

Reg 1754 A

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

JCA 84AA-034

ISSUED: September 20, 1985

Forwarded to:

Honorable Donald D. Engen
Administrator
Federal Aviation Administration
Washington, D.C. 20591

Adopted
9/10/85

SAFETY RECOMMENDATION(S)

A-85-59 through -65

About 1117:38 Pacific daylight time, on August 24, 1984, Wings West Airlines, Flight 628, a Beech C-99 (N6399U) and Aesthetec Inc., Rockwell Commander 112TC, N112SM, collided in midair near San Luis Obispo, California. The weather at the time of the collision was clear. Flight 628 had just departed San Luis Obispo County Airport en route to San Francisco International Airport, California, and was climbing on a westbound heading. The Rockwell Commander had departed Paso Robles, California, on a training flight and was descending toward the San Luis Obispo County Airport on an eastbound track. The airplanes collided head-on at an altitude of about 3,400 feet. The wreckage of both airplanes fell into an open field about 8 nmi west northwest of the San Luis Obispo County Airport. All 17 persons, including the 2 pilots and 13 passengers onboard Flight 628 and the 2 pilots onboard the Rockwell, were killed. 1/

The Safety Board's investigation disclosed that the pilots of both airplanes failed to follow the recommended communications and traffic advisory practices for uncontrolled airports contained in the Airman's Information Manual (AIM). The Rockwell Commander, with a certified flight instructor giving an aircraft checkout to another rated pilot, was proceeding inbound to San Luis Obispo County Airport on the localizer course to runway 11. It is possible that the accident might have been avoided if the flightcrew of the Rockwell Commander had informed the Los Angeles Air Route Traffic Control Center (ARTCC) of their intentions, as recommended in the AIM. Under these circumstances, the controller not only would have known of the presence of the Wings West aircraft, he also would have known that the Rockwell Commander's crew intended to fly toward the airport and descend on the localizer course. As a consequence, the controller might have issued an aircraft safety advisory during his first communication with Flight 628 and suggested an alternative course of action for the flightcrew to alter its course well to one side of the localizer.

1/ For more detailed information, read Aircraft Accident Report--"Midair Collision of Wings West Airlines Beech C-99 (N6399U) and Aesthetec, Inc., Rockwell Commander 112TC, N112SM, near San Luis Obispo, California, August 24, 1984" (NTSB/AAR-85/07).

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Further, the AIM recommends that aircraft departing uncontrolled airports monitor the UNICOM frequency until 10 miles from the airport. The investigation disclosed that Flight 628 discontinued monitoring the San Luis Obispo UNICOM frequency when it was only 5 miles from the airport. As a result, flight 628 most likely did not hear the communication, "Inbound approaching Dobra," which was transmitted by the Rockwell Commander. Had the flightcrew of Flight 628 been monitoring the UNICOM, they should have become aware of traffic ahead of them proceeding in the opposite direction toward the airport. Although the time available was limited, both flightcrews then might have made their respective positions and intentions known to each other in time for one or both to take appropriate corrective action. Although it is not possible to determine whether pilot communication on the UNICOM frequency would have alerted each flightcrew of the other aircraft in sufficient time to avoid the accident, the Safety Board believes that the recommended practice serves a valuable safety purpose and that it should be required by the Federal Aviation Administration (FAA).

The Safety Board is concerned that other pilots and flightcrews may be conducting or practicing instrument approaches and departures at uncontrolled airports without communicating with an ATC facility and broadcasting their intentions on the UNICOM frequency. Consequently, the Safety Board believes that the FAA should require pilots to adhere to the recommended communications and traffic advisory practices and the procedures for the conduct of a practice instrument approach at uncontrolled airports contained in the AIM.

The Safety Board is aware that the FAA has identified other airports in the United States in which the standard instrument approach procedure (SIAP) course also is utilized for a standard instrument departure (SID) procedure. The Safety Board believes that where feasible the SIAPs and SIDs for these facilities should be modified to eliminate course conflicts. At those facilities where modification is not possible, a cautionary note should be affixed to the SIAP and SID charts in order to alert pilots to the possibility of converging opposite direction traffic and to advise pilots to contact appropriate ATC facilities for traffic advisories when conducting VFR approaches or departures. The Safety Board, on November 20, 1984, issued Safety Recommendation A-84-126 which recommended that such information be added to the SIAP and SID for the San Luis Obispo County Airport. The Safety Board believes that similar action is needed at other airports where approach and departure conflicts possibly exist.

