42 AVIATION INCIDENT AND OCCURRENCE REPORTING AND THE ISSUE OF PILOT CONFIDENTIALITY

The issue of whether statements and reports made by pilots with respect to aviation occurrences or incidents are entitled to privilege on the basis of confidentiality, and therefore inadmissible as evidence, arose during the course of the hearings of this Commission. Counsel for Air Ontario and for the Canadian Air Line Pilots Association (CALPA) asserted a claim of entitlement to privilege on the basis of confidentiality and objection to their production with respect to the following documents:

- The questionnaires and contemporaneous notes completed by Captain Ronald Stewart, the Air Ontario flight safety officer, in relation to his telephone interviews with five Air Ontario F-28 pilots about the F-28 operations, following the March 10, 1989, crash at Dryden.
- All incident reports relating to Air Ontario F-28 aircraft C-FONF and the sister aircraft C-FONG.
- The incident and occurrence reports that had been filed by Captain George Morwood and First Officer Keith Mills while they were in the employ of Air Ontario Inc. or its predecessor companies.

Counsel for Air Ontario and for CALPA argued that air carrier pilots submit incident reports in the belief they are confidential. They suggested that if such confidentiality is breached, pilots will be less forthcoming and frank in disclosing information about incidents, and the circumstances in which they occurred, to airline management. They predicted a potential chilling effect on the reporting of incidents, and argued that the release of incident reports and questionnaires would compromise rather than facilitate improvements in aviation safety.

Counsel for CALPA further argued that if the identity of pilots making incident reports were disclosed, this source of information would dry up. In contrast, counsel for the chief coroner of the Province of Ontario, for the surviving passengers and the families of victims, and for the *Toronto Star* and the Canadian Press, all of whom were granted intervenor status with respect to this issue, argued in favour of the

disclosure of the material in question and the identity of its authors. They argued that disclosure was in the public interest and that the value flowing from disclosure far outweighed any negative impact such disclosure might have on the candour and willingness of pilots to make such reports in the future. Counsel for the Government of Canada, although in favour of disclosure of the material in question, argued that the identity of pilots should be kept confidential.

The issue was ultimately resolved to the satisfaction of counsel for all parties. Captain Stewart and the pilots waived any possible privilege based on confidentiality and agreed to the production of the documents in question. They also agreed to testify voluntarily before this Inquiry.

Notwithstanding this result, I deem it appropriate to comment on this issue because of the widespread interest in the subject of pilot confidentiality within the aviation community. I want to explain the objectives of the Commission in pursuing this evidence and hope to clarify, to the extent possible, the pilots' confidential incident-reporting system.

Background

Captain Ronald Stewart was the Air Ontario Inc. flight safety officer at the time of the crash of flight 1363 and in the months following. While conducting an internal investigation into the crash, he interviewed five Air Ontario F-28 pilots by telephone on various aspects of the Air Ontario F-28 operation. In the course of each of the interviews, Captain Stewart completed a questionnaire he had prepared and made notes of the pilots' responses. He told the pilots that their interviews with him were confidential.

Captain Stewart was himself interviewed by Commission of Inquiry staff in the course of the investigation of the March 10, 1989, crash. He informed the Commission interviewers of the nature of the responses he had received from the five pilots, without divulging their names. On the advice of Air Ontario counsel, Captain Stewart withheld his contemporaneous notes of the five pilot interviews, the completed questionnaires, and the names of the pilots.

Correspondence subsequently passed between counsel on behalf of the Commission and counsel to Air Ontario in which the Commission sought production of the completed questionnaires, the contemporaneous notes, the names of the five pilots, and reports and other materials prepared or received by Air Ontario in connection with incidents involving the F-28 aircraft. Counsel for Air Ontario, supported by counsel to CALPA, refused to produce the information requested, claiming that any such action "would have a chilling effect on the

reporting of incidents generally and a detrimental effect on the flight safety program" (Exhibit 576, appendix 3).

Despite considerable discussion between Commission counsel and counsel to Air Ontario and CALPA whether all the information and documentation relating to the crash of flight 1363 should be produced to the Inquiry, counsel for Air Ontario, supported by counsel to CALPA, continued to refuse such production. When no resolution appeared to be forthcoming on a consensual basis among counsel, I issued a subpoena *duces tecum* on February 22, 1990, to be served on Captain Stewart requiring his attendance before the Commission and requiring him to produce the documentation in question.

On April 23, 1990, during the course of the hearings of this Commission to which Captain Stewart was summoned as a witness, a claim of privilege, based on confidentiality, was asserted by counsel representing Air Ontario and CALPA. This claim was made with respect to the proposed introduction into evidence by Commission counsel of the questionnaires completed by Captain Stewart. In addition, objection was taken to the identification and proposed calling of the five pilots as witnesses, and to the introduction of evidence of incident reports involving the F-28 aircraft as well as incident reports specifically involving Captain George Morwood and First Officer Keith Mills. It was proposed, in the alternative, that I receive the documents in a sealed envelope and that I consider them privately, without public disclosure of the contents or revelation of the identity of the pilots. I summarily dismissed this proposal as inappropriate, particularly in the case of a public inquiry.

The proposal by Commission counsel to put forward this evidence was strongly supported by counsel for the chief coroner of the Province of Ontario; by counsel for the victims' families and the survivors; and by counsel for the *Toronto Star* and the Canadian Press, who were granted intervenor status in this regard. An adjournment with respect to this issue was granted to May 22, 1990, to allow counsel to prepare written submissions in support of their respective positions.

Detailed written arguments were in fact produced by counsel for all of the concerned parties. On May 22, 1990, the hearing into the issue of pilot confidentiality resumed. Commission counsel proposed to begin by calling Captain Stewart and the five pilots to give evidence regarding the circumstances under which the statements by the pilots were made.

At this time, counsel for both Air Ontario and CALPA indicated they had no objection to Captain Stewart's being called as a witness or to his disclosing the nature of the information obtained from the five pilots. However, they strenuously objected to his being required to identify the pilots, and they remained totally opposed to the pilots being called as witnesses.

After I had heard considerable argument by counsel I was of the view that a two-stage process was involved in deciding the issue. The first stage was to determine the circumstances on which the claim for privilege based on confidentiality was founded. Obviously, if no offer had been made by Captain Stewart to give rise to the cloak of confidentiality, that would end the matter. If, however, it was found from the evidence that an offer of confidentiality had been made to the five pilots, then it would be necessary to go on to the second step to determine whether the pilots' statements to Captain Stewart were in fact privileged in law.

In my view, the best possible evidence of whether a statement was made in confidence was that of the person who actually made the statement. Counsel for Air Ontario and CALPA urged that only Captain Stewart be called in this regard and that the five pilots neither be identified nor called as witnesses at this stage of the proceedings. This position was tantamount to hearing only one-half of the story and was clearly unacceptable in a public forum.

In addition, counsel for the provincial coroner of Ontario moved for an order excluding witnesses during Captain Stewart's testimony. In opposing this motion, counsel for Air Ontario and CALPA argued that the five pilots occupied a position analogous to that of an accused in a criminal matter or a party to a civil proceeding and that they ought not to be excluded. Following all of the argument, I made the ruling set out hereunder.

Ruling of the Commissioner Made on May 22, 1990

> It strikes me that there is really no analogy between the position of these pilots and a party accused in a criminal matter and a party in a civil action. I don't think I can come to the conclusion that you suggest, Mr Keenan, with respect to the pilots.
>
> In this matter, it is not in dispute that five Air Ontario F-28 pilots gave certain information to their safety officer, Captain Stewart, after the March 10th crash at Dryden and that Captain Stewart recorded this information.
>
> Commission Counsel proposes to call Captain Stewart and the five pilots in order to establish the circumstances under which the information was given to Captain Stewart by these pilots, and he argues that those circumstances are relevant to the larger issue of privilege based on confidentiality which is being asserted on behalf of those pilots with respect to that information.
>
> This is a two-stage issue. The first stage involves the circumstances out of which a claim for privilege based on confidentiality

arises. The second stage involves examining the issue of whether or not a claim for privilege can be sustained on the basis of confidentiality. At this point, we are concerned only with the first stage.

