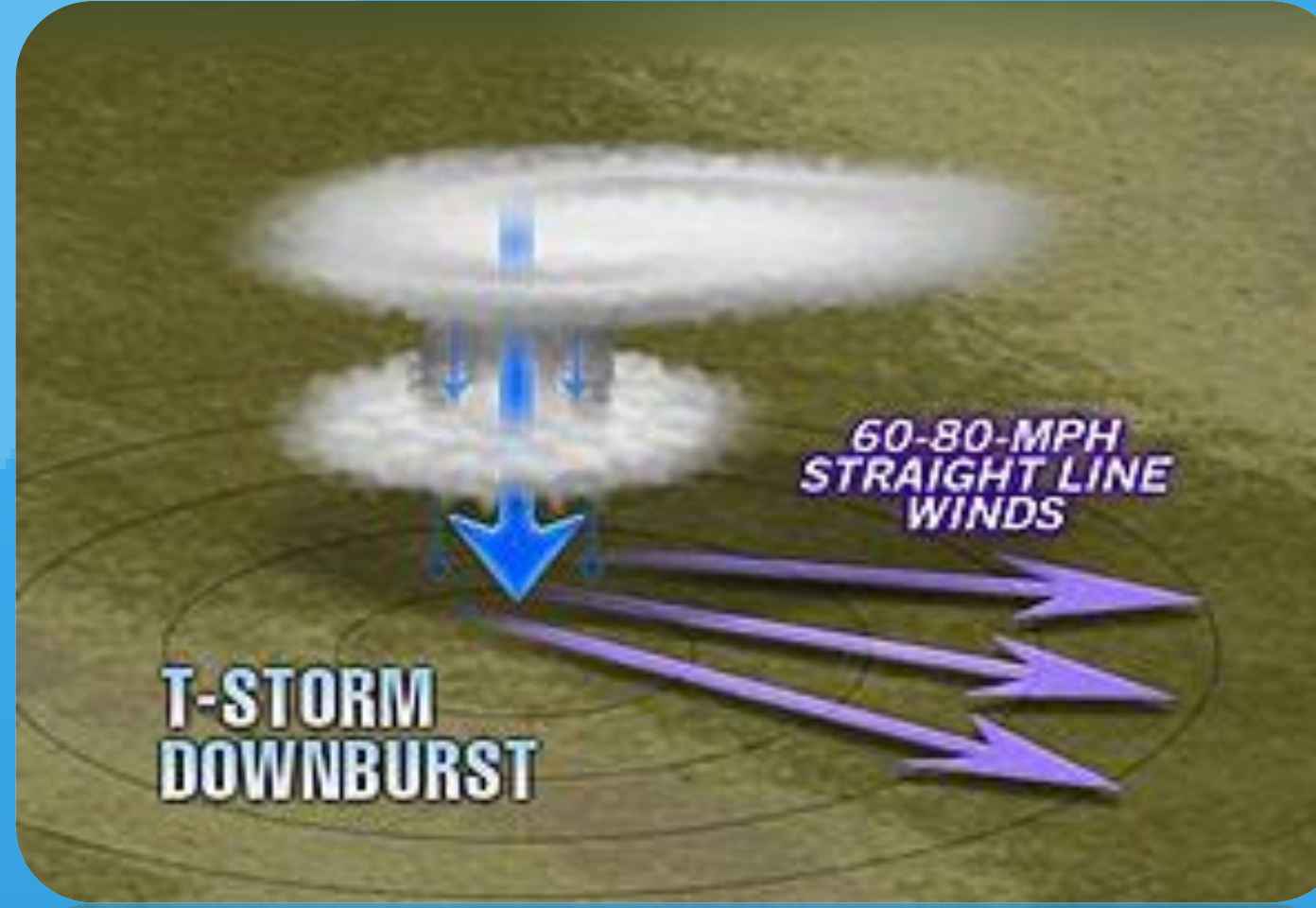


AVIATION DISASTER: PAN AM FLIGHT 759

Pan Am Flight 759, a Boeing 727 aircraft, was scheduled to fly from New Orleans to Las Vegas on July 9, 1982. Just after takeoff, the aircraft came plunging down into a nearby neighborhood. Then came a fireball and explosion which utterly disintegrated the aircraft. The crash scene stretched three blocks long and two blocks wide. All 146 souls on the plane and 8 others on the ground were lost on this tragic day.

