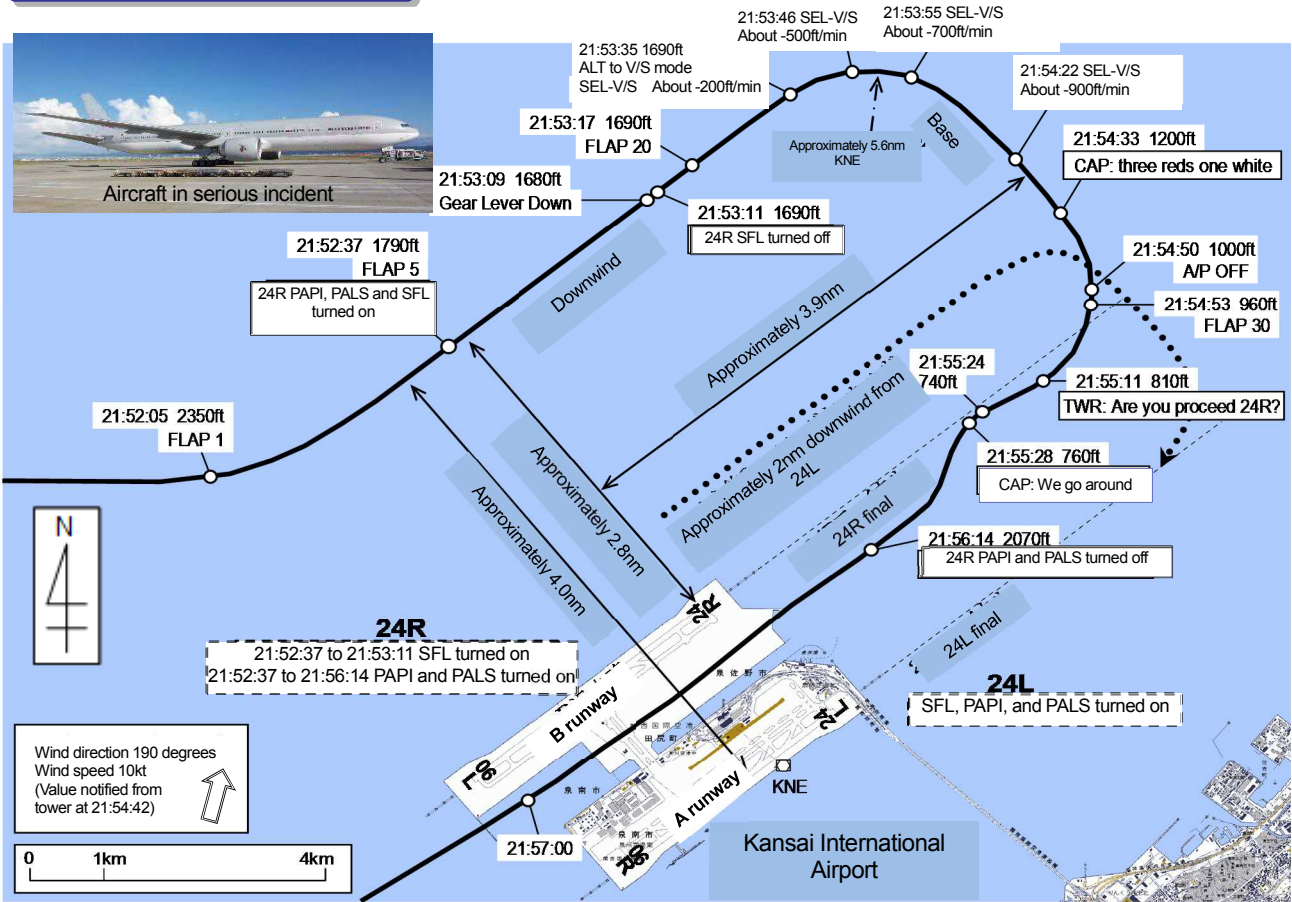


Case 1 of wrong approach to a runway, etc. (Aircraft serious incident)

