



National Transportation Safety Board

Washington, D.C. 20594
Safety Recommendation

Date: December 8, 1987

In reply refer to: A-87-115

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On March 31, 1987, about 0958 local time, a Cessna 172 that had departed Metropolitan Oakland International Airport (OAK) collided with a Piper PA-32 cargo flight that was cleared to land at the airport. Visual meteorological conditions prevailed. The collision occurred at an approximate altitude of 1,000 feet msl, about 1 mile north of the departure end of runway 33. The airplanes were destroyed, all three persons on the airplanes were killed, and one person on the ground was injured as a result of the collision. ^{1/}

The National Transportation Safety Board believes that because of the daytime, visual meteorological conditions, the pilots of the Cessna and the Piper should have been able to see and avoid each other in time to avoid the accident, and their failure to do so was a primary cause of the accident. However, the Safety Board examined several factors that may have directly or indirectly affected the safe operation of the airplanes, including noise abatement procedures that reduced the separation between arriving and departing airplanes.

OAK is owned and operated by the Port of Oakland. Before the accident, residents of the city of Alameda, located west of the airport, increased their objections to the noise generated by aircraft departing OAK's north runways (9L-27R, 9R-27L, and 15-33). In 1983, the airport began monitoring aircraft noise in and around Alameda. Around the same time, the airport developed a noise abatement plan and published a version of it in a one-page handout, sized as an instrument approach chart, which it distributed to local pilots. The handout stated that: "Your compliance with our noise-abatement procedures is extremely important in maintaining goodwill between Oakland Airport and the surrounding communities."

According to the handout, the procedure called for aircraft departing runway 33, the runway used for most north field departures from OAK, to: "make a 45° right turn as soon as possible after takeoff. Overfly center of San Leandro Bay, avoiding northwest

^{1/} For more detailed information, read Aviation Accident Report--"North Star Aviation, Inc., PA-32, N39614, and Alameda Aero Club, Cessna 172, N75584, Midair Collision, Oakland, California, March 31, 1987" (NTSB/AAR-87/09).

shoreline. Fly to left of Green Tank; then establish departure heading." A map on the reverse side displayed the desired flightpath. The flightpath resulting from this procedure for aircraft departing runway 33 was an approximate heading of 015° followed by a turn to the northwest upon reaching land.

According to the OAK airport manager, complaints about aircraft noise from local residents continued to increase, despite the publication and distribution of the noise abatement procedures. Several months before the accident, a group of citizens formed CEASE, Concerned East Alamedans for Safe and Quiet Environment, in an attempt to reduce airport noise further. CEASE members attended OAK noise abatement meetings and expressed citizen concerns about noise. Several weeks before the accident, an Alameda citizen sued the airport authority for damages from excessive aircraft noise near his house. On January 26, 1987, at a meeting of the Alameda Town Council that was attended by the airport manager and the OAK air traffic manager, over 100 Alameda residents vociferously complained about the adverse effects of noise caused by aircraft departing OAK. At that meeting, the OAK air traffic manager heard the airport operations supervisor direct an assistant to post noise abatement signs around the airport "even if he had to paint them himself."

On February 5, 1987, the airport installed and prominently displayed signs in and around the north field. The signs were posted at 10 locations, including the gate used to drive into the ramp serving the north field, the major taxiway from the ramp to the runways, and on a taxiway, just ahead of the runup area for aircraft departing runway 33. (See figures 6 and 7.) The signs, which were identical, read: "Attention—For noise abatement turn right to 360° until reaching freeway. Fly Quiet." Since the Nimitz Freeway, the freeway referred to in the sign, was located some distance beyond the shoreline, pilots began their turn to the northwest upon reaching the freeway and, as a result, often overflowed the green tank, rather than flying to the left or west of it. Neither noise abatement procedure was published in the Airport Facility Directory.

Aircraft inbound to runways 27R and 27L were unaffected by the "new" noise abatement procedures. According to OAK local air traffic controllers, arriving aircraft were expected to fly east of the green tank, that is, between the green tank and the Oakland Coliseum, another prominent visual landmark.

As a result of the "old" noise abatement procedure, north field departures flew well to the west of the green tank. However, after the signs were posted and the new procedures were implemented in February 1987, pilots began the turn to the northwest at the freeway, not upon reaching the shoreline as had been the flightpath according to the previous procedure. As a result, depending on winds and other factors, departures often flew over or east of the green tank. Since the path of arriving aircraft had not been changed, they continued to fly east of the green tank or, as the Piper did, over it. Therefore, under the new procedure, both departing and arriving aircraft often flew east of or over the green tank, thus reducing the separation between arrivals and departures in a heavily used airspace. Consequently, because of the resultant reduction in the airspace between arriving and departing aircraft, the Safety Board believes that the implementation of the "new" noise abatement procedures contributed to the accident.

