'Unprofessional Behavior' Cited in Overrun

An arrestor bed saved a regional jet from plunging down a steep slope.

BY MARK LACAGNINA

The following information provides an awareness of problems in the hope that they can be avoided in the future. The information is based on final reports by official investigative authorities on aircraft accidents and incidents.

JETS



Takeoff Rejected Above V₁

Bombardier CRJ200. Minor damage. No injuries.

he flight crew's "unprofessional behavior" and "lack of checklist discipline" were among the probable causes of the Jan. 19, 2010, incident in which the CRJ overran the runway during a rejected takeoff at Yeager Airport in Charleston, West Virginia, U.S., said the U.S. National Transportation Safety Board (NTSB). A recently installed engineered material arresting system (EMAS) stopped the airplane short of a steep slope, and none of the 34 people aboard the regional jet was injured.

"Cockpit voice recorder (CVR) information revealed that the flight crew began a personal conversation — that is, a conversation not pertinent to the operation of the airplane — during a departure delay," the NTSB report said. "The flight crewmembers continued the nonpertinent conversation throughout the entire taxi, which was not in accordance with company procedures and federal regulations regarding 'sterile cockpit.' CVR information also revealed that although the flight crew completed all of the required checklist items during the taxi, each item was read and responded to in a very quick and routine manner."

Of particular relevance is that after the captain called for "flaps 20," the first officer called out "flaps eight" and "eight degrees" while conducting the "Taxi" checklist. The captain did not notice the error, and he responded "set" and "eight," respectively, to the first officer's callouts. Recorded flight data confirmed that the flaps were set to eight degrees, rather than 20 degrees, for takeoff.

"The rapid and perfunctory manner in which the flight crew conducted the 'Taxi' checklist resulted in the captain not visually comparing the airplane's flap position with the aircraft communications addressing and reporting system [ACARS] data, which was his normal practice," the report said. "After rapidly completing the 'Taxi' checklist, the flight crew continued the nonpertinent conversation until the captain called for the 'Before Takeoff' checklist."

The pilots, who were beginning their fifth flight on the first day of a three-day trip sequence, also conducted the "Before Takeoff" checklist rapidly and did not conduct a proper takeoff briefing before the airport traffic controller cleared them for takeoff from Runway 23, the report said.

Yeager Airport is on a plateau in mountainous terrain. Runway 23 is 6,300 ft (1,920 m) long, and the terrain beyond the end of the runway ends with a steep, 350-ft (107-m) slope. An EMAS was installed 50 ft (15 m) beyond the end of the runway in September 2007. With a length of 455 ft (139 m), it is shorter than the 600-ft (183-m) standard specified by the U.S.



Federal Aviation Administration. However, the EMAS manufacturer told investigators that the arrestor bed is capable of stopping airplanes of similar size and weight to the CRJ200 that enter it at 70 kt or less.

The takeoff weight of the incident airplane was 44,400 lb (20,140 kg). ACARS performance data included a flap setting of 20 degrees, a reduced thrust setting, 127 kt for V_1 — the maximum speed at which action must be taken to reject a takeoff — and 128 kt for rotation.

Calculations by Bombardier, based on airplane flight manual data and the conditions that existed at Yeager Airport, indicated that the CRJ could have been stopped on the runway about 5,730 ft (1,747 m) from the beginning of the takeoff roll if the takeoff was rejected at V_1 . The calculations assumed a flap setting of 20 degrees.

Visual meteorological conditions, with calm winds, prevailed as the captain, the pilot flying, initiated the takeoff. He was 38 and had 9,525 flight hours, including 4,608 hours as pilot-incommand in type. The first officer was 44 and had 3,029 flight hours, including 1,981 hours in type.