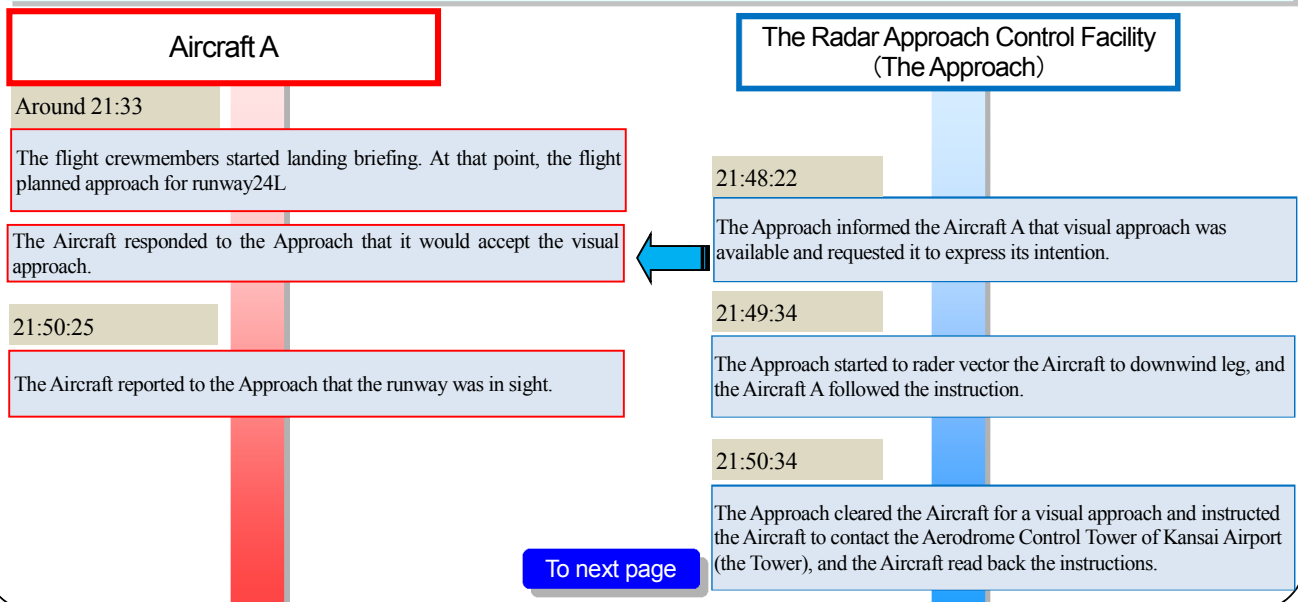
The aircraft made an attempt to land on a closed runway while approaching Kansai International Airport, and then made go-around

Summary : On August 30 (Monday), 2010, a Boeing 777-300, operated by Company A, took off from Narita International Airport at 20:59 Japan Standard Time (JST: UTC+ 9hr, unless otherwise stated all times are indicated in JST using a 24-hour clock). At about 21:55, when the aircraft was approaching Kansai International Airport, it attempted to land on runway 24R, which was closed. Thereafter, the aircraft made a go-around and touched down on runway 24L at 22:07. There were 124 people on board, including the captain, 16 crewmembers, and 107 passengers but no one was injured.

Estimated Flight Route



Background of events up until the serious incident



21:51:19

From the previous page

The First Officer suggested a traffic pattern would be width of 4 to 5 nm from the runway to the Captain, and the Captain accepted the suggestion.

The Aerodrome Control Tower (The Tower)

21:52:20

The Aircraft A reported to the Tower that it had entered the downwind leg.

*Communication transfer from terminal radar control seat (the approach) to airfield control seat (the tower)

21:52:37

Status of airfield lighting

The precision approach lighting system (PALS), the sequenced flashing lights (SFL), and the precision approach path indicator (PAPI) of runway 24R were turned on.
*The explanation of each lights are the next page.

21:53:11

The SFL of 24R was turned off.

21:54:33

The Captain said, "Three reds, one white."*1

21:54:42

The Tower cleared the Aircraft to land on 24L

The Aircraft A read back the clearance to land on 24L.

21:55:11

The Tower pointed out that the Aircraft was approaching 24R, and asked whether it was possible to make a left turn to approach 24L.

The Aircraft A reported to the Tower that the Aircraft would make a go-around because the Aircraft was unable to approach 24L.

21:56:14

The PALS and PAPI on 24R were turned off.

*1 It is considered highly probable the Precision Approach Path Indicator (PAPI) was seen as "red, red, red, white" (a slightly low entry altitude)

Analysis of cause of serious incident

Analysis of pilot and roles and cooperation of flight crew

(Statements of Captain)

- The Captain learned from the Automatic Terminal Information Service (ATIS) that the runway to be used was 24L and that 24R was closed.
- He was perfectly familiar with the Airport, but he had never previously made a visual approach at night, and he was not able to give proper instructions to the First Officer.
- When he looked outside after the First Officer turned off the Autopilot, it was dark, and there were no visual references to the surface landmarks
- He did not see the two runways and the approach lights for 24L during the final approach course.

(Statements of First Officer)

- The First Officer had approached the Airport in the afternoon of the previous day for the first time as PM. He was unfamiliar with the Airport.
- While the Aircraft was turning right, the outside was dark, which confused him, but he saw the runway and the PAPI. At that point, the Aircraft seemed to be overshooting so he turned off the autopilot before starting the approach.
- When the Aircraft was stabilized, the controller pointed out them that the Aircraft was approaching the wrong runway.
- approximately 3 nm of the final approach remained. However, it would have been difficult to touch down on 24L, and so he made a go-around.

The traffic pattern was made above the sea, the visual approach was made at night with limited visual reference objects visible, the First Officer saw a runway and a PAPI close to the position where it is normally seen, assumed it was the right runway, and entered 24R mistakenly.

It is considered somewhat likely that the Captain was distracted by the First Officer's maneuvering which he felt unsure about, and could not play the role as PM sufficiently well, and that his checking did not function properly.