In addition, the evidence indicates that the manner in which the procedure was implemented was contrary to Federal aviation regulations. That is, the OAK airport manager placed signs describing the procedure at several locations around the north field without the required Federal Aviation Administration (FAA) authorization. Such

authorization was implicit within the regulation assigning responsibility for airspace management to the FAA. The locations of the signs were such that pilots operating on the north field could hardly fail to notice them. For example, a sign was placed in the center of the gate across the main entrance from outside the airport to the general aviation ramp, and another was placed on the taxiway just ahead of the runup area of runway 33. In addition, the signs did not state that the noise abatement procedure was presented for guidance only, i.e., that it was not mandatory.

The Safety Board recognizes the efforts required by airport managers to maintain harmonious relations between airport users and the surrounding community. However, airport managers are not required to have expertise in airspace use and the safety implications that result from altering airspace-related procedures. Although the OAK airport manager was attempting to cope with what was certainly a great deal of community pressure, the Safety Board concludes that he exceeded his authority and directly and adversely affected air safety by placing the signs describing non-FAA approved noise abatement procedures on the airport property. Therefore, the Safety Board believes that the actions of the airport manager contributed to the accident.

The Federal Aviation Act assigns responsibility for airspace regulation to the FAA. However, the evidence indicates that although the OAK air traffic manager learned of the signs relatively soon after they were posted, he did not object to the signs and did not initiate the necessary steps to order their removal or modification. Rather, he expressed some dissatisfaction with only one aspect of the procedure, i.e., the extent to which pilots would be required to reduce their outside scan to maintain a precise flightpath. Yet, despite his objection to the signs in this regard, he did not pursue their modification, let alone their removal.

Moreover, there is no evidence that the OAK traffic manager informed the controllers under his supervision that the noise abatement procedures were advisory only and not regulatory. For example, 1 day before the accident, a controller denied, for noise abatement reasons, a pilot's request for a straight-out departure from runway 33. Thus, even controllers under the OAK traffic manager's supervision acted as if the procedures were mandatory, which they were not. Consequently, the Safety Board believes that the OAK air traffic manager failed to exercise his authority over the OAK airspace by initiating the steps necessary to modify or remove the noise abatement signs and that the failure of the FAA to take action against the signs also contributed to the accident.

On June 5, 1987, the FAA Administrator sent a letter to FAA Regional Directors reminding them of FAA jurisdiction over airspace management. The Safety Board believes that FAA policy and procedures were sufficiently explicit that such a reminder should not have been necessary. The OAK air traffic manager should have anticipated how the noise abatement signs would affect the flightpaths of airplanes departing runway 33, and he should have alerted the FAA's Regional Office to take action through its airport certification branch to remove the signs. The Safety Board believes that, while it is pleased with the FAA Administrator's action in this regard, in the future all FAA personnel with airspace management responsibility must understand the importance of this responsibility and exercise their authority when necessary to prevent actions that adversely change airspace use. The Safety Board believes that the Administrator's letter of June 5 should promote this understanding.

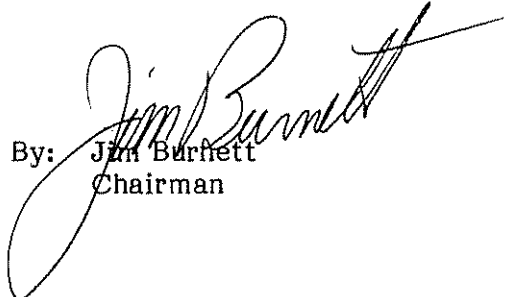
Therefore, the National Transportation Safety Board recommends that the National Association of State Aviation Officials, the Airport Operators Council International, and the American Association of Airport Executives:

Emphasize to airport owners and managers that the statutory authority for airspace management belongs to the Federal Aviation Administration and that all airport noise abatement actions must be coordinated with, and have the approval of, the FAA. (Class II, Priority Action) (A-87-115)

Also as a result of its investigation, the Safety Board issued Safety Recommendation A-87-114 to the Federal Aviation Administration.

The National Transportation Safety Board is an independent Federal agency with the statutory responsibility ". . . to promote transportation safety by conducting independent accident investigations and by formulating safety improvement recommendations" (Public Law 93-633). The Safety Board is vitally interested in any action taken as a result of its safety recommendations and would appreciate a response from you regarding action taken or contemplated with respect to the recommendation in this letter. Please refer to Safety Recommendation A-87-115 in your reply.

BURNETT, Chairman, GOLDMAN, Vice Chairman, and NALL and KOLSTAD, Members, concurred in this recommendation. LAUBER, Member, did not participate.

By: 
Chairman