HOW IT WENT DOWN:

Captain Kenneth L. McCullers and his three companions: the co-pilot, flight engineer, and a Pan Am crew member were on the flight deck of Flight 759. McCullers steered cautiously towards Runway 10 as they positioned for takeoff. At 4 pm, he and his flight crew heard the ground control advise another approaching aircraft of low-level wind shear. Captain McCullers remarked that the flight was liable to be "heavy" to his crew as they went through the routine procedures right before takeoff. At 4:07 pm with a fully loaded plane and 8000 gallons of jet fuel, Flight 759 began its takeoff roll with gusty and rain laden winds swirling directly at its nose. Barely at 100 ft. in altitude, the plane was forced down onto the ground by a microburst. Losing altitude and in a desperate attempt to save lives on the ground, Captain McCullers tried to navigate his aircraft into a nearby canal. But the plane clipped tree tops and snapped a power line, sending it into a cartwheel and skid before exploding with 8000 gallons of jet fuel.



Thunderstorm downburst affecting aircrafts.

WHAT IS A MICROBURST?

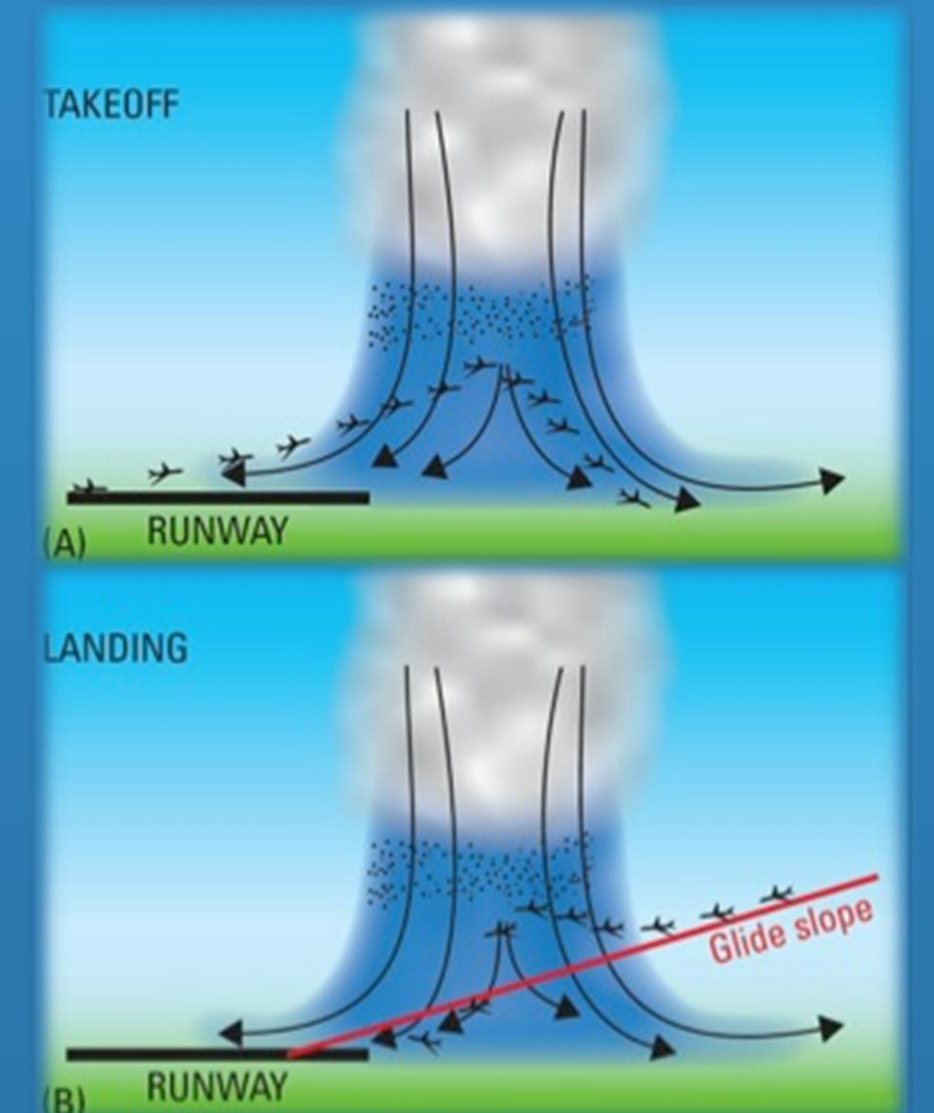
A microburst is a downdraft of sinking air that is less than 2.5 miles in scale in a thunderstorm. While microbursts can pose a threat to life and property, they certainly pose a significant threat to aviation.