It also concerns the Safety Board that the flightcrew of Flight 628 elected to wait until they were airborne before communicating with the Los Angeles ARTCC and requesting their IFR clearance albeit VFR conditions prevailed. This decision severely limited the time available to the controller prior to the collision to radar identify the flight, to issue it an IFR clearance, and then to provide radar traffic advisory service. Had the flightcrew of Flight 628 obtained an IFR clearance on the ground, or as a minimum, had they requested a discrete beacon code for radar traffic advisory service, the controller's radar

identification task might have been accomplished sooner, and may have shortened the time the controller needed to enter the flight into the IFR system. The Safety Board is aware that many commuter air carrier flights do not utilize radar traffic advisory service when it is available to them. Many such flights are operating at locations which have specific radar programs (i.e., stage II, stage III, etc.), and yet they choose not to participate in them. Although participation in these formal programs is voluntary, the inherent safety enhancement gained by such participation is significant. The Safety Board recognizes that the ability to provide radar traffic advisory service is predicated on factors such as radar tracking limitations, traffic volume, controller workload, and frequency congestion, but believes that nevertheless, commuter air carriers should request radar traffic advisory service where it is available.

The Safety Board repeatedly has recommended that FAA support the development and introduction of an airborne collision avoidance system for all civil aircraft. In June 1981, the Administrator of the FAA announced a national standard for airborne collision avoidance systems. Equipment known as Traffic Alert and Collision Avoidance System (TCAS) was forecast to be available for use on a voluntary basis within 3 to 4 years.

While the TCAS program has moved forward, it has yet to reach a stage where certification and general use is imminent. The Phase I operational evaluation was completed in March 1982. Although the Phase II evaluation originally was scheduled to begin in June 1985, it has not been initiated at this writing. The delay in the Phase II evaluation is attributed to the certification process required to approve the installation of TCAS equipment in the Piedmont B-727 for use in scheduled passenger service. The Phase II evaluation, once initiated, is scheduled to continue for 8 months. The FAA's present forecast for the availability of TCAS equipment for operational use is the second quarter of calendar year 1988. The Safety Board believes that all required research work, operational evaluation, and other developmental efforts should be expedited so as to facilitate introduction of a collision avoidance system at the earliest possible date.

The FAA has announced that there are no current plans to mandate the use of TCAS equipment when it becomes available. The Safety Board is concerned that the effectiveness of TCAS equipment in the prevention of midair collisions will be too limited if there is no requirement to install and use this equipment. The design concept will be realized only when all air carrier aircraft are equipped with a TCAS and are capable of receiving collision threat information and protection against intruder aircraft. The Safety Board believes that the FAA should reevaluate its position on TCAS equipment use and impose a requirement for the installation and use of TCAS equipment on all commercial and commuter air carrier aircraft when it becomes available.

Therefore, the National Transportation Safety Board recommends that the Federal Aviation Administration:

Issue an Air Carrier Operations Bulletin to require certificated air carriers, when conducting passenger revenue operations, to comply with the traffic advisory practices at uncontrolled airports as recommended in the Airman's Information Manual. (Class II, Priority Action) (A-85-59)

Amend 14 CFR Part 91 to require pilots intending to practice an instrument approach at an uncontrolled airport to notify the appropriate air traffic control facility of the type of approach to be flown and to request traffic advisories. (Class II, Priority Action) (A-85-60)

As an interim measure, disseminate the facts, conditions and circumstances, of the midair collision at the San Luis Obispo County Airport, through operations bulletins, aviation periodicals, and accident prevention programs, and urge pilots and flight crews to adhere to the recommended traffic advisory practices and procedures for the conduct of a practice instrument approach at uncontrolled airports in the Airman's Information Manual. (Class II, Priority Action) (A-85-61)


Identify airports where an airplane on a standard instrument approach procedure (SIAP) will be on an opposing flightpath with an airplane departing on a standard instrument departure (SID) and, where possible, modify one or both of the procedures to eliminate potential conflicts between arriving and departing traffic. Where modification is not possible, include a cautionary note on the SIAP and SID charts advising VFR flights intending to conduct practice instrument approaches and departures to contact the appropriate air traffic control facility for traffic advisories. (Class II, Priority Action) (A-85-62)

Amend the operations specifications of commuter air carriers to require that flights transporting revenue passengers either be on an IFR flight plan or at a minimum, have requested radar traffic advisory services, when available. (Class II, Priority Action) (A-85-63)

Expedite the development, operational evaluation, and final certification of the Traffic Alert and Collision Avoidance System (TCAS) for installation and use in certificated air carrier aircraft. (Class II, Priority Action) (A-85-64)

Amend 14 CFR Parts 121 and 135 to require the installation and use of Traffic Alert and Collision Avoidance System (TCAS) equipment in certificated air carrier aircraft when it becomes available for operational use. (Class III, Longer Term Action) (A-85-65)

BURNETT, Chairman, GOLDMAN, Vice Chairman, and BURSLEY, Member, concurred in these recommendations.



By: Jim Burnett
Chairman