prepare for North Korea aggression](#)

May 24, 2010

Login or register

[Bangkok residents sweep away remnants of riots](#)

Latest from
my topics

Saved
items

May 24, 2010

ADD A COMMENT


*We welcome comments that advance the story directly or with relevant tangential information. We try to block comments that use offensive language or appear to be spam and review comments frequently to ensure they meet our standards. If you see a comment that you believe is irrelevant or inappropriate, you can flag it to our editors by using the report abuse links. Views expressed in the comments do not represent those of Reuters.

Is RBS heading for 75p a share? [DOWNLOAD FREE REPORT](#)

Where should you invest your money and when? [GET A FREE GUIDE](#)

Are real estate sector shares set to double? [DOWNLOAD FREE REPORT](#)

Ads by Google[What's This?](#)**GARP Training Programs**

Professional Training from GARP the Risk & Credit Management Experts
www.GARP.com/Training

HSBC Financial Planning

Top Tips On Planning For Your Family's Financial Security Here.
HSBC.co.uk/FamilyPlanning

IBM Server Supplier

Buy your IBM System Server today. Live support & next day delivery.
www.ServersPlus.com/IBM_System_x

Stop your Panic Attacks

I have some tricks that can stop your panic attacks instantly
www.ilovepanicattacks.com

**Coalition to unveil agenda in Queen's Speech**

LONDON (Reuters) - The new coalition government will set out its legislative agenda on Tuesday, working with diminished resources because cutting a record budget deficit is its priority.

Q1 GDP revised up slightly

North Korea threatens military action in disputed waters | [VIDEO](#)

Fox says no change in Afghanistan policy

Thai court orders Thaksin arrested on terrorism charges

Memorial planned for oil rig victims | [VIDEO](#)

» [More Top News](#)

WORLD

Four killed as Jamaicans clash over drug lord | [VIDEO](#)

Tanker, carrier collide off Singapore; lanes unaffected

Iran police to confront "illegal" June protests

Thousands celebrate Ethiopia election landslide win

Gunmen kill 14 in Baghdad gold heist - police

Pakistani court quashes appeals against militant

Police question Israel's Olmert in bribery probe

SPORTS

England gather momentum with Mexico win

Murray douses Gasquet fire to win five-set epic

I would be calling the shots at Real - Mourinho

Federer fireworks light up Paris as Serena toils

Maradona's Argentina hit five in Canada rout

Tired Khan misses out on U.S. Open qualification

Nadal and Henin return to favourite stomping ground in Paris

REUTERS

© Copyright 2010 Thomson Reuters