



REASSESSMENT OF THE RESPONSE TO AVIATION SAFETY RECOMMENDATION A93-13

Staffing, opening and closing of ATC sectors

Background

On 17 February 1992, Air Atlantic Flight 1898, C-GAAM, was inbound to runway 24 Left at the Montreal International (Dorval) Airport, Quebec, from the west while Inter-Canadian Flight 664, C-FLCP, was inbound from the north to runway 24 Right. Both aircraft were operating in accordance with instrument flight rules and were being provided with radar vectors for their respective approaches. The aircraft, while on their assigned headings, conflicted one mile southeast of the final approach path of runway 24 Left.

The Transportation Safety Board of Canada determined that the cause of the risk of collision was the untimely takeover of communications at the arrival position by the instructor and the untimely opening of the low-arrival position to relieve the arrival position of excess workload. The absence of procedures, general guidelines, and supervisor training concerning the opening/closing of control positions and the management of control staff likely contributed to this occurrence.

The Board concluded its investigation and released Aviation Investigation Report A92H0003 on 21 July 1993.

Board Recommendation A93-13 (July 1993)

This risk-of-collision incident was caused in part by the untimely opening of an air traffic control (ATC) sector.

In the Canadian Aviation Safety Board's Report on the Special Investigation into Air Traffic Control Services in Canada (March 1990), problems were noted with respect to, inter alia, timely decisions regarding the opening of sectors. Considerable judgement is required with respect to the timing of sector opening and closing. It was recommended in the report that the Department of Transport prescribe operating guidelines for the timing, staffing, and transfer of responsibilities for opening and closing sectors. In response, Transport Canada (TC) indicated that, due to changing operational conditions, it was impractical to develop fixed guidelines, with respect to timing, for the opening and closing of sectors.

Since 1990, the TSB has investigated two other occurrences in addition to this one in which the delayed opening or staffing of a sector was a factor (A90H0008 and A90P0347). In its final report on the latter incident, the Board expressed concern that occurrences resulting from the untimely opening of sectors were continuing. Furthermore, three recent TC Fact Finding Boards (FFB) on

loss-of-separation incidents have identified factors related to the delayed opening of a sector (5400-42-38A-9203, 5400-42-48A-9207, and 5400-42-33A-9203).

The Board appreciates that there could be difficulties associated with the implementation of fixed guidelines for timing the opening and closing of sectors. The Board is also aware that Air Traffic Services agencies in other countries have experienced problems caused by the late opening of sectors and apparently have not been able to develop a formula fix either. TC has procedures regarding how sectors are to be opened and how controllers are to assume or relinquish control responsibilities. Evidently, knowing how to open a sector is not the issue; deciding when it is time to do so apparently is.

In view of the continuance of incidents in which the delayed opening of an ATC sector has been a contributing factor, operational supervisors require some form of assistance to ensure timely decisions on sector management.

Therefore the Board recommends that:

The Department of Transport provide operational supervisors with general criteria and practical training for making timely decisions on the staffing, opening, and closing of sectors.

TSB Recommendation A93-13

Transport Canada's response to Recommendation A93-13 (November 1993)

Transport Canada agrees with this recommendation. The following activities have been initiated in order to ensure that supervisory personnel are adequately trained:

- a) general criteria for the opening and closing of sectors are being developed and will be published for the guidance of all supervisors. Supervisors will be briefed on these criteria, once they are promulgated;
- b) these criteria will be reviewed on an annual basis during controller/supervisor refresher training;
- c) a formal training course is being developed for supervisory personnel. Staffing and the opening/closing of sectors will be included as a part of this training program;
- d) the required staffing levels for the specialties/sectors in each Area Control Centre have been reviewed, and adjustments to these staff levels have been approved. The approved levels are considered adequate to provide supervisors with the flexibility to staff sectors with sufficient controllers to meet normal traffic demands; and
- e) an ATS Safety Bulletin (known as SQUAWK 7700) will be published to provide all staff with information on the criteria for staffing and opening/closing sectors.