The captain apparently noticed the flap misconfiguration and attempted to change the flap setting during the takeoff roll. "The takeoff was normal until the airplane reached an airspeed of about 120 kt," the report said. "At this time, FDR [flight data recorder] data showed the flaps beginning to move from the flaps 8 [position] to the flaps 20 position. Shortly thereafter, the first officer stated, 'V one.' ... The CVR then recorded the sound of the airplane master caution and flaps and spoilers configuration aural alerts. The captain initiated a rejected takeoff (RTO) about five seconds after he started moving the flaps [from eight degrees to 20 degrees] and when the airplane was at an airspeed of about 140 kt, which was 13 kt above V₁." The pilots reduced thrust to idle, extended the flight and ground spoilers, and applied wheel braking.

The report said that the captain should have initiated the RTO when he noticed that the flaps were not configured properly: "As a result of the captain's decision to attempt to reconfigure the

flaps and delay the RTO, the airplane overran the runway end and entered the [EMAS] at an airspeed of about 50 kt." The CRJ came to a stop after traveling through 128 ft (39 m) of the arrestor bed. The flaps, landing gear and landing gear doors received minor damage.

The EMAS "contributed to the survivability of the incident," the report said. "If this incident had occurred before the installation of the EMAS, the airplane most likely would have traveled beyond the length of the original safety area and off the steep slope immediately beyond its end."

Panic Hinders Upset Recovery

Boeing 737-800NG. No damage. No injuries.

he aircraft was cruising at Mach 0.76 at Flight Level 370 (approximately 37,000 ft) during a charter flight with 113 passengers from the United Arab Emirates to India on May 26, 2010, when the commander left the cockpit to use the forward lavatory. He found the lavatory occupied, however, and was returning to the cockpit when he noticed that the 737 was entering a steep nose-down attitude, said the report by the Indian Directorate General of Civil Aviation.

The senior cabin crewmember, who was in the forward galley, also noticed that the aircraft had entered a steep descent. She attempted to "buzz" the cockpit but received no reply, the report said.

The commander attempted unsuccessfully to hail the copilot on the interphone and ask him to open the cockpit door. He then used the emergency access code to open the cockpit door, a process that took 30 seconds to accomplish. The commander then rushed into the cockpit, shouting, "What are you doing?" He found that the aircraft was in a 26-degree nose-down pitch attitude and was banked 5 degrees left, and that airspeed was in the "red band," the report said.

The commander manually recovered control and returned the aircraft to the assigned flight level and course. All the passengers were seated during the incident, and although they were "very much scared and were shouting loudly,"

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there were no injuries, the report said. The commander subsequently used the public address system to tell the passengers that the aircraft "went through an air pocket ... but now everything is safe."

The 737 was landed without further incident at the scheduled destination — Pune, Maharashtra, India — about an hour and a half later. A postflight examination revealed no noticeable damage. However, the aircraft had experienced loads of plus 2.02 g (i.e., 2.02 times standard gravitational acceleration) and minus 0.2 g, which required structural inspections to be performed according to the aircraft maintenance manual. No damage was found during the inspections, and the aircraft was returned to service.

Analysis of recorded flight data showed that after the commander left the cockpit, the copilot's control column moved forward. "This was due to the copilot adjusting his seat forward and inadvertently pressing the control column forward," the report said. This caused the aircraft to pitch about five degrees nose-down and the autopilot mode to change to control wheel steering. The force on the control column, which had reached 20 lb (9 kg), then was relaxed, and the aircraft entered an unspecified nose-up pitch attitude for about four seconds. The copilot responded by "sharply" moving the control column forward, the report said. The force on the column reached 60 lb (27 kg). The overspeed warning sounded when airspeed exceeded the 0.82 Mach limit as the aircraft descended through 34,900 ft.

The FDR data indicated that after the commander re-entered the cockpit, opposing forces were applied to the control columns. However, the commander then "yanked the control column with approximately 125 lb [57 kg] of pull force," the report said. Airspeed increased to 0.9 Mach and the g-loading increased to the maximum recorded before the captain recovered control at 30,200 ft.

