



Lessons Learned From 8.24 Air Crash in 2010 —Cabin Crew Emergency Evacuation Training

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Overview

- Brief Introduction to 8.24 Air Crash.
- Cabin crew's performance during the crash.
- Lessons learnt from the crash.
- Suggestions to cabin crew emergency evacuation training.
- Cabin safety training in CAC, CAUC.



Brief Introduction to 8.24 Air Crash

- VD8387
 - Airline: Henan Airlines
 - Aircraft type: ERJ 190
 - Time: August 24, 2010
 - Flight: Harbin – Yichun (North-eastern China)
 - Crew: 2 pilots, 3 flight attendants
 - PAXs: 91





Brief Introduction to 8.24 Air Crash

- Type
 - Controlled flight into terrain
- Casualties
 - 42 people have been killed (including the copilot, the purser and one flight attendant)
 - 3 were in a critical condition(2 died in hospital because of serious injury)

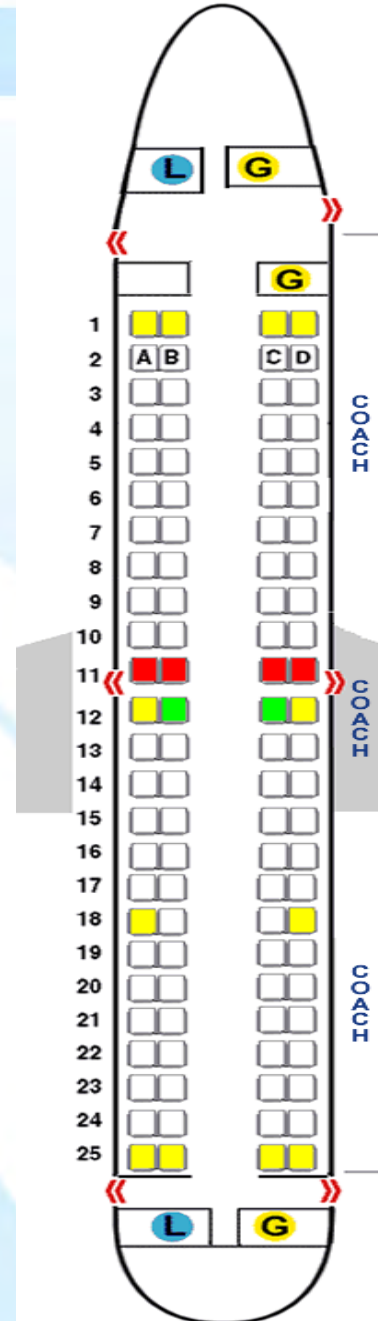


中新网
ChinaNews.com



Brief Introduction to 8.24 Air Crash

- Airlines information
 - based in Henan province (central China)
 - flying shorter routes, mainly in north and north-east China
- Aircraft information
 - Brazil-made
 - Certified to operate in Dec.2008
 - Total flight time: 5109.6 hrs
 - Capacity: 108 PAXs





Brief Introduction to 8.24 Air Crash

- Destination airport
 - Lindu airport: a small domestic facility opened only in 2009.
 - No ILS (Instrument Landing System)
 - Visual Flight requirement: the visibility is more than 1600 meters in the final approach
 - Recommendation by China Southern: No night flight after Dec. 1st



Brief Introduction to 8.24 Air Crash

- Details

- At 20:51: takeoff from the provincial capital Harbin;
- At 21:10: initial contact with the Airport controller;
- At 21:16: notified a little heavy fog in the final approach;
- At 21:28:38: flying over the airport;
- At 21:33:50: receiving the landing clearance and being reminded of the minimum descent altitude: 440 meters ;
- At 21:36:49: disconnecting auto-pilot;
- At 21:38:08: The aircraft touched down around 1.5 km (0.93 mile) short of the runway, hit the ground and burst into flames.