Counsel for Air Ontario and for the Canadian Airline Pilots Association representing the five pilots argue that the pilots who gave statements to Captain Stewart should not be called as witnesses at this stage, nor should their identities be made public prior to a decision being made on the larger issue of privilege itself. It is suggested that I hear only the evidence of Captain Stewart on this point. However, to hear the evidence of Captain Stewart alone would be to only hear one side of the story.

The question is not so much one of whether an offer of confidentiality was made but whether that information which was received by Captain Stewart would not have been given to him by the pilots in question in the absence of an undertaking as to confidentiality.

The available jurisprudence on the subject indicates that a tribunal faced with a claim of privilege on the basis of confidentiality must hear evidence as to the circumstances giving rise to such claim. In this case, I can think of no evidence more germane to the issue of such circumstances than that of the five individuals with respect to whom a claim for privilege is being asserted on the basis of confidentiality.

The circumstances under which the statements in question were given go to the very heart of the matter. That evidence can only be given by the pilots themselves. Position statements made by counsel on their behalf is not evidence.

In short, in order to intelligently adjudicate on the main issue, I feel that I have to hear those who claim privilege and their evidence must be subject to the tests of cross-examination.

At this stage, no reference to the content of the actual statements given by each of the pilots will be made. It is already public knowledge that certain statements were made.

In my view, it cannot reasonably be inferred that any injury will accrue to these pilots or to the general pilot group by merely hearing the evidence of the five pilots as to the circumstances under which their individual statements were made to Captain Stewart.

I therefore conclude in all the circumstances of this case that it is appropriate that Captain Stewart and the five pilots be called as witnesses in this stage of the process of ultimately determining the efficacy of the claim for privilege.

Counsel for the Provincial Coroner of Ontario has moved that there be exclusion of witnesses during this phase of the inquiry. This is routinely done in courts at all levels.

Because of the delicate nature of this matter, I deem it to be in the best interests of all concerned including the said pilots themselves that an order for exclusion be made.

I accordingly make the following order:

> First, all witnesses who are to be called to testify in this phase of the inquiry shall be excluded from the hearing room while other witnesses testify.
>
> Second, witnesses who are yet to be called to testify are hereby directed not to watch the television monitor at Commission premises during the hearings.
>
> Third, witnesses who are to be called shall not discuss their evidence or the evidence of any other witness with any other person excluding counsel for those persons.
>
> Witnesses who are yet to be called to testify are directed not to read the transcripts of evidence given by other witnesses who have testified ahead of them during this phase of the inquiry.
>
> (Transcript, vol. 74, pp. 72–76)

Shortly thereafter that same day, May 22, 1990, I was told that all counsel had arrived at an agreement on the issue of privilege based on a claim of confidentiality, which precluded the necessity of a protracted hearing before me. The position arrived at by counsel was essentially the following:

- The five questionnaires completed by Captain Stewart during his telephone interviews with the F-28 pilots would be produced to the Commission.
- The contemporaneous notes of the interviews with the five F-28 pilots made by Captain Stewart would be produced to the Commission.
- All incident and occurrence reports relating to the F-28 aircraft would be produced to the Commission.
- All incident and occurrence reports in the possession of Air Ontario, or from other sources, pertaining to Captain Morwood and First Officer Mills would be produced to the Commission.
- The names of the five pilots would be made available to the Commission, and the pilots would all appear as witnesses before me waiving whatever alleged privilege may have attached to the questionnaires completed by Captain Stewart. The pilots in question were Christian Maybury, Deborah Stoger, Angus Moncrieff (Monty) Allan, William Wilcox, and Erik Hansen.

The Five F-28 Pilot Questionnaires and Contemporaneous Interview Notes

Captain Stewart was called to testify on May 23 and 24, 1990. In response to questions by counsel for Air Ontario, he gave the following explanation for his personal decision, as the Air Ontario flight safety officer, to conduct the pilot surveys after the F-28 crash:

Q. ... tell me, sir, why you drafted this survey.
A. Rumours. They're prevalent in every industry, I'm sure. They are very much so in the airline. After the accident, there was many rumours of – surrounding the F-28 operation and what was wrong with it, and I wanted to get to the bottom of it to see if there was any basis for fact.

Also, I had some specific questions, some concerns that had been raised during the investigation, during the on-site investigation out in Dryden, with respect to icing with – or, excuse me, de-icing on aircraft with an engine running and also with respect to, in quotation marks, "hot refuelling," and I wanted to learn what the pilot viewpoints were on those two issues as well.
Q. Now, what use was going to be made of this survey by you once you had it completed?
A. Well, what I intended to use this for was simply to assess whether or not the rumours were true and, assuming the worst, make recommendations to the president with respect to the operation.
Q. So this would be in line with your major responsibilities as you've outlined it on the –
A. Yes, very much so.

(Transcript, vol. 74, p. 98)

Captain Stewart testified that he originally planned to survey all F-28 pilots with Air Ontario but abandoned this plan after the vice-president of flight operations, Mr James Morrison, took great exception to the survey and angrily queried Captain Stewart whether he was conducting a "witch hunt." In his evidence, Mr Morrison conceded he had referred to the pilot survey as a witch hunt:

A. ... And he said, well, what do you mean, Jim, and I said, well, basically, Ron, are you on a witch hunt or are we trying to develop something here?

(Transcript, vol. 115, p. 160)

Q. When you talked to him, did you use the word "witch hunt" in talking to him? Do you recall?
A. I believe I did.
Q. Do you think that choice of terminology on your part may have transmitted your dissatisfaction with the survey to him?
A. In retrospect, yes, I would say that it would, certainly.

(Transcript, vol. 115, pp. 166–67)

The company discontinued the F-28 operation six weeks later, citing commercial reasons for the cancellation of the program.

The contents of the questionnaires and the contemporaneous notes of the pilot interviews made by Captain Stewart were of considerable probative value to the inquiry into the Air Ontario F-28 operations and flight safety program. The principal criticisms cited by the five pilots regarding the F-28 operations concerned a lack of technical direction in the F-28 program and the fact that there was no one in the organization experienced enough to lead the F-28 project. The competence of Captain Joseph Deluce in his role as F-28 chief pilot was also the subject of pilot criticism. Captain Stewart in fact recommended to Air Ontario management that Air Canada be brought in to lead the program. This recommendation was not acted upon.

Other pilot criticisms centred on the lack of Air Ontario F-28 standard operating procedures (SOPs), confusion among pilots as to which of three different flight manuals should be used, poor coordination within the Air Ontario system operations control (SOC) centre, and lack of ground-support facilities at various stations. These matters are explored in greater detail in other chapters of this Report.

Clearly, the information contained in the pilot questionnaires and in Captain Stewart's interview notes was relevant to the issues being considered by this Inquiry and it was, in my view, in the public interest that it be disclosed. I would emphasize that the Commission was duty-bound to pursue all relevant evidence pertaining to the Air Ontario F-28 operation in its search for the contributing factors and causes of the March 10, 1989, crash. All steps taken towards this end, including the introduction into evidence of the five F-28 pilot questionnaires and Captain Stewart's interview notes, were, in my view, consistent with the laws of Canada.

I propose now to outline and comment on the powers of a Commission under the *Inquiries Act*; the applicable Canadian statutory provisions; the position of the International Civil Aviation Organization (ICAO); the provisions of Air Ontario corporate manuals and forms; and the common law that evolved with respect to privilege and confidentiality in relation to the production of the documents in issue.

Powers of the Commissioner with Respect to the Conduct of the Inquiry

The Order in Council: Procedures

The Order in Council establishing this Commission, dated March 29, 1989, provides that "the Commissioner be authorized to adopt such procedures and methods as he may from time to time deem expedient for the proper conduct of the inquiry."

The Inquiries Act: Summoning Witnesses and Production of Documents

Section 4 of the *Inquiries Act*, R.S.C. 1985, c.I-11, provides:

> The commissioners have the power of summoning before them any witnesses, and of requiring them to
> (*a*) give evidence, orally or in writing, and on oath or, if they are persons entitled to affirm in civil matters on solemn affirmation; and
> (*b*) produce such documents and things as the commissioners deem requisite to the full investigation of the matters into which they are appointed to examine.