Board assessment of the response to Recommendation A93-13 (January 1994)

In the report on the Special Investigation into Air Traffic Control Services in Canada (March 1990), problems were noted with respect to, inter alia, timely decisions regarding the opening of sectors. It was recommended that TC prescribe operating guidelines for the timing, staffing, and transfer of responsibilities for opening and closing sectors. In response, TC indicated that, due to changing operational conditions, it was impractical to develop fixed guidelines, with respect to timing, for the opening and closing of sectors.

The intent of Recommendation A93-13 was to have TC readdress this deficiency from another perspective, that being, to develop general guidelines instead of fixed ones and to provide training for the supervisors. TC agrees with Recommendation A93-13 and has indicated intent to initiate activities that will address this safety deficiency. Specifically, TC plans to publish general criteria for opening and closing sectors, to provide controller and supervisory training on a recurrent basis on these criteria, and to promote knowledge of these criteria through the ATS Safety Bulletin.

Therefore, the response to Recommendation A93-13 is assessed as **Satisfactory Intent**.

Board reassessment of the response to Recommendation A93-13 (November 1996)

Transport Canada is in the process of developing training and guidelines.

Therefore the assessment remains **Satisfactory Intent**.

Board reassessment of the response to Recommendation A93-13 (November 1997)

Transport Canada is in the process of developing training and guidelines. Units have been directed in Air Traffic Services Administration and Management Manual (ATSAMM) to develop site specific guidelines for the opening and closing of control sectors. The topic is to be covered in annual refresher training.

Therefore, the response to Recommendation A93-13 is assessed as **Satisfactory in Part**.

Board reassessment of the response to Recommendation A93-13 (January 2004)

Apparently, guidelines and training have been developed since the last re-assessment. While the issue of timely opening of sectors, etc., is probably still present, there is nothing to indicate that it is more than a minimal safety risk at this time.

Therefore the assessment remains **Satisfactory in Part**.

As such, "Further Action is Unwarranted" with respect to Recommendation A93-13 and the status is set to **Inactive**.

Board review of Recommendation A93-13 deficiency file status (April 2014)

The Board requested that Recommendation A93-13 be reviewed to determine if the Deficiency File Status was appropriate. After an initial evaluation, it was determined that the safety deficiency addressed by Recommendation A93-13 needed to be reassessed.

A request for further information was sent to Transport Canada and a reassessment will be conducted upon receipt of Transport Canada's response.

Therefore, the assessment remains **Satisfactory in Part**.

Consequently, the status of Recommendation A93-13 is changed to **Active**.

Transport Canada's response to Recommendation A93-13 (July 2015)

The NAV CANADA Air Traffic Services Safety Bulletin (known as Squawk 7700) and supervisor training package have been issued.

Transport Canada believes the objectives of the recommendation have been met and suggests closing this item.

NAV CANADA's response to Recommendation A93-13 (May 2016)

With the transfer of responsibility for the provision of air navigation services to NAV CANADA in November 1996, an update was requested from NAV CANADA.

The recommendations in the Air Traffic Services Safety Bulletin, Squawk 7700, have been incorporated into both our supervisory training and into each unit's Unit Operations Manual (UOM). As each unit has very different criteria for how sectors are opened and closed, this was the way it was best actioned, and proves to be very effective.

Board reassessment of the response to Recommendation A93-13 (May 2016)

In its May 2016 response, NAV CANADA indicates that the opening and closing of sectors, with specific criteria for each unit, have been incorporated in its training and unit operations manuals. These changes should substantially reduce or eliminate the safety deficiency identified in Recommendation A93-13.

Therefore, the response to Recommendation A93-13 is assessed as **Fully Satisfactory**.

Next TSB action

No further action is required.

This deficiency file is **Closed**.