The report said that if the rapid descent had continued, catastrophic structural failure would have occurred. It also said, "The yanking of the

control column by [the commander] could have also resulted in loss of pitch control surfaces."

The commander told investigators that when he asked the 25-year-old copilot, who had 1,310 flight hours, including 968 hours in type, why he did not open the cockpit door when he was hailed, the copilot said that he had become "panic stricken."

The copilot told investigators that he was doing paperwork when the commander left the cockpit. He said that the control wheel steering mode engaged suddenly, and he tried to control the rapidly increasing airspeed by reducing thrust and selecting the autopilot altitude-hold mode. When the altitude-alert chime and the overspeed warning sounded, "he got into a panic situation and couldn't control the aircraft ... open the cockpit door [or] answer the cabin call," the report said. The copilot said that the situation lasted about 30 to 40 seconds before the commander entered the cockpit and assumed control of the aircraft.

The copilot "probably had no clue [how] to tackle this kind of emergency," the report said. "The jet upset exercise is carried out during simulator check in manual mode and not done with the autopilot engaged."

Deicing Fluid Fouls Cabin Air

Airbus A320-233. No damage. No injuries.

eavy snow fell while the A320 was on the ramp at Sweden's Stockholm-Västerås Airport the night of March 2, 2009. During a verbal exchange in English, the commander told the deicing vehicle operator to apply Type I deicing fluid and Type II anti-icing fluid to the aircraft. The deicing vehicle operator said, "Are you ready for deicing?"

The commander replied, "Be ready for deicing." However, the deicing vehicle operator understood this as meaning that the commander was ready for the aircraft to be deiced, said the report by the Swedish Accident Investigation Board (SHK).

The A320's auxiliary power unit (APU) and air conditioning system had not been shut down, as required, before the vehicle operator

began deicing the right side of the aircraft. As a result, deicing fluid entered the APU and the air conditioning system. The flight crew noticed the odor of deicing fluid and told the vehicle operator to stop deicing the aircraft. "The aircraft doors were opened, and the aircraft was ventilated, also with assistance from the air conditioning system at a high temperature, for about 20 minutes," the report said. "The aircraft was then deiced again and treated with [antiicing] fluid before takeoff."

After departing from Västerås with 79 passengers for a scheduled flight to Poznan, Poland, the flight crew detected an "unpleasant odor" in the cockpit at cruise altitude and donned their oxygen masks as a precaution. One passenger and two cabin crewmembers experienced slight difficulty in breathing, as well as eye irritation. They also used supplemental oxygen to alleviate the symptoms.

The commander considered diverting to the nearest alternate airport but decided that the odor was not a safety risk and that the time gained in diverting the flight would be marginal compared with continuing to the destination, the report said. The A320 was landed at Poznan without further incident.

The SHK concluded that although the flight crew "took reasonable action" to ventilate the aircraft after smelling deicing fluid before departure, some deicing fluid likely remained in the air conditioning system. "One possible reason could be that the ventilation was carried out only with the air conditioning system set for maximum heating and not, in addition, with maximum cooling of the cabin air," the report said.

Fatigued Crew Lands on Taxiway

Boeing 767-300ER. No damage. No injuries.

hree pilots were required for the scheduled flight from Rio de Janeiro, Brazil, to Atlanta Hartsfield International Airport the night of Oct. 19, 2009. The flight crew comprised a check airman, a captain and a first officer.

During preflight preparations, the check airman experienced gastrointestinal distress. "After a brief time away from the flight deck, the check

airman returned to the flight deck and advised the other crewmembers he was 'fine," the NTSB report said.

There was a 30-minute delay before the 767 departed with 182 passengers and 12 crewmembers. The captain was in the left seat, the check airman was in the right seat, and the first officer was in the observer's seat. After establishing the airplane in cruise flight, the crew discussed rest breaks and decided that the check airman should take the first break, comprising 2 hours and 50 minutes.

