

NATIONAL TRANSPORTATION SAFETY BOARD  
WASHINGTON, D.C.

ISSUED: May 22, 1974

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Forwarded to:

Honorable Alexander P. Butterfield  
Administrator  
Federal Aviation Administration  
Washington, D. C. 20591  
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SAFETY RECOMMENDATION(S)

A-74-45 thru 52

On April 29, 1972, Los Angeles International Airport (LAX) instituted a preferential runway-use plan, which prohibits most aircraft operations east of the airport from 11:00 p.m. to 6:00 a.m. daily.

During these hours, aircraft which are not certificated under 14 CFR 36, must approach and land from west to east on inboard runways 6R or 7L. Aircraft taking off must do so to the west, via runways 24L or 25R. Those aircraft which comply with Part 36 may land to the west only when weather or wind conditions prohibit use of runways 6R or 7L. These aircraft may take off to the east only when weather or wind conditions make it necessary. When weather or wind conditions make it necessary to land to the west, aircraft not meeting the requirements of Part 36 are denied the right to land at Los Angeles International Airport.

The National Transportation Safety Board has received correspondence from the Allied Pilots Association and the Air Line Pilots Association, who claim that approaches during the curfew hours are dangerous and derogate safety. These groups contend that the plan makes it necessary for pilots to --

execute downwind approaches and landings, encounter opposing traffic flow, operate in fog which often forms over the western approaches during nighttime hours, and rely on nonstandard approach light systems.

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The groups also contend that there is:

a lack of visual cues over the "black hole" of the Pacific, poor weather reporting during periods of nonhomogeneous fog conditions, and an absence of outer markers or locators which necessitates split navigation receivers at a time when the aircraft should be beginning a stabilized approach.

As a result of the above allegations and a TWA Boeing 707 accident at Los Angeles International Airport on January 16, 1974, the Safety Board investigated the "East Arrival" procedures.

Because of recent court decisions and the potential economic impact of existing and probable lawsuits, the Board of Airport Commissioners of the City of Los Angeles was forced to institute the "East Arrival" procedures. The program has been in operation for almost 1 year and the citizens of the communities involved remain opposed to approaches and landings to the west.

The procedures, as promulgated by the FAA, were found to be in accordance with established criteria. However, it was found that error-producing factors may exist in some areas, giving validity to some of the allegations.

The approach lighting system for runway 6R is nonstandard. The approach lights extend westward 1,400 feet from the approach end of the runway. The runway alignment indicator lights (RAILS-sequence flashers) extend 800 feet further for a total of 2,200 feet. The standard total length is 3,000 feet. In addition, the first RAIL (approaching from the west) is almost 70 feet below the other RAILS, which are located on top of the sand dune. The second RAIL is about 35 feet below the others. The approach lights for both runways are medium intensity.

A DME cochanneled with the 7L ILS frequency and located near the touchdown zone would allow both navigation receivers to be tuned to the ILS frequencies and would reduce the workload at a time when stabilization for the approach is desirable.

The 7L ILS glide slope is rough and autocoupled approaches are not authorized below 650 feet. The glide slopes of both 6R and 7L are unusable from the middle markers inbound. There are no VASI's on these runways to duplicate the electronic glide slopes over the "blackhole" approach. The VASI's would provide vertical guidance also during that segment of the approach which must be flown by relying upon visual cues. The Safety Board believes that the pilot needs vertical guidance until the runway threshold or runway lights are in sight. In Safety Recommendation A-72-145, (released September 5, 1972)

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the Safety Board recommended that the pilot monitor the flight instruments to that point. In response to that recommendation, the Administrator, FAA, agreed with our proposal, and stated further, "The need for this function does not cease when the runway is in sight. We believe that there is a need to continue monitoring the instruments in modern turbojet airplanes all the way into the flare."

At LAX, runways 6R and 7L instrument landing systems are unusable inbound from the middle markers. Furthermore, autocoupled approaches are not authorized below 650 feet m.s.l., on runway 7L because of glide slope roughness. Consequently, flight instrument monitoring would be futile. Here, the VASI's would give the needed guidance. In fact, the Safety Board considers VASI a valuable aid even when a glide slope is usable to touchdown. The Safety Board believes that the VASI can be a valuable supplement to any ILS approach, even under minimum weather conditions.

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


1. Raise the minimums for runways 6R and 7L approaches at Los Angeles International Airport to RVR 4,000 feet or 3/4 mile and the DH to 250 feet above touchdown zone elevation. (Safety Recommendation A-74-45.)
2. Increase both approach light systems to high intensity. (Safety Recommendation A-74-46.)
3. Install sequence flashers on 6R and 7L inbound from the RAILS to the 1,000-foot bar. (Safety Recommendation A-74-47.)
4. Install a DME near the touchdown zone of runway 7L, cochanneled on the ILS frequency of 111.1 MHz. (Safety Recommendation A-74-48.)
5. Remedy the roughness of the runway 7L glide slope. (Safety Recommendation A-74-49.)
6. Provide additional weather advisories and require additional weather observations whenever atmospheric conditions are conducive to fog formation or whenever nonhomogeneous fog conditions are present over the western approaches. (Safety Recommendation A-74-50.)

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7. Install VASI's on runways 6R and 7L. (Safety Recommendation A-74-51.)
8. Endeavor to obtain a 1-hour delay in the start of curfew on those nights when weather conditions are such that landings to the east cannot be made. This delay would allow about 30 percent of the landings scheduled during curfew hours to be made. In addition, the delay would partially alleviate the industry's problem of repositioning their aircraft for the following day's schedules. (Safety Recommendation A-74-52.)

Members of our Bureau of Aviation staff will be available for consultation in the above matters, if desired.

REED, Chairman, McADAMS, THAYER, BURGESS, and HALEY, Members, concurred in the above recommendations.

  
By: John H. Reed  
Chairman

THESE RECOMMENDATIONS WILL BE RELEASED TO THE PUBLIC ON THE ISSUE DATE SHOWN ABOVE. NO PUBLIC DISSEMINATION OF THE CONTENTS OF THIS DOCUMENT SHOULD BE MADE PRIOR TO THAT DATE.