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Safety Bulletin

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APPROACH Procedures and Restrictions to Tokyo Haneda RJTT/HND

Tokyo Haneda Airport is located only 5nm south of Metropolitan Tokyo and is partially a landfill airport on Tokyo Bay. The airport's history dates back to the World War II era. Since then, the airport has made several expansions as the economy of Tokyo, as well as all of Japan grew at a rapid pace. This rapid expansion resulted in airport modifications which are noncompliant to the ICAO standards, and has created many complicated taxiways and operational limitations to the operators.

The proximity to the Metropolis causes numerous noise abatement measures at Haneda Airport. Many of these measures are related to the limited runway usage and its departure and approach routes; especially between 2300 and 0600 local time, where there are restrictions for flying over the crowded city center. There are four runways at Haneda Airport which should have eight approach courses. However, as of February 2019, there are only five approach courses during the midnight hours. If the prevailing wind is from the north, ILS approaches are available throughout the night. BUT, if the prevailing wind is from the south, ILS is only available during poor weather. Scheduled runway maintenance will cause operational limitations which will cause additional workload for pilots.

This Safety Bulletin describes runway operations and precautionary measures according to the wind directions and the time of the day, including the difficult approach to fly VOR-A to RWY 16L.

PREVAILING WIND FROM THE NORTH

As mentioned above, ILS approaches are available at all times to RWY 34L and 34R. Since, from 10nm final it is over the water, so there is only a minor noise abatement procedure.

PREVAILING WIND FROM THE EAST

Unless during typhoon season or unusual severe weather conditions, the wind from the east will not exceed the cross-wind limit for usage of RWY34L and 34R which have ILS approaches. When landing on RWY34L and the wind is blowing more than 10kts from 090 to 360 degrees, the maintenance hangar located east of the runway will cause windshear on very short finals below 100ft, so you need to anticipate for very rough air.

PREVAILING WIND FROM SOUTH AND WEST (GOOD WEATHER DURING THE DAY THROUGH THE NIGHT)

The wind will blow from the southwest during the summer season, and for other seasons only when a cold pressure system is passing over Tokyo. In this case, RWY22 and 23 will be in use. If weather permits, the approach type to both runways will be LDA (Localizer-type Directional Aid) to avoid the

noise sensitive area beyond 5nm on finals. This procedure requires 47 degrees final turn to RWY23, and 55 degrees turn to RWY22.

Adding to the difficult final turn, both types of approach lack visual aids to the final course such as an approach lighting system which results in difficulties in locating the runway. For these reasons, pilots must check the approach chart and study beforehand where to turn on finals, etc.

(cf. IFALPA Safety Bulletin 11SAB15)
https://www.ifalpa.org/publications/library/haneda-operations-issues--1680

PREVAILING WIND FROM SOUTH AND WEST (IN POOR WEATHER)

LDA approaches are conducted during good visibility condition due to the fact that you must have the runway visible and maintain runway visible upon making the final turn. During poor visibility, ILS approaches will become available to both runways.

PREVAILING WIND FROM SOUTH AND WEST (IN GOOD WEATHER DURING 2300-0600 LCL)

During the midnight hours, the approach path avoids the city center to a certain extent. In westerly or southerly wind conditions, RWY23 will be in use, since it is located farthest away from the city. If this runway is closed for some reason, the next available runway will become RWY16L, and the only approach type to this runway will be VOR-A. Due to the noise abatement measures, the final course is uniquely laid out. From the final approach course (274 radial), you will join downwind (337 radial) with a right turn, then on to final (157 radial).

There have been some negative opinions for such a large international airport to adopt this procedure, however, due to the noise abatement measures during midnight hours, this airport will continue using this approach. You may request for LDA RWY22, which is another option, although this may not be recommended due to the tail-wind considerations.

RECOMMENDED PROCEDURES FOR VOR-A

For those pilots flying in during the midnight hours (2300-0600 LCL) to Haneda Airport, you need to be well prepared when conducting the VOR-A approach to RWY16L. Here are some recommended techniques for safe operation:

- Passing DARKS, descend to 1100ft and lower the gear
  - After passing DARKS, landing configuration should be made

- Descend to MDA 760ft after joining downwind
  - Final approach course is almost perpendicular to the runway, so maintain high altitude to keep the positional awareness of the runway

- Passing SAZAN, start right turn immediately at HME D5.0
  - HME VOR is located 1nm west of RWY16L, so it will be extremely difficult to join a proper downwind from the MAP (D2.8) since you will be only 1.8nm from the runway

- At abeam the runway end, start the clock and begin final left turn at 15 seconds
  - There are several buildings to the north of the airport which will make it difficult to see the runway.

- DO NOT descend from MDA too early
  - There is a tendency to begin descent too soon due to unfamiliarity to the low altitude circling approach. Judge the descent timing using flight instruments and position of the runway.

OTHERS

From March 2020, there is a plan to make a straight-in approaches to RWY16L and 16R to increase traffic capacity (specific approach type has not yet been announced). The noise issue is not yet solved flying over the city center, so this new approach will only be available during the day time (1500-1900LCL). Which means the VOR-A approach will likely continue during the midnight hours.

In order to ensure a safe approach, conduct well-prepared approach briefings with the crew, consider the important role of PM, and plan for go-around on final whenever necessary.