"At the completion of his rest break, it was determined that the check airman was ill, and the crew enlisted the aid of a physician aboard the flight," the report said. "The flight crew elected to continue the flight to [Atlanta and] requested that dispatch arrange for emergency services to meet the airplane. ... The remaining two crewmembers conducted the entire night flight without the benefit of a customary break period. Throughout the flight, the crew made comments indicating that they were fatigued and identified fatigue as their highest threat for the approach, but [they] did not discuss strategies to mitigate the consequences of fatigue."

Atlanta had clear skies and calm winds, and the crew briefed for a landing on Runway 27L. However, an approach controller later told the crew to expect to land on Runway 26R. Then, shortly after they briefed for the approach to Runway 26R, the pilots were "reassigned to Runway 27L," the report said. "At about the outer marker for that runway approach, the [Atlanta] tower controller offered Runway 27R, which the crew accepted."

The first officer became preoccupied in trying to tune the instrument landing system (ILS) frequency. The crew had not briefed the approach to Runway 27R and were not aware that the ILS (instrument landing system) and the approach light system for Runway 27R were not available.

The captain told investigators that as he maneuvered for the side-step to Runway 27R, he saw the precision approach path indicator and lined up on "the brightest set of lights"

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that he saw. "He stated that he saw 'bright edge lights and centerline lights' and thought he had the runway in sight," the report said. The 767, however, was landed on Taxiway M, which is north of, and parallel to, Runway 27R, and was unoccupied at the time.

Flight tests conducted by investigators showed that, without the aid of the approach lights and the ILS, there are several misleading visual cues for an approach to Runway 27R. "These cues included numerous taxiway signs along the side of Taxiway M, which from the air appeared to be white and could be perceived as runway edge lights," the report said. "The alternating yellow and green lights in the ILS critical area provided the appearance of a runway centerline."

These lights, the unavailability of the approach lights and the ILS, and the crew's decision to accept a late runway change were cited as factors that contributed to the taxiway landing. NTSB concluded, however, that fatigue was the probable cause of the crew's misidentification of the correct landing surface. The incident occurred at 0605 local time — more than 14.5 hours after the 767 left the gate at Rio — and the captain had been awake for more than 22 hours.

TURBOPROPS

'Look See' Ends in Excursion

Beech King Air B200. Substantial damage. No injuries.

he flight plan filed by the pilot for the business trip from Des Moines, Iowa, U.S., to Sioux City, Iowa, the morning of Jan. 19, 2010, included a destination airport and an alternate airport that had weather conditions below the minimums prescribed by the general operating and flight rules of U.S. Federal Aviation Regulations Part 91.

"While en route, the destination airport's automated observing system continued to report weather below approach minimums, but the flight crew continued the flight," the NTSB report said, noting that company procedures allowed a "look see" approach to minimums. "The allowance of a 'look see' approach essentially negates the procedural risk mitigation afforded

by requiring approaches to be conducted only when [the reported] weather is above approach minimums."

The crew requested and received clearance to conduct the ILS approach to Runway 31 at Sioux City's Gateway Airport, which was reporting 1/2 mi (800 m) visibility and 100 ft vertical visibility. The airport traffic controller subsequently told the crew that the runway visual range for touchdown and rollout was 1,800 ft (550 m).

The King Air was at a height of less than 100 ft when the copilot told the pilot that the airplane was not lined up with the runway. The pilot responded, "Those are edge lights. ... Oh, yeah, I see what I'm doing." The pilot increased power and attempted to realign the airplane, but the King Air touched down about 2,800 ft (853 m) beyond the threshold of the 9,000-ft (2,743-m) runway with the left main landing gear in the grass. The airplane then veered off the runway. The nose landing gear collapsed, and the nose section and lower fuselage skin were damaged, but the pilots and their two passengers escaped injury.

