

Legislative Council Panel on Economic Services **Aviation Safety - Air Traffic Incidents**

Purpose

This paper provides Members with information on the measures taken by the Civil Aviation Department (CAD) to address the issue of air traffic incidents.

Background

2. Since the opening of the new airport in July 1998, a total of 28 air traffic incidents had been recorded. Out of these 28 incidents, 13 involved a loss of standard separation. (Detailed breakdowns are at Appendix.) They represented 0.0031% of the total number of aircraft movements handled by CAD during the period. According to classification criteria under international practice, these incidents are classified under the category of “no risk of collision”.

Mechanism for Reporting Incidents

3. An air traffic incident refers to any unusual happening involving air traffic, which may occur during the daily operation of aircraft or air traffic control (ATC). It may be caused by factors such as non-compliance with applicable procedures, inadequacies of the procedures, failure of facilities or equipment or human errors.

4. Hong Kong has an established mechanism for the reporting of air traffic incidents, under which air traffic controllers, pilots and airport managers are required to report safety-related air traffic incidents under the Air Navigation (Hong Kong) Order. Clear reporting procedures are stipulated for the immediate reporting of such incidents by the parties concerned to CAD. ATC staff are obliged and encouraged to report any incidents even if they are of a minor nature. The aim is to achieve improvements in the provision of ATC services. Unlike many other aviation authorities, CAD also publishes statistics on the occurrence of air traffic incidents (e.g. in the annual report of CAD).

Incident Investigation

5. CAD takes a serious view of the occurrence of any air traffic incidents and has put in place a mechanism to ensure that all safety-related incidents are thoroughly investigated jointly by its Air Traffic Management Division (ATMD) and Airport Standards Division. During investigations, all circumstances leading to the incident will be carefully examined and the causes established. Recommendations will also be made for any corrective actions that should be taken. The objective is to ensure flight safety and prevent any recurrence of similar incidents.

Improvement Actions Taken Consequent to the Investigation

6. The 28 incidents since airport opening have been investigated in accordance with the mechanism mentioned in paragraph 5 above. The findings showed that no risk of collision to aircraft was involved in all these incidents. Nonetheless, improvement measures have been identified and implemented as a result. They are summarised below -

- (a) Reminders have been issued to all ATC staff to ensure caution and vigilance of the highest level in handling air traffic under different scenarios.
- (b) Information concerning the errors revealed in the investigations and clear instructions on the correct actions to be taken were issued to all ATC staff. This is to ensure that all ATC staff would take note of the lessons learnt and become better prepared to avoid making similar errors.
- (c) In areas where improvement of existing ATC procedures or equipment have been found to be necessary, actions have been or are being taken to change the related procedures or enhance the equipment concerned.
- (d) ATC staff involved in incidents will need to undergo vigorous and intensive re-training and pass concerned re-examination before they may be allowed to resume operational duties.
- (e) For incidents which revealed errors attributed to flight crew or other ATC authorities, the findings and

recommendations have been referred to the airlines/authorities concerned for their necessary actions.

Overall Enhancement of Air Traffic Control Operations

7. CAD adopts a proactive approach in monitoring the standard of its ATC services and dedicated staff are provided for this purpose within the Airport Standards Division. In addition the results of the recent investigations have been reviewed by the senior management of CAD. The following additional measures have been taken for the overall enhancement of ATC operations -

(a) **Organization and Management of ATMD**

The workload of the various sub-sections of the ATMD has been re-distributed with focus on operational, standards and training functions.

(b) **Training**

Specialised training in operational supervision has been introduced for front-line supervisors. Two such courses were conducted in Hong Kong in March 2000 by overseas experts.

New refresher training has been provided to all radar controllers since early April this year. The objective is to increase their awareness under abnormal traffic situations as well as to enhance their skill and expertise in handling traffic conflict alert, heavy traffic scenarios and aircraft emergencies.

CAD created 3 Air Traffic Control Officer II posts in December 1999, in order to strengthen the establishment of the training unit.

(c) **Staff Supervision**

To further enhance staff supervision, senior management members of ATMD have stepped up spot checks at ATC workplaces including the Air Traffic Control Centre and Control Tower.

Starting from April this year, supervisory grade officers at Air Traffic Control Officer I rank have been rotated at regular intervals between operational and office duties with a view to strengthening operational supervision. This arrangement provides a better cross-feed of managerial and operational skills and expertise amongst supervisory staff.

(d) Staff Communication

Briefings are regularly given to all ATC staff in respect of administrative and operational matters. The aim is to promote staff communication and teamwork.

Conclusion

8. CAD is committed to providing ATC services of the highest standard, in order to ensure a safe, orderly and expeditious air traffic service. It has taken and will continue to take all necessary steps to minimise the number of air traffic incidents.

**Civil Aviation Department
May 2000**

Air Traffic Incidents since the opening of New Airport

A total of 28 air traffic incidents have been recorded since the opening of the new airport. Of these incidents:-

- 13 involved loss of standard separation;
- 6 involved missed approaches resulting from aircraft on the ground not vacating the runway in time;
- 2 involved aircraft deviating from normal flight path;
- 2 involved aborted take-off by aircraft on the runway which have started the take-off procedures;
- 2 involved activation of Traffic Alert and Collision Avoidance System in aircraft despite there being no loss of separation;
- 1 involved fire vehicles crossing the runway without permission;
- 1 involved improper handling of request for assistance from aircraft; and
- 1 involved aircraft having been transferred at wrong level.

According to classification criteria under international practice, all incidents involving loss of standard separation are classified under the category of “no risk of collision”.

CAD’s investigations showed that of the above 28 incidents, 15 were caused by inappropriate directions given by air traffic control personnel. However, in all the cases timely rectification measures were taken and there was no risk of collision.