The Order in Council, when read in conjunction with and subject to the terms of the *Inquiries Act* and the common law, suggests that the commissioner is entitled to conduct the inquiry in such a way as to further the objects of his commission and that, to the extent that legal rights are not contravened, is "the master of [his] own procedure." (See *F. Irvine v. Canada* (Restrictive Trade Practices Commission), [1987] 1 S.C.R. 181.)

Canadian Statutory Provisions

There are no statutory provisions to assist a commissioner in determining whether the documents in issue should be produced. However, some mention should be made of the Air Navigation Order (ANO) Series VII, No. 2; the *Canada Evidence Act*, R.S.C. 1985, c.C-5, as amended; the *Canadian Aviation Safety Board Act*, R.S.C. 1985, c.C-12, and the Regulations thereunder; and the now proclaimed *Canadian Transportation Accident Investigation and Safety Board Act*, S.C. 1989, c.3.

ANO Series VII, No. 2

ANO Series VII, No. 2, which establishes the Standards and Procedures for air carriers using large aircraft, is silent with respect to the aviation occurrence reporting system.

The Canada Evidence Act

Section 37 of the *Canada Evidence Act*, R.S.C. 1985, c.C-5, as amended, permits a minister of the Crown or "other person interested" to object to the disclosure of information on the basis of a specified public interest. The court may examine or hear the information and order its disclosure subject to restrictions or conditions it deems appropriate, if it

concludes that the public interest for disclosure outweighs the specified public interest. For the purposes of the Act, "other person interested" contemplates a person in authority in relation to the public interest specified. (*R. v. Lines* (1986) 27 C.C.C. (3d), 377 (N.W.T.C.A.)). One would be hard pressed indeed to find that either Air Ontario or CALPA would be persons interested within the meaning of the Act and, therefore, entitled to invoke section 37 to their benefit. Certainly I cannot come to such a conclusion.

The Canadian Aviation Safety Board Act

The *Canadian Aviation Safety Board Act*, R.S.C. 1985, c.C-12, created the now defunct Canadian Aviation Safety Board (CASB), a statutorily mandated board with broad powers to, *inter alia*, search and seize property, compel individuals to attend and give evidence under oath, compel the production of medical records, and conduct public inquiries into aviation occurrences.

The provisions of the *Canadian Aviation Safety Board Act* are of no assistance to Air Ontario or to CALPA in this matter. While the legislation creates a privilege for specifically defined statements, the privilege clearly attaches only to statements obtained by the board or an investigator for the board. Notwithstanding this, where the production of a statement is contested on the grounds that it is privileged, the court (defined to include a commission under the *Inquiries Act*) is to review the statement in camera and may order production if it concludes that "the public interest in the proper administration of justice outweighs in importance, the privilege attached to the statement by virtue of section 38."

There are no provisions in the *Canadian Aviation Safety Board Act* that afford any individual (such as Captain Stewart and each of the five F-28 pilots), corporation (such as Air Ontario), or association (such as the Canadian Air Line Pilots Association) any privilege, degree of protection, or confidentiality in the gathering of occurrence or incident reports or any other documents or information pertaining to the safety of the operation of an air carrier.

Canadian Aviation Safety Board Regulations

The Canadian Aviation Safety Board Regulations established a mechanism for anonymous and confidential reporting of aviation-related concerns to the board. Section 6 of the Regulations provides as follows:

Voluntary Reporting

6.(1) Any person having knowledge of an aviation occurrence who is not required to report the occurrence pursuant to section 3, 4 and 5 may report to the Board any information that the person wishes to report.

(2) Where a person reports to the Board pursuant to subsection (1), the person may, by using the form set out in the schedule, request that his identity and any information that could reasonably be expected to reveal his identity not be released.

(3) Where a report is made to the Board by using the form set out in the schedule,

(*a*) the report shall be examined exclusively by officers of the Board specifically designated by the Board to examine the report; and

(*b*) the Board shall return the removable identification strip on the form to the address appearing on the strip within 10 clear days from its receipt of the report.

(4) Where a person reports to the Board pursuant to subsection (1) by using the form set out in the schedule, no person shall release, or cause to be released, the identity of the person making the report or any information that could reasonably be expected to reveal his identity, unless the person making the report authorizes, in writing, such release.

The confidential aviation safety reporting system provided for by section 6 is the only method provided by statute or regulation whereby aviation occurrences may be reported in a confidential manner.

A brochure published by the Canadian Aviation Safety Board (CASB) entitled *Reporting in Confidence* describes the system in the following terms: "A new mechanism, using a reporting form provided by the Board, is available for those wishing to protect their identity when voluntarily reporting aviation occurrences. The program is designed to gather information not provided under the other systems." The "other systems" referred to are the mandatory and voluntary reporting systems:

> **Mandatory** – Existing regulations require that all civil aircraft accidents and missing aircraft as well as certain types of incidents be reported to the CASB. The mandatory reporting of incidents presently applies only to aircraft weighing more than 5,700 kg and covers specified types of incidents such as engine failure, smoke or fire in the aircraft and near collisions ...
>
> **Voluntary** – The voluntary system is concerned with incidents, situations or conditions involving aircraft weighing more than 5,700

> kg that are outside mandatory reporting requirements, and all those involving aircraft weighing less than 5,700 kg.
>
> (Exhibit 577, Document 4)

Thus, there are no provisions in the Canadian Aviation Safety Board Regulations that afford any individual, corporation, or association any degree of protection or confidentiality in the gathering of occurrence or incident reports or any other documents pertaining to the operation of an aircraft, except to the extent provided for an individual who avails himself or herself of the mechanism provided for in section 6 of the CASB Regulations. In fact, it is mandatory to report certain specified incidents involving aircraft weighing more than 5700 kg. No confidentiality whatsoever attaches to such reporting.

The Canadian Transportation Accident Investigation and Safety Board Act

An aviation occurrence is defined in section 2 of the Act as follows:

> (*a*) any accident or incident associated with the operation of an aircraft, and
>
> (*b*) any situation or condition that the Board has reasonable grounds to believe could, if left unattended, induce an accident or incident described in paragraph (*a*).

This Act effects the replacement on June 29, 1989, of the Canadian Aviation Safety Board (CASB) by the new Canadian Transportation Accident Investigation and Safety Board (CTAISB). There are no provisions in the *Canadian Transportation Accident Investigation and Safety Board Act* for any reporting systems that are different from those in place pursuant to the predecessor *Canadian Aviation Safety Board Act*. As of the date of this Final Report, no new regulations had been passed pursuant to the *CTAISB Act*.

Section 30 of the Act broadens the non-disclosure provisions in the predecessor legislation. Moreover, it includes in subsection (5) a provision allowing for a court to determine issues relating to the production and discovery of a statement made under the Act, where a claim to privilege is asserted, by balancing public interest with the importance of the privilege. Subsection (6) deems a "court" to include an inquiry under the *Inquiries Act*.

Subsections (5) and (6) provide as follows:

> (5) Notwithstanding anything in this section, where, in any proceedings before a court or coroner, a request for the production and

discovery of a statement is contested on the ground that it is privileged, the court or coroner shall

(*a*) *in camera*, examine the statement; and

(*b*) if the court or coroner concludes in the circumstances of the case that the public interest in the proper administration of justice outweighs in importance the privilege attached to the statement by virtue of this section, order the production and discovery of the statement, subject to such restrictions or conditions as the court or coroner deems appropriate, and may require any person to give evidence that relates to the statement.

(6) For the purposes of subsection (5), "court" includes a person or persons appointed or designated to conduct a public inquiry into a transportation occurrence pursuant to this Act or the *Inquiries Act*.

Clearly, even confidential statements made under the statutory protection of section 30 of the *CTAISB Act* are, at the instance of a court, in a proper case, subject to disclosure.

Position of the International Civil Aviation Organization

The position of ICAO with respect to disclosure of any records, including the statements of pilots made in the course of an accident or incident investigation, is unequivocal. Such records or information enjoy no legal privilege.

