

= Air India Express Flight 812 =

Air India Express Flight 812 was a scheduled passenger service from Dubai to Mangalore , which , at around 01 : 00 UTC on 22 May 2010 , overshot the runway on landing , fell over a cliff , and caught fire , spreading wreckage across the surrounding hillside . Of the 160 passengers and six crew members on board , only eight passengers survived .

With its 158 fatalities , the accident was the third deadliest aviation disaster in India , after the 1996 Charkhi Dadri mid @-@ air collision , which killed 349 , and the 1978 crash of Air India Flight 855 , which killed 213 . It marked the first major Indian aviation accident since the July 2000 crash of Alliance Air Flight 7412 in Patna . The accident is the deadliest crash of a 737 aircraft ( all series ) and the eighth hull loss of a Boeing 737 @-@ 800 aircraft . The crash caused the highest number of aviation fatalities in 2010 and was the second of the year to involve a 737 @-@ 800 . It was the second time that an aircraft had overshot a runway at Mangalore .

= = Aircraft and crew = =

The accident involved a Boeing 737 @-@ 800 aircraft , one of Boeing 's 737 Next Generation series , with aircraft registration VT ? AXV and manufacturer 's serial number 36333 , line number 2481 . The aircraft first flew on 20 December 2007 with the Boeing test registration N1787B and was delivered on 18 January 2008 . Commanded by Captain Zlatko Glu?ica , the remaining crew consisted of first officer Harbinder Singh Ahluwalia and four flight attendants . Glu?ica ( a former employee of Jat Airways of Serbia ) , aged 55 , a British and Serbian national with over 10 @,@ 000 hours of flying and over 7 @,@ 500 hours of command experience , and Ahluwalia ( a former employee of Jat Airways who joined Air India Express in April 2009 ) were both killed in the incident . Both pilots were based in Mangalore .

= = Flight = =

The flight departed Dubai International Airport at 01 : 06 GST ( 21 : 06 UTC ) . It crashed upon landing at Mangalore International Airport at 06 : 05 IST ( 00 : 35 UTC ) . Situated in a hilly area , the airport is one of seven Indian airports designated as a " critical airfield " by the Directorate General of Civil Aviation ( DGCA ) . DGCA rules at critical airfields prohibit " supervised take offs and landings " , so that only the captain ( not the first officer ) may pilot an aircraft during take @-@ off and landing . The airport is one of three airports in India having table top runways ( the others being Kozhikode and Lengpui ) that require heightened awareness and a very precise landing approach .

= = Crash = =

After touching down on the 8 @,@ 033 @-@ foot ( 2 @,@ 448 m ) runway 24 , the plane overran and crashed down the hill at its far end . The final conversations between Air traffic control ( ATC ) and the pilot prior to the landing showed no indication of distress .

The then Civil Aviation Minister , Praful Patel said that the aircraft was following an Instrument landing system ( ILS ) approach for landing on the newer , longer , runway , which was commissioned in 2006 . The pilot reported to ATC that it was ' established ' on an ILS approach about 4 @.@ 3 miles ( 6 @.@ 9 km ) from touchdown ; landing clearance was then given at 2 @,@ 000 feet ( 610 m ) from touchdown . The aeroplane concluded its ILS approach on runway 24 , touching down 5 @,@ 200 feet ( 1 @,@ 600 m ) from the start of the runway , leaving 2 @,@ 800 feet ( 850 m ) in which to stop . It overran the runway and ploughed through a 90 @-@ metre ( 300 ft ) sand arrestor bed which did not stop it . As the aircraft passed the arrestor bed , its starboard wing collided with the concrete socket of the ILS localiser antenna ; it finally plunged over the edge of the table @-@ top about 790 feet ( 240 m ) beyond the end of the runway and down the steep hillside coming to a stop 660 to 980 feet ( 200 to 300 m ) metres past the top of the slope .