Broken Insulation Causes Fire

Convair 580. Minor damage. No injuries.

he aircraft was descending to land at Tamworth, New South Wales, Australia, during a training flight the night of Jan. 7, 2010, when the flight crew saw smoke emanating from beneath the instrument panel. "The crew donned oxygen masks, but the safety pilot's hose for the portable oxygen bottle was split," said the report by the Australian Transport Safety Bureau. "The safety pilot moved to the rear of the aircraft to avoid the smoke."

The smoke intensified, and flames appeared. The pilots used a portable fire extinguisher to suppress the flames, declared an emergency and landed the Convair without further incident.

Investigators found that a piece of insulation material had detached and fallen onto a panel light rheostat and surrounding wires. "The rheostat had developed a 'hot spot,' and, consequently, the insulation absorbed the heat and transferred it to the wires, which produced smoke and flames," the report said.



Head-to-Head on the Runway

Bombardier Q400. No damage. No injuries.

urface winds at Exeter Airport in Devon, England, were from 150 degrees at 9 kt the night of Oct. 30, 2009, when the airport traffic controller cleared the flight crew to taxi to Holding Point Alpha, which is at the approach end of Runway 08. The taxi clearance was read back correctly; but during the pushback, the crew did not notice a radio transmission clearing a Boeing 737 crew to land on Runway 26.

As the Q400, with 58 passengers and four crewmembers aboard, neared Runway 08, the copilot told the commander that he saw moving lights on the runway. "The commander said that he believed it was a car," said the report by the U.K. Air Accidents Investigation Branch (AAIB). "Disagreeing, the copilot said it looked like an aircraft."

The commander had taxied the aircraft onto the runway when he remembered that they had been cleared only to the holding point. The controller was monitoring the 737's landing roll and did not see the Q400 move onto the runway. At this time, the 737, with only the two pilots aboard, was decelerating through about 50 kt; the crew did not see the Q400 until the 737 had slowed to taxi speed. The 737 crew then turned onto the second-to-last taxiway on Runway 26.

The report said that the Q400 crew's unfamiliarity with the airport, inadequate monitoring and fatigue likely were factors in the incident. The pilots told investigators that they had a "broken night's sleep" and had encountered delays during the first three flights of the day. "Both crewmembers were likely to have been tired after the broken night's sleep and a busy day trying to regain schedule," the report said.



PISTON AIRPLANES

Incapacitation During Test Flight

Piper P-Navajo. Destroyed. Two fatalities.

nstrument meteorological conditions (IMC) prevailed when the Pressurized Navajo took off from Oxford, England, for a postmaintenance test flight on Jan. 15, 2010. The pilot

was an airline training captain with more than 12,500 flight hours; he also was active in general aviation. The passenger, who recently had purchased the aircraft, was a private pilot with 93 flight hours and was being trained for multiengine and instrument ratings.

Recorded air traffic control (ATC) radar returns showed that the Navajo climbed to about 1,500 ft and then descended in an erratic path to 900 ft, where radar contact was lost. There was no reply to several radio transmissions from ATC. Witnesses saw the aircraft emerge from the 200-ft broken ceiling, descend rapidly into a field and burn.

"The postmortem examination showed that the [54-year-old] pilot had severe coronary heart disease, and there was evidence to suggest that he may have been incapacitated, or died, prior to the collision with the ground," the AAIB report said.

The passenger had been receiving flight training in a Piper Seneca. "His instructor gave his opinion that at his stage of training and experience, he would be unlikely to have been able to successfully fly a Piper Navajo aircraft in IMC," the report said.

Control Lost on Snowy Runway

Cessna 402C. Substantial damage. No injuries.

he pilot recalled that there was a thin layer of snow on the runway when he initiated takeoff for a cargo flight from Canyonlands Airport in Moab, Utah, U.S., the afternoon of Dec. 22, 2009. However, the airport manager and other witnesses told investigators that there was 4-5 in (10-13 cm) of snow on the runway and that it was snowing heavily.