Paragraph 5.12 of Annex 13 to the Convention on International Civil Aviation relating to international standards and recommended practices, aircraft accident investigation, states as follows:

Disclosure of Records

5.12 When the State conducting the investigation of an accident or incident, wherever it occurred, considers that disclosure of any of the records, described below, might have an adverse effect on the availability of information in that or any future investigation then such records shall not be made available for purposes other than accident or incident investigation:

a) statements from persons responsible for the safe operation of the aircraft;

b) communications between persons having responsibility for the safe operation of the aircraft;

c) medical or private information regarding persons involved in the accident or incident;

d) cockpit voice recordings and transcripts from such recordings;
e) opinions expressed in the analysis of information, including flight recorder information.

(Exhibit 577, Document 11)

Attachment D to Annex 13

Attachment D to Annex 13 provides guidance to the interpretation of paragraph 5.12. It appears to modify the provisions of paragraph 5.12 to the extent that the appropriate authority must determine whether in the use of records, including pilot statements given in confidence, the proper administration of justice outweighs any adverse impact such use may have in future investigations. It provides:

ATTACHMENT D. DISCLOSURE OF RECORDS

Practical applications of 5.12

...

[4] a) in the spirit of 5.12, the records specified therein should not be made available to civil, administrative or judicial proceedings unless the appropriate authority determines that the proper administration of justice outweighs the adverse domestic and international impact such action may have on that or any future investigations;

(Exhibit 577, Document 11)

The standards and recommended practices of Annex 13 have no legally binding power. Furthermore, any member states that are signatory to Annex 13 and find it impractical or impossible to comply with a given standard or practice may at any time notify a "difference" and opt out. As of January 15, 1989, Canada and 14 other states had notified ICAO of differences with respect to paragraph 5.12 of Annex 13. The "difference" filed by Canada simply states:

5.12 Present Canadian legislation precludes the possibility to guarantee that the documents outlined could be afforded any protection from disclosure.

It is readily apparent that no degree of protection from disclosure or confidentiality can be invoked by any individual, corporation, or association pursuant to Annex 13. The Government of Canada, by filing a "difference," has made it abundantly clear that no protection from disclosure based on ICAO standards and recommended practices can be assumed or relied upon.

Applicability of Air Ontario Manuals and Forms

The Air Ontario Flight Operations Manual contains specific sections pertaining to aviation occurrences, accidents, and reportable incidents as well as the circumstances, by whom and to whom, under which reports are to be made. There are no provisions whatsoever in the manual which state or even remotely suggest that any information contained in aviation occurrence reports, accident reports, or incident reports, including the names of the operating crew members, will be treated as being confidential, privileged, or in some other manner protected. Furthermore, the various forms that were to be used by crews to record incidents were intended for a fairly wide distribution. Only one Air Ontario incident report form had three options to be checked off under the headings "Operational," "Flight Safety," or "Anonymous." A number of Air Ontario pilots who testified before me were uncertain as to the use and meaning of the "anonymous" option.

It became quite clear from the evidence of Air Ontario pilots and managers, and from the manuals and forms they used, that there were no corporate directives or individual expectations that Air Ontario had some type of formal confidential reporting system. This simply was not the case.

Past Practices of Commissions of Inquiry

The confidentiality of accident investigation procedures was discussed by Mr Justice Dubin in his *Report of the Commission of Inquiry on Aviation Safety* (vol. 1, May 1981). While the Dubin Commission did not deal with privilege issues in relation to pilot incident reports and questionnaires, there was controversy with respect to disclosure of material gathered by aviation safety investigators.

Mr Justice Dubin reviewed several case studies in the report, including the crash of a Pacific Western Boeing 737 at Cranbrook, British Columbia. Litigation was commenced against the Department of Transport by Pacific Western Airlines as a result of this crash. The Department of Justice began to collect documents relating to the crash for the purposes of production on discovery, but members of the aviation safety investigation division who inquired into the Cranbrook crash refused to produce certain documents relating to their examination. They maintained that it would frustrate their efforts to obtain full and frank disclosure from individuals if those communications did not remain strictly confidential.

In his comments, Mr Justice Dubin concluded that no privilege attached to the materials gathered by the investigators. He suggested in his report, however, that it might be appropriate to introduce legislation that would provide for confidentiality of the type sought by the aviation safety investigation division (pp. 210–13). Such provisions subsequently surfaced in the Regulations to the *CASB Act*.

In his Report, Mr Justice Dubin referred to the United States experience:

> The main ground advanced by those asserting that a privilege should be attached to all statements obtained by the investigators in the course of their investigations is that witnesses would refuse to provide information to accident investigators if these statements could become admissible in legal proceedings. Those who advanced this position opined that this would happen. These opinions were equally matched with the opinions of others that no such result would flow. It has not been the experience of the National Transportation Safety Board in the United States, where witnesses' statements enjoy no privilege, that their sources of information have dried up. Conversely, there is a danger that witnesses who are assured that their information will not be challenged, nor come under public scrutiny, may take liberties with the facts. This may impair public confidence in the reliability of accident reports.
>
> The practice of accident investigators of assuring confidentiality to those being interviewed should not be encouraged since the investigator cannot in all circumstances carry out his pledge of confidentiality.
>
> In my opinion no satisfactory arguments have been advanced which would warrant any rule of absolute privilege to be attached to witnesses' statements.
>
> (*Report of the Commission of Inquiry on Aviation Safety*, vol. 1, pp. 239–40)

While the documents sought from the aviation safety investigators in the Cranbrook crash were ordered produced, it should be pointed out that the documents and pilot information in issue before this Commission were different in the sense that they were internal to Air Ontario and were not prepared or produced for the purposes of assisting aviation safety investigators in their efforts to determine the cause of the Dryden crash. For this reason, it is my view that both Air Ontario and CALPA are in a much more tenuous position in asserting a claim to privilege with respect to those documents and pilot information than was the case in the Cranbrook crash investigation.

The Documents in Issue: The Common Law

Taking into consideration the broadly stated objectives of the Order in Council and the absence of statutory direction with respect to the receipt and admissibility of the documents in issue, I conclude that I should be guided in my decision by the common law principles on privilege and confidentiality.

Evidentiary exclusion on the grounds of privilege is an exception to the presumed rule that all relevant evidence is to be placed before the trier of the fact. Wigmore addressed this fundamental principle of law in the following terms:

> For more than three centuries it has now been recognized as a fundamental maxim that the public (in the words sanctioned by Lord Hardwicke) has a right to every man's evidence. When we come to examine the various claims of exemption, we start with the primary assumption that there is a general duty to give what testimony one is capable of giving and that any exemptions which may exist are distinctly exceptional, being so many derogations from a positive general rule.
>
> (John Henry Wigmore, *Evidence in Trials at Common Law*, vol. 8, revised by John T. McNaughton [Boston: Little, Brown 1961], p. 70)

This fundamental principle was noted by authors Sopinka and Lederman, who stated there is an onus on a party asserting a privilege to establish why an exemption should be recognized:

> The extension of the doctrine of privilege consequentially obstructs the truth-finding process, and, accordingly, the law has been reluctant to proliferate the areas of privilege unless an external social policy is demonstrated to be of such unequivocal importance that it demands protection.
>
> (John Sopinka and Sidney N. Lederman, *The Law of Evidence in Civil Cases* [Toronto: Butterworths 1974], p. 157)

Prior to 1975, common law privileges were generally restricted to communications between solicitor and client, spouses, national security (state secrets), and to briefing assembled in the course of litigation. Inasmuch as the documents in issue do not fall into any of these categories, they clearly would have been subject to production.

In 1975 the Supreme Court of Canada in *Slavutych v. Baker* (1976) 1 S.C.R. 254 appears to have extended the common law to recognize privilege for confidential communications in narrow circumstances. Mr Justice Spence, adopting a test previously advanced by Wigmore, was prepared to grant a qualified privilege to confidential communications if four conditions were met:

1. The communications must originate in a confidence that they will not be disclosed.
2. The element of confidentiality must be essential to the full and satisfactory maintenance of the relation between the parties.
3. The relation must be one which in the opinion of the community ought to be sedulously fostered.
4. The injury that would inure to the relation by the disclosure of the communications must be greater than the benefit thereby gained for the correct disposal of the litigation.