飞机撞地过程还原

在撞地前约1000米处，飞行员发现高度过低，立即拉升飞机，但未能避免撞地。撞地后，飞机机身解体，部分机体碎片坠落在距撞地点约1000米处。

3 在撞地前约1000米处，部分机体解体，主机身碎片坠落于1000米处。

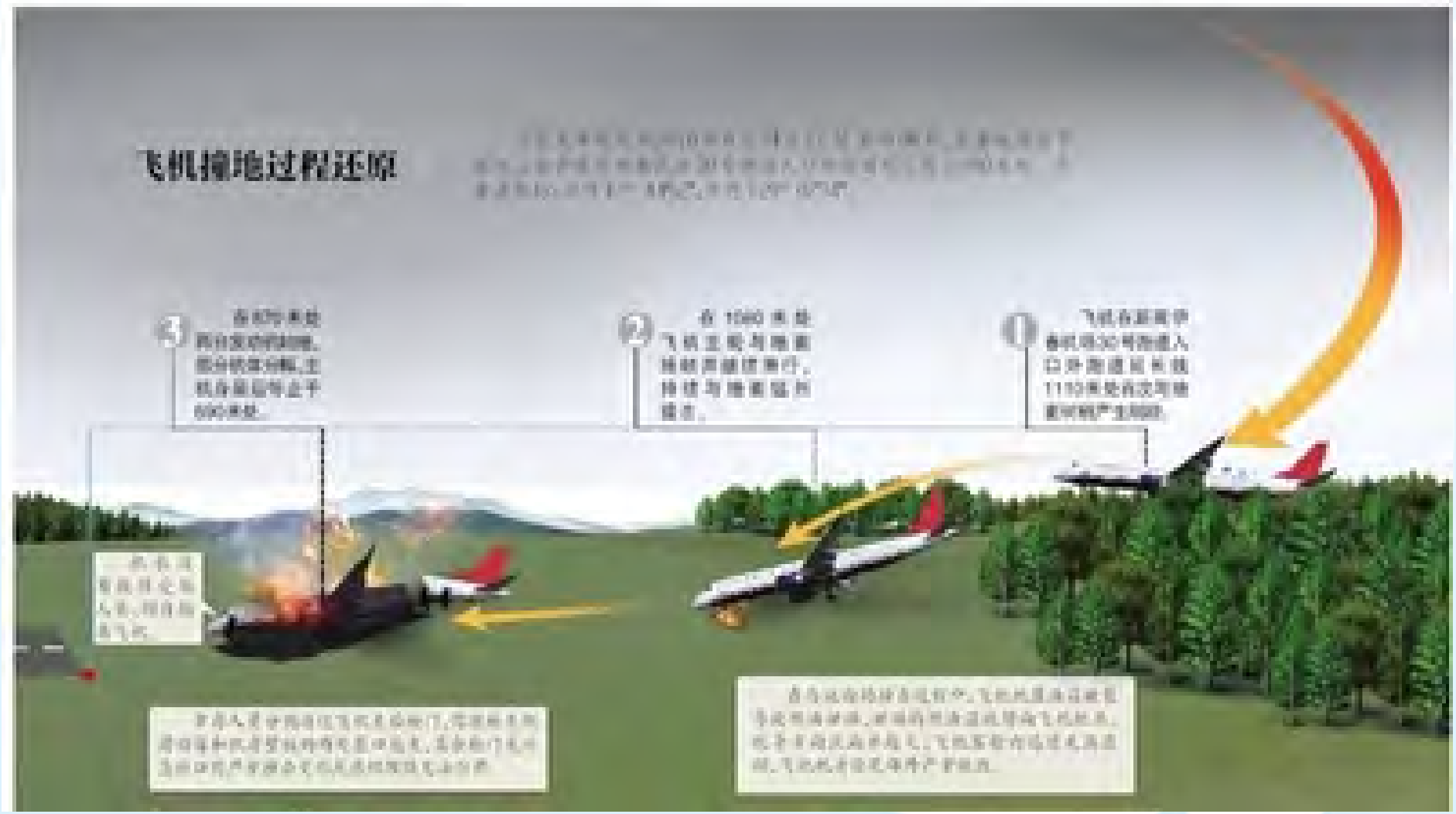
2 在1000米处，飞机主机身与地面接触并继续滑行，持续与地面剧烈摩擦。

1 飞机在距撞地约1100米处进入失速状态，机头1100米处首次与地面接触产生碰撞。

撞地后，机身解体，部分机体碎片坠落在距撞地点约1000米处。

撞地后，机身解体，部分机体碎片坠落在距撞地点约1000米处。

撞地后，机身解体，部分机体碎片坠落在距撞地点约1000米处。





690m/2263ft



Cabin Crew's Performance in the Crash

- The FWD cabin doors were not opened;
- The purser shouted evacuation commands to PAXs instead of by megaphones;
- Two cabin crewmembers were found dead in the front cabin; one unconscious in the aft.



Lessons Learnt from the Crash

- Cabin doors operation drills, esp. under adverse conditions;
- PAX flow control drills in emergencies;
- Purser's roles in emergencies.