" The plane broke in two " said one survivor " and a dense black smoke invaded the cabin . I jumped out through an opening in the window . Six other passengers followed me . We fled , with the help of the inhabitants of the nearby village " . Television footage from shortly after the crash showed the remains of the aircraft on fire and lying on its belly with smoke rising from the wreckage . The minister also stated that weather conditions were normal with a visibility of 3 @. @ 7 miles ( 6 @. @ 0 km ) , and said wind conditions were calm and there was no rain at the time of the crash . A drizzle started only after the accident .

= = Victims = =

Apart from the six crew members , a total of 160 passengers were on board at the time of the crash . Although there were 169 names on the original passenger list , nine did not board the flight . All the bodies were recovered from the wreckage . Karnataka Home Minister V. S. Acharya said eight people were initially reported to have survived , although one person died of his injuries ? this was however refuted by an Air India spokesman who confirmed that all initial survivors were alive . This confusion arose after fire fighters rescued a little girl who died on the way to hospital . The airport manager at Mangalore , Peter Abraham confirmed that there were difficulties when trying to reach the plane .

After the crash , some comments surfaced online , which poke fun at the victims and their families . The comments appeared on a news website , which has been taken down .

On 27 July 2010 , the names of all the victims were inscribed on a memorial installed near the crash site which was destroyed by vandals on 5 October 2010 .

= = Rescue and response = =

Local villagers were among the first on the scene to help while an estimated 15 fire trucks , 20 ambulances and 100 rescue workers were immediately allocated to rescue operations . Karnataka Western Range Inspector General of Police , Gopal Hosur , said that eight to ten people had been moved to hospitals , and that the Karnataka Police force , bomb squad , Karnataka Fire and Emergency Services , Karnataka State Reserve Police and all hospitals were working together to help out . The Central Industrial Security Force ( CISF ) sent 150 personnel to Mangalore to help in the relief and rescue operations . Bodies of all of the deceased were recovered from the crash site on the day of the crash , with relatives of the deceased receiving 87 of the bodies .

After the rapid establishment of a special emergency information service , Praful Patel , Indian Civil Aviation minister , arrived from New Delhi to be at the scene and the one @- @ year @- @ in @- @ office celebrations of the UPA government 's second tenure were postponed . Patel was soon followed by Karnataka Chief Minister B. S. Yeddyurappa and Kerala Chief Minister V. S. Achuthanandan to take control of the situation . The chairperson of the governing UPA , Sonia Gandhi issued a message of grief and wished a " speedy recovery " to all . The Indian Minister for Civil Aviation , Praful Patel , took moral responsibility for the accident and offered to resign his post , an offer rejected by the Prime Minister of India , Manmohan Singh . Many countries and organisations expressed sorrow and condolences to the people of India over the crash . The accident was predicted to cost the insurers , and their reinsurers ? 4 billion ( US \$ 60 million ) . Air India 's insurance company paid out ? 900 million ( US \$ 10 million ) in settlement of the hull loss , and the company had already received ? 1 @. @ 38 billion ( US \$ 20 million ) , that is 60 per cent of the estimated ? 2 @. @ 3 billion ( US \$ 30 million ) . School of social Work , roshni nilaya conducted a study on Psychosocial Support for Survivors and Families of the Victims of Mangalore Air Crash to give the psyco @- @ emotional support .

= = Investigation = =

Initial investigations revealed that the plane landed at least 2 @, @ 000 feet ( 610 m ) beyond the usual touch down point on Mangalore 's new 8 @, @ 040 @- @ foot ( 2 @, @ 450 m ) runway 24 . A

team of airline officials , staff and officials from the Airports Authority of India and officers of the Directorate General of Civil Aviation ( India ) were rushed to the scene to investigate the accident and assist with rescue efforts . Boeing also announced that a team would be sent to provide technical assistance following a request from Indian authorities . The Directorate General of Civil Aviation ordered an inquiry into the crash , which began the same day . The NTSB also assisted the investigation by sending a team of specialists including a senior air safety investigator , a flight operations specialist , an aircraft systems specialist and technical advisers for Boeing and the Federal Aviation Administration .