The four conditions set forth in *Slavutych v. Baker* have been judicially interpreted in a number of decisions. One author commented that the Slavutych decision is capable of an equitable and evidentiary interpretation:

> If the equitable interpretation is the correct one then the case simply stands for the proposition that a party who makes a promise of confidentiality in return for information may not subsequently make use of that information as evidence against the promisee. The equitable principle of confidentiality does not prevent the court from compelling the disclosure of some confidential information at the instance of some third party.
>
> (Peter Sim, "Privilege and Confidentiality: The Impact of Slavutych v. Baker on the Canadian Law of Evidence," *Advocates Quarterly* 5 (1984–85): 360)

If one adopts the evidentiary approach, "a privilege could be granted in respect of a confidential communication even if both parties to the communication were strangers to the action" (ibid.).

The issue of qualified privilege of confidential communications was more recently canvassed by the Supreme Court of Canada in *Moysa v. Alberta* (Labour Relations Board) (1989), 60 D.L.R. (4th) 1 (S.C.C.). In this case the Supreme Court considered the decision of the Alberta Labour Relations Board, which ordered a journalist to give evidence with respect to her sources. The board applied Wigmore's test as adopted in the Slavutych decision and determined that the journalist did not fall within the scope of a "qualified testimonial privilege" either under common law or the Charter. Interestingly, Mr Justice Sopinka qualified his remarks relative to Slavutych by stating: "Even if a such qualified

testimonial privilege exists in Canada this appeal must be dismissed as the appellant here does not fall within any of the possible tests which have been proposed as establishing the conditions necessary to justify a refusal to testify" (p. 1578).

In light of these comments, it could be argued that it is still not clear whether the Wigmore test is part of the law of Canada. If one takes the position that Mr Justice Spence's adoption of the Wigmore test is obiter, then production of the documents in issue should clearly not be refused since there is no common law or statutory prohibition that Air Ontario or CALPA could properly rely on in support of exclusion.

On the assumption that the Wigmore test is to be the appropriate test in the circumstances, however, the question is whether the applicants have met the four criteria enunciated by Wigmore.

In the case of *Re: Abel et al. and Director, Penetanguishene Mental Health Centre* (1979) 24 O.R. (2d) 279, the court in dealing with the question of the admissibility of confidential information stated that the courts have generally shown great sensitivity to the need for investigating bodies to rely to some extent on confidential information.

In the present case a balance had to be struck between the need of the community to know the full details and circumstances surrounding the crash and a potential risk that pilots might not be so forthcoming in the future in the completion of reports related to the carrying out of their duties. Although counsel did not present oral argument on their respective positions because the issue was eventually disposed of by agreement, they did, prepare and present to me very full and comprehensive written arguments, which I have considered at length.

Dealing with the first condition of the Wigmore test, although it is questionable whether the information in issue here can be said to have been given "in a confidence that [it] will not be disclosed," for the purposes of this exercise I will assume that this was in fact the case and that the first branch of the test has been met.

I did not hear a great deal of evidence from pilots on the second condition of the Wigmore test – whether confidentiality is essential to the satisfactory maintenance of the relationship – but I did hear some. Based on the evidence I heard and the arguments of counsel, I am of the view that, in the case of aviation safety and accident prevention programs, the assurance to pilots of confidentiality with respect to incident reporting is not only highly desirable but also essential to the satisfactory maintenance of the relation, subject only to a caveat in the case of aviation accident investigation, a matter with which I will deal in my comments regarding the fourth Wigmore condition. I will therefore assume for the purposes of this discourse that the second condition of the Wigmore test has been met.

The third Wigmore condition requires that the relationship be one that the community believes should be fostered. While it may be the view of the community that relations such as solicitor/client, husband/wife, patient/physician should be fostered, it is doubtful that the general community has an overwhelming sense that the management, flight safety officer(employer)/pilot (employee) confidence relationship must be maintained in the case of the investigation of an air accident.

Finally, it is my view that, even if the first three conditions were met, Air Ontario and CALPA could not meet the fourth Wigmore condition that the injury to the relation by the disclosure must be greater than the benefit thereby gained. The potential of injury to the management, flight safety officer (employer)/pilot (employee) relation because of disclosure in the course of an air carrier accident investigation of pilot incident or occurrence reports made in confidence is an extremely remote possibility, given the fact that air carrier accidents are a relatively rare occurrence. In my view the remoteness of the possibility of disclosure ever occurring is a factor to be considered in the balancing of interests.

It is certainly questionable whether pilots or other employees of an airline realistically expect that incident and safety reports given by them, in confidence, and in the context of an air carrier's flight safety or accident prevention program will not be disclosed during the investigation of the uncommon event of an air crash. In fact, some pilots have so indicated in their testimony. It is clearly in the best interests of the pilots themselves, as well as the public, that aviation safety be enhanced by the lessons to be learned from thorough and complete aviation accident investigations.

Having regard to all of the circumstances, I have no difficulty whatsoever in concluding that the injury that might or would inure to the relation is far outweighed by the public benefit realized through the full investigation of air disasters and the remedial actions that may follow to prevent future accidents. The balance, with respect to the question of privilege regarding the documents and information in issue, must, in the case of an aviation accident investigation, surely be tilted in favour of full access, recognizing the general public good.

Conclusion

Having reviewed the legal principles that govern the privilege or confidentiality of statements and reports made by pilots, it seems appropriate to comment generally on the application of such principles to the aviation community.

The evidence shows there are two distinctly different situations in which the issue of privilege/confidentiality arises. The first is in the

context of accident prevention, and the second is in the context of accident investigation. The difference is fundamental.

It is clearly in the interest of accident prevention that pilots be able to author incident reports and complete flight safety–related surveys on a confidential basis, in order to avoid the possibility of harassment or adverse reactions from their employers. Such a regime deserves the fullest support since it obviously promotes candour and honesty. It is for this reason that some air carrier employers use anonymous or non-attributable incident-reporting systems. When such systems are established, however, it ought to be clearly understood they are for the purpose of accident prevention and intended for the furtherance of aviation safety practices. Fortunately, major airline accidents are a relatively rare occurrence, and the occasions on which the confidence of pilot incident reports are likely to be breached in the public interest are rare.

Captain Stewart, the Air Ontario flight safety officer, set up an informal, confidential incident-reporting system for pilots at Air Ontario as part of a safety and accident prevention program, without direction or authority from his employer. Under this system, pilots could report aviation incidents to the flight safety officer, in order to further the safety and accident prevention program of the carrier, with Captain Stewart's assurance that their identity would not be disclosed. Well intentioned as it was, Captain Stewart's offer of confidentiality to the five F-28 pilots, in return for their candour and cooperation in reporting on the F-28 program following the Dryden crash, can only have application in the context of Air Ontario's accident prevention program. It cannot be seen to defeat the introduction of evidence relevant to the aircraft accident investigation itself.

It is an obvious fact that Air Ontario was not charged with the responsibility of the accident investigation into the Dryden crash. Initially that was, by law, the responsibility of the Canadian Aviation Safety Board (CASB) and, subsequently, the responsibility of this Commission of Inquiry. When an aviation accident occurs and an accident investigation begins, the question of privilege for documents or statements previously given by pilots in confidence in the cause of accident prevention becomes an issue for determination by the authority investigating the aviation accident. This cannot be otherwise.

Aircraft accident investigation requires a thorough and detailed analysis of every conceivable element that may have had a bearing on an accident. It is inconceivable that the tribunal charged with the investigation of the Air Ontario crash of flight 1363 would not look at all prior incident reports filed by Captain Morwood or First Officer Mills, such reports being highly relevant to the human performance aspects of the crash investigation.