Some factors that cause microburst development are:

- Mid-level dry air entrainment into a thunderstorm
- Evaporative cooling beneath thunderstorm cloud base
- Sublimation
- Existence of heavy rain and/or hail in the thunderstorm
- Surface wind speeds can reach well over 60 mph

HOW DOES IT AFFECT A PLANE?

- On takeoff, the plane experiences initial gain in lift due to increased headwind but then rapidly loses lift as it moves through the core of the microburst.
- During landing, the plane gains lift due to increased headwinds taking it off the glide slope the pilot uses as a guide to land. Pilot reduces power, then the plane is hit by a tailwind which may cause a crash.



Aftermath of Pan Am Flight 759 crash. Courtesy of: THE TIMES-PICAYUNE

IMPACTS:

- Second worst aviation crash in U.S. history at the time
- 146 people onboard and 8 people on the ground died
- 6 homes destroyed and 5 others with immense damage
- Pan Am & Federal Government faced lawsuits over \$3 billion
- Pan Am ceased operations in 1991 after declaring bankruptcy

"It was like a bomb had landed in the middle of our city"
-Police Chief Nick Congemi

LESSONS LEARNED:

The National Transportation Safety Board concluded that microburst-induced wind shear was the cause of the Flight 759 disaster. This tragic event led to the development of sophisticated equipment that incorporates Doppler radar to predict severe downdrafts. Wind-shear detection systems were mandated by the U.S. Federal Aviation Administration in all commercial aircraft by 1993.

THAT DAY IN KENNER

On July 9, 1982, Pan Am Flight 759 lifted off from New Orleans International Airport only to be blown back down in a Kenner neighborhood by a violent form of wind shear known as a microburst. All 146 on board were killed, and eight on the ground died.

MICROBURSTS IN STORMS

- 1 Warm, dry air mass enters the storm.
- 2 Rain evaporates into the dry air, cooling it.
- 3 Since cool air is heavier, it drops.
- 4 The cooled air plunges to the ground creating a dangerous vortex of winds in excess of 100 mph.
- 5 Plane encounters microburst, losing altitude and speed.
- 6 Left wing hits trees at altitude of 55 feet.
- 7 Plane rolls to the left, wing cuts turbine.
- 8 16 homes are destroyed or damaged beyond repair by the wreck.

INSIDE THE MICROBURST

Head wind lifts the plane above normal path. While pilot tries to compensate, the downdraft causes plane to pitch. Vertical winds. Tail wind reduces plane's speed even more, causing it to crash.

THE TRAGEDY

Location	Damage	Deaths	Injuries
A Flight 759	Destroyed	146	0
B 1628 Fairway	Destroyed	2	1
C 1629 Fairway	Destroyed	0	0
D 1631 Hudson	Severely burned	0	0
E 1633 Hudson	Destroyed	4	0
F 1710 Hudson	Structural damage	0	0
G 1630 Hudson	Front levelled	0	0
H 1701 Taylor	Structural damage	0	0
I 1701 Taylor	Sliced in half	0	0
J 1700 Taylor	Destroyed	2	1
K 1700 Taylor	Structural damage	0	0
L 1713 Taylor	Structural damage	0	0
M 1704 Taylor	Structural damage	0	0
N 1706 Taylor	Destroyed	0	0
P 1708 Taylor	Severely burned	0	0

Courtesy: Encyclopedia Britannica and NOAA

HOPE IN THE MIDST OF DISASTER: HEROIC CREW & A MIRACLE BABY

Though the damage was catastrophic, McCullers and his co-pilots last second decision to veer the plane away from Kenner, a residential New Orleans suburb, and into a nearby canal saved many lives. If it had not been for this courageous act in the face of death, the surrounding neighborhoods would have been completely wiped out. Captain McCullers had previously been commended for bringing down another passenger jet to safety when it lost all electrical power in 1979.

While searching through the debris field for potential survivors, Jefferson Parish Deputy Gerald Hibbs discovered 16 month old Melissa Trahan trapped under a mattress, which shielded her from the scorching heat of the fire and other debris. She came to be known as the "miracle baby," a beacon of hope in the face of massive devastation.

16-month-old is found alive beneath a sofa