Captain G. G. G. was given clearance to land , however , he suddenly aborted the attempted landing . The aircraft 's throttle handle was found in the forward position , suggesting that the pilot had attempted to abort the landing and take off again . The co - pilot Ahluwalia had warned his commander three times to go around instead of landing ; the first of these warnings had come 2 @ . @ 5 miles before the runway threshold .

The cockpit voice recorder ( CVR ) was recovered on 23 May , and the flight data recorder ( FDR ) two days later . The recorders were sent to New Delhi by the Directorate General of Civil Aviation for data acquisition and analysis and subsequently to the US NTSB for investigation . DGCA official Zaidi claimed " better data protection " while unnamed officials mentioned heavy damage to the devices . In direct response to the accident the Government of India decided to set up an independent air accident enquiry board called the Civil Aviation Authority that would function independently of the DGCA . Effectively this meant that the DGCA would be the regulator and the CAA the investigator . The Director General of the DGCA said that it would be set up through legislation , and would comply with the recommendations of the International Civil Aviation Organization .

The enquiry report submitted by the Civil Aviation Ministry claimed that G. G. G. slept for over 90 minutes during the flight . The Air India Express IX 812 Boeing 737 @ - @ 800 carrying 166 people from Dubai including the crew , crashed while negotiating a tricky landing at Mangalore city 's " table @ - @ top " airport overlooking a ravine . The American National Transportation Safety Board says it was the first instance of snoring recorded on a Cockpit Voice Recorder ( CVR ) . Analysis of the accident revealed that had the pilot " deployed détente reverse thrust and applied maximum manual braking at touchdown " , the aircraft could have been stopped within the paved overrun area of the runway . The captain had exacerbated the long landing by attempting a go @ - @ around following deployment of the thrust reversers .

= = Court of Inquiry = =

On 3 June 2010 , the Government of India appointed Former Vice Chief of Air Staff , Air Marshal Bhushan Nilkanth Gokhale as head of a Court of Inquiry to investigate the air crash . The " Gokhale Inquiry " was to investigate the reasons behind the crash , and submit its findings by 31 August 2010 , a deadline later extended by a month to 30 September 2010 . The Government also appointed four experts to this Court of Inquiry to assist in the investigation . The Court of Inquiry started its investigations by visiting the crash site on 7 June 2010 , and visited all eight crash survivors to gather information .

On 17 August 2010 , the Court of Inquiry began a three @ - @ day public hearing in Mangalore to interview airport officials and witnesses . On day one , airport and airline officials deposed that the aircraft had approached at an altitude higher than usual , and that it had landed beyond the landing zone ( LDZ ) . They also mentioned that the airport 's radar was operational from 20 May 2010 . The airport chief fire officer testified that crash tenders had taken four minutes to reach the aircraft because the road leading away from the airport perimeter to the crash site was very narrow and undulating . On day two , a transcript of the cockpit to ATC conversation was released , which indicated that the co @ - @ pilot had suggested a " go around " after the pilot informed ATC that it was ' clear to land ' .

Doctors who conducted post mortems on the bodies recovered recorded that most victims had died of burns . On day four Air India 's flight safety officer informed the inquiry that the aircraft 's thrust

lever and thrust reverse levers were both in the forward position , possibly indicating that the pilot intended to go around . The inquiry panel stated that information from the FDR would be released at the next hearing of the Court of Inquiry in New Delhi on 3 September 2010 , and that of the CVR soon after . The Court of Inquiry would submit its report on 30 September 2010 .

On 8 September 2010 , details from the CVR and FDR were presented to the Court of Inquiry . The CVR analysis revealed that one of the pilots was asleep in the cockpit . For 110 minutes the CVR had picked up no conversation from the pilots , with the report adding that the sound of nasal snoring and deep breathing could be heard during this recording . The FDR analysis indicated that the flight started its final descent at an altitude of 4 @, @ 400 feet ( 1 @, @ 300 m ) , instead of the normal 2 @, @ 000 feet ( 610 m ) . The aircraft also touched down at the 4 @, @ 638 @-@ foot ( 1 @, @ 414 m ) mark on the runway instead of the 1 @, @ 000 @-@ foot ( 300 m ) mark , whereupon the pilot then tried to take off with just 800 feet ( 240 m ) of the runway remaining which resulted in the crash . Both pilots had been aware of the wrong flight path since they are both heard saying " Flight is taking wrong path and wrong side " , while the aircraft 's instruments had given repeated warnings of this .