Suggestions to Cabin Crew Emergency training

- Strict approval and audit of the training syllabus, training facilities, and training organizations;
- Approaches to enhance cabin crew's safety awareness



Suggestions to Cabin Crew Emergency Evacuation training

- More cases study and discussion;
- Simulating various emergency situations far from the previous accidents;
- Drills of good assessment of conditions at exits;
- More drills on unplanned land/river evacuations;
- Purser's Roles in emergencies



Suggestions to Cabin Crew Emergency Evacuation training

- Inviting flight instructors to join in the course design esp. on land/river evacuation preparations.
- Inviting the airlines' frequent flyers to join in the emergency evacuation.
- Drills of Silent Review in the flight critical phases.



Cabin safety training in CAC, CAUC

- Civil Aviation University of China (CAUC)
(www.cauc.edu.cn)
 - **Founded in 1951**
 - **17 colleges & 4 experimental centers**
 - **Over 1000 teaching staff**
 - **More than 20,000 students**
 - **CAUC graduates**
 - **Close cooperation with ICAO & IATA**





Cabin Attendant College (CAC)

- 40 years of training flight attendants
- In 1999 establishment
- Graduates





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Cabin Attendant College of CAUC





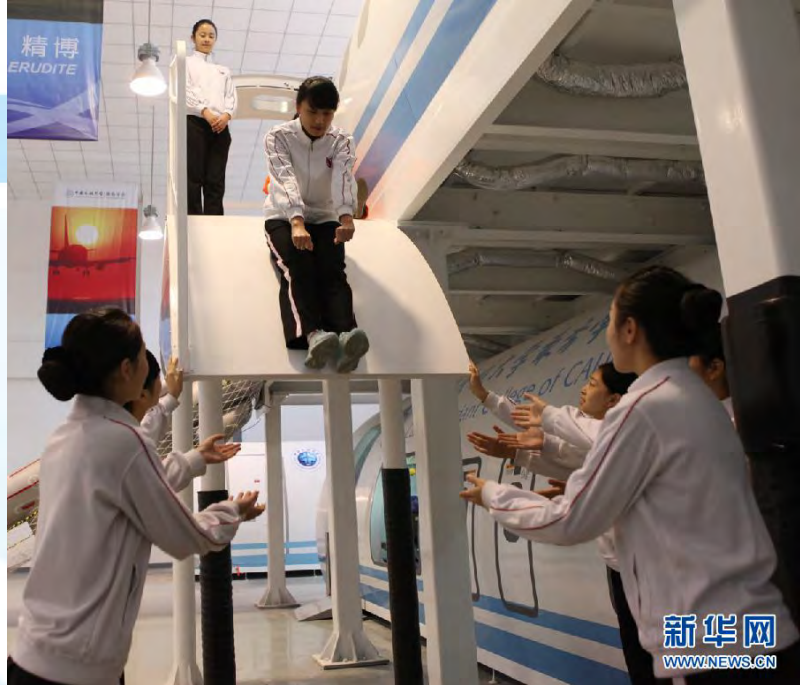
Cabin Safety Awareness Training

- Courses
 - Cabin Safety & Management
 - First-Aid onboard
 - Transportation & Management of Dangerous Goods
 - Aviation Laws & Regulations
 - ...



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Cabin Safety Training Equipment





紧急救护



外伤紧急救护

切割伤紧急救护

1. 如果出血不多，可用创可贴或消毒过的纱布包扎。
2. 如果伤口很深，流出的血呈鲜红色且流得很急，甚至往外喷；可判断为动脉出血，必须把血管压住（压迫止血点），即压住比伤口距离心脏更近部位的静脉（止血点），进行止血。
3. 如果切割的器具不洁，为防止伤口感染，最好去医院注射破伤风预防针和抗生素。
4. 如果手指或脚趾被切断，应压迫受伤的部位止血。伤口用无菌纱布或清洁纱布包扎。断离的手指、脚趾也要包扎，立即送医院进行手术。夏天，最好将断指（趾）放入冰桶内护送，冰块不得直接接触及断指（趾），以防冻伤。禁止用水或任何药液浸泡处理，以免破坏再植条件。

指压止血法



前臂出血



手背、手指出血



下肢出血

穿刺伤紧急救护

被铁钉或木刺等锐器刺伤后，伤口若处理不好，很容易发生感染，严重的还会引起败血症或破伤风。所以无论多小的刺伤，不能慌张地用指甲去拔异物，而应使用消毒的小镊子等工具进行处理。

刺伤深，容易伤及神经、内脏，刺入物不能随意拔除，以防止大出血等意外情况。如果肠管等脏露出，不应在现场复位，可用洗净的碗、盆等覆盖后包扎，立即送医院救治。





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Thank You !