It is further inconceivable that a proper and thorough investigation of the crash of flight 1363 would not include a detailed review of all Air Ontario corporate practices relating to the F-28 program, including the five pilot questionnaires and interview notes completed specifically with respect to that operation. For a public inquiry to conduct an aviation accident investigation without the examination of such evidence in public would be a contradiction in terms. Unless information such as that contained in the pilot questionnaires, the interview notes, the names of the five F-28 pilots, and all applicable incident reports was made public, the credibility of the Commission of Inquiry as the investigative body, and its findings, would be compromised. The reassurance of the public that all possible factors influencing an aviation accident have been thoroughly investigated would, in my view, be seriously undermined if the information in question were to be treated as privileged, on the basis of confidentiality, and beyond the bounds of public scrutiny.

Although I am totally supportive of a confidential pilot incident-reporting system from the perspective of accident prevention, there can be no doubt whatsoever that the greater public interest must prevail and any privilege attaching to pilot incident reports made in confidence must yield in the case of an aircraft accident investigation. Frankly, I doubt that professional pilots would want it otherwise.

43 OBJECTION TO PRODUCTION OF DOCUMENTS, BASED ON A CONFIDENCE OF THE QUEEN'S PRIVY COUNCIL, SECTION 39, CANADA EVIDENCE ACT, R.S.C. 1985, c.C-5

During the summers of 1989 and 1990, counsel and technical advisers to the Commission, as part of a system approach to accident investigation of the Dryden crash, conducted extensive interviews with many persons involved with Transport Canada. Such interviews resulted in the review and assessment by officials of this Commission of hundreds of documents and files totalling thousands of pages.

The management of Transport Canada was generally cooperative and helpful in locating and reproducing documents for the Commission. However, as the in-depth examination of Transport Canada records progressed, the senior general counsel from the Department of Justice, who represented Transport Canada at the hearings of this Commission, wrote to Commission counsel on August 30, 1990, objecting to the production of certain documents and information, pursuant to the provisions of section 39 of the *Canada Evidence Act*, and advising, inter alia, as follows:

> Finally, in case we cannot reach agreement on this issue, I have to tell you that the Government of Canada objects to produce to the Commission documents or information that disclose the contents of submissions by Transport Canada to Treasury Board, on the ground that these are confidences of the Queen's Privy Council for Canada. If the Commission takes steps to compel production of such documents or information, the Government will produce a certificate as contemplated by s. 39 of the Canada Evidence Act.
>
> (Exhibit 1329, pp. 2–3)

The provisions of section 39 of the *Canada Evidence Act* are as follows:

> (1) Where a minister of the Crown or the Clerk of the Privy Council objects to the disclosure of information before a court, person or body with jurisdiction to compel the production of information by certifying in writing that the information constitutes a confidence of the Queen's Privy Council for Canada, disclosure of the information shall be refused without examination or hearing of the information by the court, person or body.
>
> (2) For the purpose of subsection (1), "a confidence of the Queen's Privy Council for Canada" includes, without restricting the generality thereof, information contained in
> (*a*) a memorandum the purpose of which is to present proposals or recommendations to Council;
> (*b*) a discussion paper the purpose of which is to present background explanations, analyses of problems or policy options to Council for consideration by Council in making decisions;
> (*c*) an agendum of Council or a record recording deliberations or decisions of Council;
> (*d*) a record used for or reflecting communications or discussions between ministers of the Crown on matters relating to the making of government decisions or the formulation of government policy;
> (*e*) a record the purpose of which is to brief ministers of the Crown in relation to matters that are brought before, or are proposed to be brought before, Council or that are the subject of communications or discussions referred to in paragraph (d); and
> (*f*) draft legislation.
>
> (3) For the purposes of subsection (2), "Council" means the Queen's Privy Council for Canada, committees of the Queen's Privy Council for Canada, Cabinet and committees of Cabinet.
>
> (4) Subsection (1) does not apply in respect of
> (*a*) a confidence of the Queen's Privy Council for Canada that has been in existence for more than twenty years; or
> (*b*) a discussion paper described in paragraph (2)(b)
> (i) if the decisions to which the discussion paper relates have been made public, or
> (ii) where the decisions have not been made public, if four years have passed since the decisions were made. 1980-81-82-83, c.111, s. 4.

A total of 24 documents were withheld by Transport Canada and sheltered from review by Commission staff, and from consideration by me, on the basis of the provisions of section 39 of the *Canada Evidence Act*. More specifically, section 39, subsections (2) (a), (c), (d), and (e),

were relied upon in order to deny the Commission access to those documents in issue.

A certificate was issued by the clerk of the Privy Council on January 8, 1991, pursuant to section 39 of the *Canada Evidence Act*, certifying that the 24 documents in question contained information constituting confidences of the Queen's Privy Council for Canada.

It is noteworthy that such a certificate does not include the following information: a description of the document, including the date of the document; from whom and to whom it was sent; and the general subject matter of the document. The utterly barren nature of the information contained in the certificate with respect to all 24 documents is illustrated by the vague and virtually unintelligible description of document number one:

> Document #1 is a copy of a record which consists of information contained in a memorandum the purpose of which is to present proposals or recommendations to Council within the meaning of 39(2) (a).
>
> (Exhibit 1333, attached schedule)

The proceedings of a public inquiry are, by definition, open to the public and are designed to alleviate those concerns and considerations that led to the establishment of the inquiry in the first place. From the perspective of the public interest and the public perception, I have considerable difficulty with the efficacy of the simple expedient of invocation, through the means of a vaguely worded certificate, of section 39 of the *Canada Evidence Act* with respect to documents and information sought by a commission of inquiry established under the *Inquiries Act* by the Government of Canada. When dealing with state secrets and litigious or adversarial interests, the raison d'être of section 39, and its invocation in a proper case, can be understood. However, in the case of a public commission of inquiry, I am troubled by the existence of a possibility for arbitrary application of this section to withhold from public scrutiny, for inappropriate reasons, certain documents and information that may be of probative value in the conduct of a full inquiry and essential to satisfying the broad public interest. The claim to confidence in the case of the 24 documents in question, it is reasonable to assume, was initiated by officials within Transport Canada and advanced by counsel for the Department of Justice who represented Transport Canada at the hearings. While not alleging that this was the case in this Inquiry, it is possible to conceive of a situation in which a departmental official or manager may have inappropriate personal reasons, including the concealing of mismanagement, to assert the protection of section 39 against disclosure of incriminating documents. I am strongly of the view that a commissioner appointed under the *Inquiries Act* should be

empowered to make a determination in an in camera hearing as to the appropriateness of the claim to confidence under section 39.

It is noted that certain provisions of the *Canadian Transportation Accident Investigation and Safety Board Act*, in particular section 30 thereof, allows, for example, that statements for which a privilege is claimed may be reviewed by a court or a coroner in camera.

Subsections (5)(a) and (b) of section 30 state as follows:

> (5) Notwithstanding anything in this section, where, in any proceedings before a court or coroner, a request for the production and discovery of a statement is contested on the ground that it is privileged, the court or coroner shall
> (*a*) *in camera*, examine the statement; and
> (*b*) if the court or coroner concludes in the circumstances of the case that the public interest in the proper administration of justice outweighs in importance the privilege attached to the statement by virtue of this section, order the production and discovery of the statement, subject to such restrictions or conditions as the court or coroner deems appropriate, and may require any person to give evidence that relates to the statement.

It is my opinion that the proper conduct of a public inquiry requires that an amendment be made to the provisions of section 39 of the *Canada Evidence Act* to establish a procedure for an in camera assessment, similar to that provided by section 30(5)(a) and (b) of the *Canadian Transportation Accident Investigation and Safety Board Act*, whereby the commissioner appointed under the *Inquiries Act* to conduct a public inquiry considers whether the public interest in the conduct of the inquiry outweighs in importance the confidence claimed with regard to the document in question under section 39 of the *Canada Evidence Act*. In the alternative, this result might also be achieved by an appropriate amendment to the *Inquiries Act* incorporating provisions similar to those contained in section 30, subsections (5)(a) and (b) of the *Canadian Transportation Accident Investigation and Safety Board Act*. In either event, such a provision would enable the commissioner conducting a public inquiry to determine objectively, in an in camera hearing, whether the public interest in a full and open inquiry outweighs the importance of what is now an unchallengeable and unsupported invocation of an objection under section 39 of the *Canada Evidence Act*, based on a confidence of the Queen's Privy Council.

