

Findings

On the basis of all available evidence the Board finds that:

1. The companies, the aircraft, and flight crews were properly certified.
2. Preparation for both flights was complete and routine.
3. The flights were properly dispatched on IFR flight plans, over accepted high-altitude direct routes.
4. Approaching Daggett, TWA 2 requested its company radio to obtain 21,000 feet as an assigned altitude, or 1,000 on top.
5. Company radio requested 21,000 feet IFR from ARTC. This was denied by ARTC. Request was then made for 1,000 on top. This was approved and clearance issued. The flight climbed to and proceeded at 21,000 feet.
6. As an explanation for the denial of 21,000 feet, TWA 2 was furnished pertinent information on UAL 718.
7. The last position report by each flight indicated it was at that time at 21,000, estimating the Painted Desert line of position at 1031.
8. The Salt Lake controller possessed both position reports at approximately 1013, at which time both flights were in uncontrolled airspace.
9. Traffic control services are not provided in the uncontrolled airspace and according to existing Air Traffic Control policies and procedures the Salt Lake controller was not required to issue traffic information; none was issued voluntarily.
10. A general overcast with some breaks existed at 15,000 feet in the Grand Canyon area.
11. Several cumulus buildups extending above flight level existed; one was nearly over Grand Canyon Village and others were north and northeast in the area of the collision.
12. The collision occurred at approximately 1031 in visual flight rule weather conditions at about 21,000 feet.
13. The collision in space was above a position a short distance west of the TWA wreckage area, 17 miles west of or approximately 3-1/2 minutes' flying time from the Painted Desert line of position.
14. Under visual flight rule weather conditions it is the pilot's responsibility to maintain separation from other aircraft.
15. At impact the aircraft relative to each other converged at an angle of about 25 degrees with the DC-7 to the right of the L-1049. The DC-7 was rolled about 20 degrees right wing down and pitched about 10 degrees nose down relative to the L-1049.
16. There was no evidence found to indicate that malfunction or failure of the aircraft or their components was a factor in the accident.