The NTSB report indicates that snow removal had been discontinued at an unspecified distance from the approach threshold. The pilot said that he rejected the takeoff after losing directional control of the 402 when it encountered the deeper snow. The nose landing gear collapsed when the airplane veered off the left side of the runway.

The airport certification manual requires no more than 2 in (5 cm) of accumulation

before snow is removed from a runway and that the airport be closed if accumulation exceeds 2 in. The airport manager said, however, that he was "waiting for the snow to let up" to complete snow removal and was in the process of closing the airport when the accident occurred.

Freezing Rain Coats Windshield

Beech 58 Baron. Substantial damage. No injuries.

he Baron encountered severe icing from unforecast freezing rain during a charter flight the afternoon of Jan. 3, 2009. Airspeed began to decrease as ice accumulated rapidly on the airplane, and the pilot diverted to the nearest airport, in Brainerd, Minnesota, U.S.

"He made two low passes over the airport while trying to clear ice off of the windshield," the NTSB report said. "However, the windshield alcohol deice [system] could not keep up with the ice accumulation."

The pilot told investigators that he had to look out the side window to align the Baron on approach but was unable to judge his height above the concrete runway, which had a light color that blended with the blowing snow. The airplane touched down hard on the runway, but the pilot was able to taxi it to the ramp. Examination of the Baron revealed that the right wing spar was bent, and the wing had been pushed into the fuselage.

HELICOPTERS

Engine Switches Mispositioned

Eurocopter EC 135-P2. Substantial damage. Three minor injuries.

he emergency medical services helicopter was departing from Pottsville, Pennsylvania, U.S., to respond to a motor vehicle accident the night of May 30, 2008, when the pilot realized that something was wrong. "The helicopter would neither climb nor accelerate normally," said an NTSB report issued in October 2010.

The helicopter descended over downsloping terrain, struck the top of a truck about 100 ft from the helipad, settled to the ground and rolled onto its left side. The pilot, flight nurse and flight paramedic sustained minor injuries.

"No preimpact mechanical anomalies of the helicopter, engines or engine switches were found," the report said. "As part of the pre-takeoff confirmation check, the pilot was required to ensure that both main engine switches were in the 'FLIGHT' position; however, onboard recorded data revealed that the no. 2 main engine switch was in the 'IDLE' position during takeoff."

Corrosion Causes False Warnings

Agusta Westland 139. No damage. No injuries.

he helicopter was en route in IMC from North Denes Heliport near Great Yarmouth, England, to transport eight passengers to a North Sea drilling platform on Dec. 23, 2008, when many flight, engine and systems displays were lost. The flight crew also received several engine caution messages and a warning of fire in the rear baggage compartment, said a report issued by the AAIB in October 2010.

The crew declared an emergency and turned back to the heliport. The anomalies continued, and the crew decided to descend below the clouds, estimating that the base was at about 1,200 ft. The helicopter broke out of the clouds at 200 ft, and the crew "assessed that the sea state was suitable for ditching and briefed for such an event, in case it proved necessary," the report said.

The AW139 was met by another company helicopter whose crew reported no sign of smoke or fire. The incident helicopter then was landed safely at the heliport.

"The spurious warnings and the loss of indications were found to be due to corrosion in an avionics module," the report said. "The corrosion had occurred due to the module cabinet being cooled by unfiltered, nonconditioned air drawn from intakes on the fuselage underside. The situation was exacerbated by the helicopter being operated in a maritime environment."