RECOMMENDATION

It is recommended:

MCR 190 That section 39 of the *Canada Evidence Act*, R.S.C. 1985, c.C-5, be amended to empower a commissioner appointed under the *Inquiries Act* to make a determination in an in camera hearing as to the appropriateness of an objection, pursuant to the provisions of section 39 of the Act and based on a confidence of the Queen's Privy Council, to production of a document. Such determination should take into consideration the nature of the document in issue and its relevance and probative value to the subject matter of the inquiry, and should weigh the claim to confidence asserted under section 39 of the Act against the public interest in full disclosure of such document. In the alternative, the provisions of the *Inquiries Act* should be amended as required to give full meaning and effect to this recommendation.

44 INQUIRIES ACT, R.S.C. 1985, c.I-11, SECTION 13

Section 13 of the *Inquiries Act* states that:

> No report shall be made against any person until reasonable notice has been given to the person of the charge of misconduct alleged against him and the person has been allowed full opportunity to be heard in person or by counsel.

This section of the Act embodies in statute the principle of natural justice, which requires that affected persons be provided with reasonable notice and a fair opportunity to be heard. Because there is little judicial precedent interpreting the specific terms of section 13, its application has tended to vary from one Commission of Inquiry to the next. While I do not propose to conduct a detailed review of the history and jurisprudence that have evolved surrounding this section, I will review the provisions of section 13 and describe how this Commission approached their administration and dealt with their inherent difficulties.

Procedural Fairness

It was my desire and instruction that all proceedings of the Inquiry be conducted in keeping with the principles of procedural fairness and equity. To that end, the following specific procedures were adhered to throughout the course of Commission hearings to ensure that any individual adversely implicated before this Commission, in any respect, had the full right to be heard. It should be noted that all individuals who received letters of notice pursuant to section 13 testified at the hearings of this Commission and, therefore, had the benefit of these procedures.

1 All witnesses who might conceivably be adversely affected by these proceedings were advised of their right to counsel, prior to their being interviewed by Commission staff.

2 All interviews undertaken by Commission staff of potential witnesses who might be adversely affected by these proceedings were either conducted in the presence of their counsel or with the concurrence of counsel for such witnesses. In some cases such witnesses waived the right to have counsel present during their interviews. Copies of interview transcripts were always made available on request.
3 Before a witness testified, a synopsis of such witness's anticipated testimony, based on witness interviews, was forwarded to all participating parties.
4 Before a witness testified, photocopies of all exhibits proposed to be introduced through a given witness were forwarded to all participating parties.
5 All counsel appearing before me were afforded broad rights of cross-examination of all witnesses.
6 All participating parties were afforded the right to file written briefs, as they saw fit, for my consideration.
7 All hearings were conducted in such a manner so as to adhere as closely as possible to commonly accepted evidentiary rules.
8 All counsel appearing before me were afforded the opportunity to call such further evidence as they saw fit, in addition to the evidence called by Commission counsel.
9 All counsel appearing before me were afforded the opportunity to present closing arguments.

To the extent that any party perceived that there were inaccuracies or misstatements on the record, such party, directly or through counsel, was able to take steps to clarify the record – by cross-examining a witness, by adducing new evidence, or by submitting oral or written argument to me. Throughout this process all parties availed themselves of these rights from time to time as they saw fit.

The procedures adopted throughout the Inquiry with respect to the interviewing of witnesses, the adducing of evidence, and the general conduct of the Inquiry were not challenged or questioned by way of judicial review proceedings, or otherwise, by any party or person participating in the Inquiry process.

As an extension of the approach taken throughout the hearings, I have attempted to be as fair as possible in my interpretation of section 13 and in the establishment of procedures to ensure that parties affected at this stage continue to have the protection of procedural fairness, including the right to be heard.

After the hearings of the Commission were concluded on January 24, 1991, I commenced the lengthy process of reviewing transcripts, exhibits, and background informational papers prepared at my request by my staff. By the end of July 1991 the basic direction to be taken was in place

for assessing evidence, making findings, and determining recommendations. From a practical perspective, this was the first time that I was in a position to assess the applicability of section 13 and the procedure to be adopted in that regard.

The Meaning of "Misconduct"

Section 13 states that notice is to be given to persons against whom a "charge of misconduct" is alleged. The *Inquiries Act* does not define the term "charge of misconduct." This is a basic weakness in the Act.

One of the meanings ascribed to the word "charge" in the Oxford English Dictionary is to "accuse." By definition, a charge of criminal misconduct is accusatory, as opposed to the civil misconduct with respect to which an "allegation" is normally made.

I therefore have taken the view that the term "charge of misconduct," as it appears in section 13, *prima facie* encompasses wrongdoing or misconduct of such a nature as to attract a criminal charge. The evidence before this Inquiry, while in some cases disclosing situations that could be seen to be breaches of the provisions of the Air Navigation Orders and/or the Air Regulations, would not in any case support a charge under the criminal law.

On the basis of this interpretation of the meaning of the term "charge of misconduct," there was in fact no necessity to give any person notice under section 13. However, given that the term is not defined in the *Inquiries Act*, I decided out of an abundance of caution to instruct Commission counsel to give notice to all persons against whom comment might be made in my Final Report which could be perceived to be adverse in nature.

This point was reflected in the following paragraph, which was contained in all the letters of notice that Commission counsel sent to affected parties:

> This letter shall constitute notice that the Commissioner will hear and consider any submissions that you or your counsel may wish to make in relation to adverse findings made against you. Although the Inquiries Act addresses a "charge of misconduct", in the interest of fairness, Commissioner Moshansky has directed that notice be afforded to all persons against whom he may make adverse findings. The Commissioner has advised me that he does not view the findings enumerated below as constituting "misconduct" within the meaning of Section 13 of the Inquiries Act.

Attached as appendix L is a sample of the correspondence forwarded by Commission counsel to persons affected.

The Meaning of "Reasonable Notice"

Section 13 requires that affected persons be given reasonable notice of the charge of misconduct alleged against them. In addition to the lack of definition in the *Inquiries Act* of the term "misconduct," a further basic difficulty in administering this section is founded in the lack of direction in that section as to when such notice is to be given. Letters of notice pursuant to section 13 were sent to affected parties by Commission counsel on August 19, 1991, after I was in a position to determine my intended findings.

As previously noted, all individuals who received letters of notice pursuant to section 13 had testified at the hearings of this Commission. It may have been desirable, from the perspective of the affected parties, to serve such notice upon them early in the proceedings of the Commission. However, since the section 13 process is based upon intended findings, from a practical point of view it would have been impossible to extend notice before I had reviewed all of the evidence and the arguments of counsel, and had settled upon the direction that my Report would take.

For example, I considered but rejected the possibility of giving notice to a person before that person's testimony was heard. This approach seems attractive in that it presents the affected party with the opportunity to respond to allegations at the time of his or her testimony, thereby limiting that person's involvement with the Commission process to one appearance. In all other respects, however, I found this to be an untenable procedure. To give notice of an intended finding of alleged misconduct before a person has testified under oath is, in my view, premature and presumptuous. Furthermore, because subsequent evidence often affects the matters in issue, it would be inappropriate, if not impossible, to give notice of an intended finding before all the evidence has been heard and considered as a whole.

The only course of conduct that struck me as plausible was to provide notice to affected parties only after I had considered all of the evidence, had developed the basic outline of my Report, and had come to conclusions as to my intended findings. The proceedings of a commission of inquiry are complex and often protracted, with many witnesses being called and a voluminous record being established. Findings made in this Report are based on the record of this Inquiry. Until the basic drafting of the Report is completed it is unrealistic to expect, and virtually impossible to finalize in a meaningful way, findings of misconduct.

The term "reasonable notice" implies that both the time period afforded to an affected party to respond to notice under section 13 and the substance itself of the notice are adequate such that the "full opportunity to be heard" is meaningful.

The *Inquiries Act* provides no indication that the term "person" is limited in its meaning to individuals. Therefore, I instructed Commission counsel to extend notice under section 13 to corporations and government bodies as well as to individuals.