On 16 November 2010 , five months after the Court of Inquiry was constituted , it submitted its report with input from the NTSB and Boeing , and stated that pilot error was the cause of the accident since the flight path was incorrect .

As of Jan 2013 , Directorate General of Civil Aviation ( DGCA ) , AAI and Ministry of Aviation , and the Government of India have not implemented the recommendations of the 812 crash inquiry committee . Work on runway lengthening has not started . 812 Foundation , a Mangalore @-@ based trust , has filed the criminal charges for negligence against regulatory authorities and the airline . Regulatory authority and other organisations named in the petition are thinking of seeking anticipatory bail for their top officials , as the petition seeks non @-@ bailable arrest warrants against those responsible .

= = Compensation = =

The Prime Minister of India , Manmohan Singh announced ? 200 @, @ 000 ( US \$ 3 @, @ 000 ) or ? 3 @, @ 390 ) for the families of the dead and ? 50 @, @ 000 ( US \$ 740 ) for the injured to be allocated from the Prime Minister 's National Relief Fund . Karnataka Chief Minister Yeddyurappa has also announced compensation of ? 200 @, @ 000 ( US \$ 3 @, @ 000 ) to the families of the dead . In addition to this , the Civil Aviation Ministry advised that the Airline will provide up to ? 7 @. @ 2 million ( US \$ 106 @, @ 990 ) to family members of each victim as per the provisions of the Indian Carriage by Air ( Amendment ) Act which follows the Montreal Convention .

The Airline announced interim compensation of ? 1 million ( US \$ 14 @, @ 860 ) for passengers above 12 years of age , ? 500 @, @ 000 ( US \$ 7 @, @ 400 ) for passengers below 12 years of age and ? 200 @, @ 000 ( US \$ 3 @, @ 000 ) for every injured passenger . This compensation is over and above the ex @-@ gratia payment announced by the Prime Minister . Additionally , Air India has said it would offer jobs to the survivors . As of 11 June 2010 an amount of ? 170 million ( US \$ 3 million ) had been distributed as compensation to the families of the victims and to the eight survivors . Victims ' families have become increasingly vocal as to the inequitable nature of compensation paid out by Air India , and also of the alleged hostile attitude of the airline 's counsel .

Members of the Democratic Youth Federation of India ( DYFI ) along with Kasargod MP P Karunkaran staged a protest on 8 September 2010 at the airline 's office in Mangalore where they submitted a memorandum to officials demanding that families of the victims receive early and equitable settlements of compensation due . They also demanded the settlement process be made more transparent by opening it to the media rather than holding sessions in camera .

On 20 July 2011 , the Kerala High Court based on the petition filed by one of the victims ruled that Air India was liable to pay a no fault liability of one lakh SDR or the Indian rupee equivalent of ? 7 @. @ 5 million ( US \$ 111 @, @ 450 ) . In its ruling the court noted that India was a signatory to the Montreal Convention , " It is clear that the intention of lawmakers was to bring about a parity in the matter of payment of compensation to the passengers , irrespective of class of travel , while

providing for a ' two tier system ' of compensation as adopted in Montreal convention . " The court further ruled that this was over and above any other compensation that the petitioners are entitled to . Air India appealed this order in the Kerala High Court and on 25 August 2011 , the division bench stayed the single bench order on compensation of ? 7 @. @ 5 million ( US \$ 111 @, @ 450 ) . However , on 5 September 2011 based on a petition by relatives of one of the deceased passengers the Kerala High Court ordered Air India to pay an interim compensation of ? 1 million ( US \$ 14 @, @ 860 ) .