

AMERICAN AIRLINES, INC.
LaGuardia Field
New York

June 24, 1948

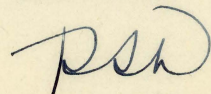
To: All Directors
American Airlines, Inc.

Mr. C. R. Smith has asked me to write you regarding the facts which we at this time know about the United Air Lines accident on June 17 at Mt. Carmel, Pennsylvania. It is not our policy to comment publicly about an accident to another airline. I, therefore, ask you to consider this strictly personal and not to pass it along or leave it lying around as I know you will appreciate American Airlines cannot afford to be quoted on remarks concerning an accident to another airline.

1. The airplane had been cruising at about 17,000 feet in perfectly normal weather and with only scattered clouds between it and the ground and had reported its position near Philipsburg, Pennsylvania on course and with everything normal. A radio report from the pilot at 12:24 p.m. that the airplane would be ready for quick turn-around at New York indicates that he felt the plane was OK. The pilot reported his intention to start descent approach to New York, intending to reach about 11,000 feet over Allentown, Pennsylvania.
2. Shortly thereafter, the airplane presumably started its descent and it has been estimated that at approximately 13,000 feet some event or events occurred within the airplane which thereafter seriously affected its flight control.
3. At that time, the pilot endeavored to transmit a radio message, advising of some distress. This message is reported to be badly garbled and has been subject to a number of interpretations, no one of which is sufficiently clear to be indicative.
4. Events thereafter have been tentatively described from the testimony of witnesses and the evidence at the scene of the crash. The airplane is reported to have descended at a high rate of speed in a continuous gradual turn to the left -- the equivalent of which has been estimated would accompany a 5° bank. In this descent, the airplane passed directly over Sunbury, Pennsylvania, which has a very adequate airport, with good visibility applying, the airplane being clearly seen from the ground - and still gave no indication of attempting to land there. The airplane also passed over a substantial number of other excellent pastures and fields for landing without selecting any of them or deviating from its gradual left turn. It is believed that no effort to land was made in the valley in which the crash finally occurred.
5. At a point eleven to fifteen miles back from the scene of the accident at an altitude approximating the tops of the hills (about 2,000 feet) the airplane gradually levelled off and proceeded to fly at that altitude without major deviation except for its continuing left turn over the small airport at Shamokin, Pennsylvania and on down the valley to the location of the crash.
6. The crash occurred after an apparently involuntary and badly executed steep bank to the right, wherein the airplane apparently stalled and fell off, cart-wheeling on its right wing tip. The airplane at that time was headed directly at a ten-story colliery building below its roof line, but had an easy flight path to the left - which it did not select.

7. The damage during the crash was concentrated and extremely severe, the destruction being considered as severe as any we have ever witnessed.
8. The investigation to date has accounted for all important parts of the aircraft at the scene of the crash.
9. Competent witnesses have indicated that the airplane appeared to be in complete flying condition...engines sounded normal...no mechanical deficiencies were evident - and no external smoke or fire was evident.
10. It has therefore been tentatively concluded that the airplane was a normally functioning flying machine in all respects but that due to cause or causes unknown, the crew was partially or totally incapacitated - and the airplane during its descent and level flight and crash was without competent guidance.
11. Recent difficulties with the PB10 electric auto-pilot (not used on American Airlines) has caused United to disconnect such units in all their DC-6's but no evidence at the scene of the crash has indicated that this unit malfunctioned or was involved in an electrical short with resultant smoke in this accident.
12. A recent occurrence with a TWA Constellation, involving the incapacitating of the crew with inadequate ventilation and fuselage carbon dioxide fire extinguisher operation following smoke without fire has called prominent attention to the significance of similar conditions as a possible factor in the UAL accident.
13. There is as yet no indication of a positive finding to account for the erratic and apparently uncontrolled behavior of the airplane during its descent, level flight and crash - but the following items are being thoroughly investigated as possible conditions which might cause such unusual behavior.
 - a) With the condition of inadequate ventilation, smoke - occasioned by electrical shorting or other origin - causing blinding and choking and physical incapacity of the crew.
 - b) The above situation accompanied by a major discharge of carbon dioxide in the airplane under floor spaces. Such CO₂ discharge under restricted ventilating conditions might have occurred for reasons unknown without any smoke or smoke warning.
 - c) Simultaneous physical incapacity of the crew members occasioned by poisoned food, etc.
 - d) The presence of some explosive - toxic or smoke - creating object or material in front under loaded cargo adjacent to the cockpit - possibly, again, accompanied by manual CO₂ operation in the cockpit.

The above findings and hypotheses are purely conjectural at this time. They must not be taken as fact - and out of consideration for the people who have extended to us every cooperation in divulging their tentative findings, they should not be discussed with others. Immediate steps are being taken to guard against the possible reality of any of the above hypotheses.



R. S. Damon