The Captain and the First Officer were aware that 24R, which is one of the two runways of the Airport, was closed, there was a good visibility, it is considered probable that the false recognition of the runway would have been avoided if the Captain and the First Officer had recognized the two runways with a wider eyesight.

And it was the first visual approach to the Airport at night for both the Captain and the First Officer. It would have been desirable for them to or make an ILS approach as originally planned instead of the visual approach.

Analysis of operations of airfield lighting

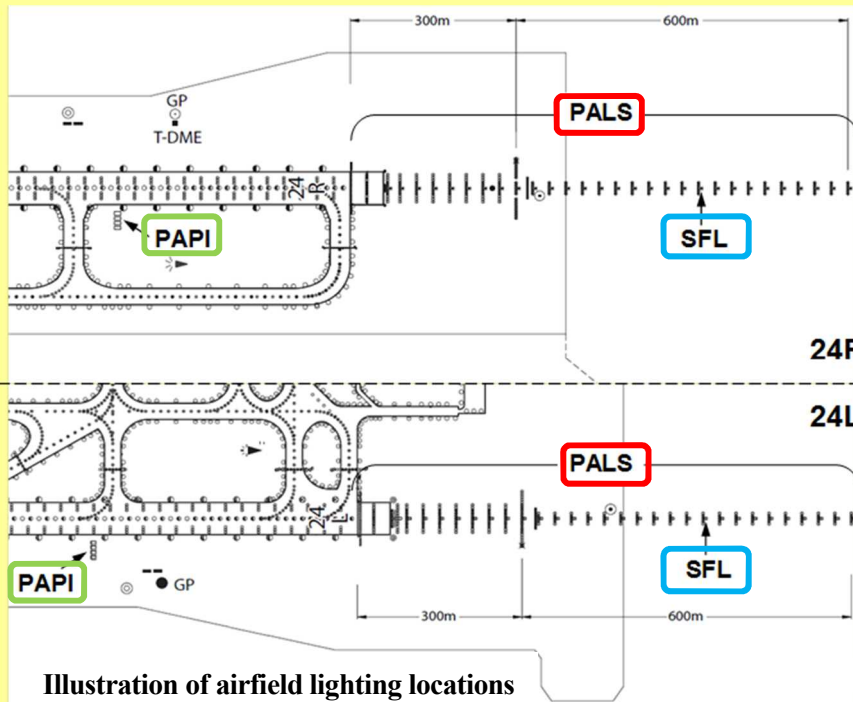


Illustration of airfield lighting locations

PALS
Precision Approach Lighting System

A lighting system installed on the approach end of an airport runway that accommodates precision approaches for instrument landing.

SFL
Sequenced Flashing Lights

A series of flashing lights that flash twice a second in sequence in the approach direction of an airport runway to the runway end.

PAPI
Precision Approach Path Indicator

A visual aid that provides guidance information to help a pilot acquire and maintain the correct approach to an aerodrome. It is generally located on one side of the runway.

The lighting staff shall notify controller before turning on the PALS and PAPI.

The rights to control the lighting console including the operation of the PALS and PAPI had been transferred from the Tower to the lighting staff at the time of this serious incident. Furthermore, the lighting staff was allowed to omit the prior notification to controllers. Therefore, it is considered highly probable that the lighting staff turned on the lights without notifying controllers in advance.

The PALS and PAPI on 24R were turned on when the aircraft was flying on the downwind leg in the traffic pattern

It is considered probable that the fact that the PAPI was on while there were no visual references on the sea was a contributing factor that the Captain and the First Officer to believe 24R as 24L.

PROBABLE CAUSES : It is considered highly probable that this serious incident occurred because while the aircraft was conducting visual approach to the airport the Captain and the First Officer assumed 24R to be 24L, and approached 24R by mistake after the aircraft received a landing clearance to 24L.

It is considered probable that the Captain and the First Officer assumed 24R to be 24L because their visual recognition of the runway was insufficient and the PALS and PAPI on 24R were turned on. It is considered probable that the traffic pattern they flew was close to the standard traffic pattern for 24R contributed to the occurrence.

In order to Prevent Recurrence

- Kansai Airport Office: In regard to the Extinction of the approach lighting system and the precision approach path indicator on closed runways” and “Thoroughgoing observance of the Agreement with the lighting staff”, thoroughgoing observance of the Agreement with the Aerodrome Lighting Department was re-confirmed.
- Arrangements of Air Traffic Control Division, Air Traffic Services Department of Civil Aviation Bureau (at that time): Regarding the lighting control of closed runways, the controller in charge should determine the timing of the lighting of the precision approach path indicator and approach lighting systems on closed runways for a proper period with consideration of the air traffic condition of the airport.

The investigation report of this case is published on the Board's website (issued on September 30, 2011)

http://www.mlit.go.jp/jtsb/eng-air_report/A7BAE.pdf

(This report is a translation of the Japanese original investigation report. The text in Japanese shall prevail in the interpretation of the report.)