NEW ORLEANS (AP) — Nine months after Pan American Flight 759 crashed on takeoff, killing 154 people, a federal agency will issue a report in Washington Monday on why it happened.

The report, based on a series of hearings at Kenner, a suburb of New Orleans, will be produced at an open hearing by the National Transportation Safety Board at the Washington headquarters.

Safety Board conclusions could loom large in more than 85 suits filed by relatives of the dead and others claiming more than $2 billion in damages.

No details on the report were made public beforehand, but airline pilots have said the Boeing 727, taking off from New Orleans International in the rain July 9, 1982, probably ran into a strong wind shear or microburst.

At low altitude, during a landing or takeoff the abrupt wind changes in a shear or microburst can lead to disaster. At higher altitude, the plane gets bumped around but has enough space to recover.

The 727 hardly got above 100 feet after leaving the runway on its 4:10 p.m. takeoff before it plunged into a residential area of Kenner. The crash killed 146 on the plane, including an unborn 7-month-old fetus counted as a victim by the coroner. Eight more died in a dozen wrecked houses.

It was the second worst airliner crash in U.S. aviation history.

Microbursts, a lethal weather phenomenon, cannot be seen with normal radar. They are shortlived and cover small areas. But they generate wind shears up to 90 miles an hour that give a pilot a great many sudden problems.

A microburst is a downburst of air which fans out in all directions when it hits the earth, creating dramatic changes in wind speed and direction for a plane that blunders into it.

For example, a plane sliding in for a landing is moving at about 140 miles an hour. If it hits a full-blown microburst, it will encounter within the span of 35 seconds an abrupt strong headwind, a downburst and an equally sudden and strong tail wind.

Recent studies show microbursts are most likely to be embedded in rain storms; except in dry western states where they develop in clear air and look rather like a column of haze.

Doppler radar, which reads echoes from rain drops, dust particles or even insects being whipped around in the air, can spot microbursts, but not many airports have it.