Date	Location	Aircraft Type	Aircraft Damage	Injuries
Oct. 1	Teterboro, New Jersey, U.S.	Gulfstream G-IV	minor	11 none
	re from 360 degrees at 12 kt, gusting to 19 rresting system.	9 kt, when the G-IV touched down	long and overran Runway 06	ó into an engineered
Oct. 1	Manteo, North Carolina, U.S.	Cessna Citation 550	substantial	7 minor
The Citatio	on touched down long and overran the w	et runway into Croatan Sound.		
Oct. 2	Nazca, Peru	Cessna 185	destroyed	6 fatal
The single	-engine airplane crashed after losing pov	ver on takeoff for an air tour flight.		
Oct. 5	Nassau, Bahamas	Cessna 402	destroyed	9 fatal
An engine	problem occurred on takeoff, and the 40	2 crashed into a lake during an atte	empted return to the airport	t.
Oct. 6	Minatitlán, Veracruz, Mexico	Cessna Citation 501	destroyed	8 fatal
Γhe Citatio	on ISP descended out of control into the s	ea shortly after takeoff.		
Oct. 15	Lady Barron, Tasmania, Australia	Gippsland GA-8 Airvan	destroyed	7 serious
Γhe airplar	ne struck a mountain while returning to t	he departure airport due to advers	e weather.	
Oct. 21	Bukavu, Democratic Republic of Cor		destroyed	2 fatal
Γhe airplar	ne crashed after an engine failed on taked	_		
Oct. 25	Kirby Lake, Alberta, Canada	Beech King Air A100	destroyed	3 fatal, 7 NA
The King A	Air crashed short of the runway during an	approach in freezing rain.	ŕ	
Oct. 25	Morton, Washington, U.S.	Cessna 340A	destroyed	3 fatal
The airplar	ne crashed in mountainous terrain after t	he pilot reported an engine failure.	•	
Oct. 26	Miami, Florida, U.S.	Boeing 757-200	substantial	160 none
	turned to Miami after a rapid decompres	•		ft door was found torn.
Oct. 27	Wami, Indonesia	PZL-Mielek Skytruck	destroyed	5 fatal
	ne crashed in adverse weather after delive	·	0.031.0).00	5
Nov. 3	Meeker, Colorado, U.S.	Bell 206B	substantial	1 fatal, 1 serious
	ver was killed when the helicopter struck			. rataly i serious
Nov. 4	Guasimal, Cuba	ATR 72-212	destroyed	68 fatal
	ne crashed in mountainous terrain shortly		•	oo latai
Nov. 4	Singapore	Airbus A380	substantial	459 none
	returned to Changi Airport after an uncor			450 Holic
Nov. 5	Karachi, Pakistan	Beech 1900C-1	destroyed	21 fatal
	ne crashed near a residential area after ar		destroyed	21 10(0)
Nov. 7	Solukhumbu, Nepal	Aerospatiale AS 350B-3	destroyed	2 fatal
	pter crashed during an attempt to rescue	•	destroyed	Ziatai
	·		destroyed	6 fatal 22 NA
Nov. 7	Zalingei, Sudan	Antonov 24B	destroyed	6 fatal, 32 NA
-	ne veered off the runway and burned afte		minor	1 minor 41 nana
Nov. 9	Laredo, Texas, U.S.	Boeing 787	minor	1 minor, 41 none
	crew conducted an emergency landing aft	·		
Nov. 13	Andahuaylas, Peru	Swearingen Metro III	substantial	19 none
	reorological conditions prevailed when the	·	_	2
Nov. 19	Birmingham, England	Cessna Citation 501	destroyed	2 serious
and burne				_
Nov. 24	Monterrey, Mexico	Antonov 32B	destroyed	5 fatal
•	ne banked right after lift-off and crashed	·		
Nov. 28	Karachi, Pakistan	Ilyushin 76TD	destroyed	12 fatal
The cargo	plane crashed into a building under cons	truction shortly after takeoff. The f	atalities included four const	ruction workers.
Nov. 29	Cagayan, Luzon, Philippines	Beech Queen Air A65	destroyed	13 NA
rhe Queer	n Air stalled and crashed in a river after bo	oth engines failed during a schedul	ed flight. No fatalities were i	reported.