Parties who received notice pursuant to section 13 were offered the opportunity to submit written submissions, or to attend in camera before me, personally or by counsel, and make oral submissions. In keeping with my strongly held view that all proceedings of this Commission were to be conducted in public, submissions received pursuant to section 13 were made part of this Commission's record.[1]

Section 13 Procedure

Once a first draft of this quite substantial Report was completed, the parties against whom I was considering making adverse comments were identified. Letters of notice such as the model appended to my Report as appendix L were forwarded in confidence to all affected parties and their counsel.

The recipients of letters of notice issued pursuant to section 13 responded to the Commission in a variety of ways. A number of affected parties submitted written submissions, others communicated with Commission counsel, either personally or through counsel by telephoning their comments and observations directly to him, and others appeared before me at in camera hearings. The Commission did not respond in any way, nor did it take counter-positions to these submissions.

As noted above, every individual who received a letter of notice pursuant to section 13 had previously testified at the public hearings of this Commission on the very issues that became the subject of my intended findings. All such testimony given at the public hearings was subject to challenge or clarification under cross-examination by participating counsel, including counsel for each affected party. Also, such counsel had the opportunity to call any witness as well as to make final submissions at the close of the public hearings.

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[1] Oral submissions received in camera in relation to section 13 notices were transcribed by a court reporter.

Section 13 exists above and beyond these procedural safeguards, and it entitles affected parties yet another opportunity to make submissions on their own behalf. The difference is that submissions made pursuant to section 13 are intended as a direct response to a "charge of misconduct."

The rather complex problems resulting from the provisions of section 13 are very well analysed in a textbook entitled *Commissions of Inquiry* (edited by A.P. Pross, Innis Christie, and J.A. Yogis (Toronto, Calgary, Vancouver: Carswell 1990) at pp. 144–45:

> The difficulty with section 13 relates to its administration. How can a commission fairly and at the same time procedurally comply with this provision? If reasonable notice is given during the inquiry, either by specifics in its terms of reference or by allegations during its course, then if the persons affected responded and met the allegations during the course of the inquiry, no special notice need be given under section 13 thereafter. However, if no such notice of allegations of misconduct was given before or during the course of the inquiry, then section 13 must specifically be complied with before the commission's report is delivered. If notice is given literally before the report is released, the opportunity to be heard would be somewhat illusory because the commission would have identified allegations of misconduct in the course of arriving at its conclusion and thus might be said to have effectively made up its mind before notice was given. In such circumstances, one might be forgiven for concluding that the opportunity to be heard was somewhat of a sham. If the commission gives notice after hearing the argument of counsel, the same sort of problem may arise. In any event, in an ideal environment the commission itself should not give notice because the obvious implication is that it may have drawn conclusions in order to draw the indictment. If a formal notice under section 13 is required, it should probably be given privately by commission counsel anticipating all possible findings of misconduct which the commission might make. Further notice can be given if the draft report suggests additional findings of misconduct.
>
> A solution currently in use is to comply with the notice requirement by way of commission counsel's argument. If argument is delivered in writing to all parties and they are given an opportunity to be heard under section 13 thereafter as long as commission counsel's argument is cast broadly enough to include all possible conclusions as to misconduct, then the requisite notice has surely been given. In any event, there is a universal plea for amendment to this clumsy statutory arrangement.

Legal Proceedings Instituted on Behalf of Air Ontario and Certain Named Individuals

Upon receipt of letters of notice pursuant to section 13 on August 19, 1991, Air Ontario and certain affected individuals (hereinafter referred to as the "affected individuals") raised a number of objections, culminating in an application to the Federal Court of Appeal. By virtue of their employment or other association with Air Ontario at the time of the crash, the affected individuals were represented throughout the hearings of this Commission by the same counsel who appeared on behalf of Air Ontario (Paterson, MacDougall).

In general terms, the primary objection raised was that the naming in the Report of affected individuals, that is, those against whom I intended to make comment and findings which could be perceived to be adverse in nature, would violate their rights as guaranteed under section 7 of the *Canadian Charter of Rights and Freedoms*. On October 9, 1991, counsel on behalf of Air Ontario and the affected individuals appeared before me to make submissions.

In a ruling released on October 11, 1991, I rejected the arguments of Air Ontario and the affected individuals and stated, in part:

> I am obligated to report to the Governor in Council on my observations and findings based on the evidentiary record before me. To discharge this mandate and to make meaningful recommendations in the interests of aviation safety, it is necessary that such findings and recommendations be supported by an analysis of specific evidence before me. In my view, a proper analysis of the "contributing factors and causes of the crash of Air Ontario Flight 363" requires observations and findings adverse to some organizations and individuals to be made.
>
> In my view, I would be remiss in carrying out my mandated duties as specified in the Order in Council dated March 29, 1989, if I did not specifically name organizations or individuals, where appropriate, to lend clarity to the narrative of events and to identify clearly and without ambiguity the particular events that in my view contributed to the crash, or that give rise to my specific recommendations concerning aviation safety.
>
> To refer only to nameless and unspecified individuals could do an injustice by casting a cloak of doubt over the conduct of other individuals, who are blameless, and others who did not have the opportunity to appear before me and be heard. This I am not prepared to do.
>
> In my view there is no conflict between the way in which I propose to fulfil my terms of reference and the requirements of

> natural justice, or, in *Charter* terms, the requirements of fundamental justice.

Included in appendix M, attached to this Report, is the full text of my ruling dated October 11, 1991.[2]

Air Ontario and the affected individuals (the applicants) commenced an application for judicial review in the Federal Court of Appeal seeking an order to set aside my ruling of October 11, 1991, and "prohibiting [the Commissioner] from naming individuals in the report in a manner which would causally link those individuals to the cause of the crash of Air Ontario aircraft C-FONF." [Notice of Application.]

A preliminary motion brought by the applicants before the Honourable Mr Justice Hugesson on October 28, 1991, in the Federal Court of Appeal, for an order to seal the court record was dismissed. Sealing the record would have precluded the media from reporting on the judicial review application, and particularly from reporting the names of the affected individuals. In rejecting the applicants' argument, Mr Justice Hugesson made it clear that he was not prepared to see these proceedings occur in secret.

Thereafter, Air Ontario and the affected individuals abandoned their substantive application respecting the naming of individuals in the Report, and they submitted written responses to the notice of intended findings. As was the case with all other submissions received pursuant to section 13, I considered these submissions carefully and, where warranted, incorporated changes into the Report.

This process tends to be unwieldy and cumbersome. In this case it substantially increased the work of the Commission, diverting human resources for a considerable period of time away from the task of finalizing this Report and in fact delaying its completion by approximately two months. Some recipients of letters of notice pursuant to section 13 conveyed to the Commission their surprise and concern at receiving letters of notice at a stage in the proceeding so long after their own involvement. The section 13 process is an awkward legal procedure. It requires a commissioner, after he or she has heard and considered voluminous evidence, in my case over a period in excess of two years, to disclose his or her intended findings to the affected parties and to invite further submissions in response. Thereafter, a due consideration of the submissions involves a time-consuming reassessment of relevant evidence in the context of the response received.

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[2] The names of affected individuals have been deleted from this ruling. After the Federal Court of Appeal rejected their motion to seal the court record, none of the affected individuals chose to pursue the application, or to permit their names to be released publicly. Accordingly, the names of the affected individuals are not reprinted in this context.

The section 13 process is not unlike that facing the Transportation Safety Board of Canada (TSB, the former CASB), under the *Canadian Transportation Accident Investigation and Safety Board Act*, with respect to which I have negatively commented in chapter 41 and which comments in my view are equally applicable to section 13 in the present circumstances.

After carefully reviewing all submissions received in response to the section 13 notices, on balance I found the section 13 process to be largely unproductive. Although the submissions were generally thoughtful, I found that in most instances the matters raised in the submissions of the affected parties had already been addressed and dealt with in the draft of my Final Report. In some instances, the Final Report was amended in a minor way to reflect a valid comment. Overall, however, the responses received did not generate any substantive changes to the intended content of my Final Report. I therefore question, in the case of an Inquiry conducted as a quasi-judicial proceeding with the parties represented by counsel throughout and under the procedures already described, whether the section 13 provisions should apply at all.

RECOMMENDATION

It is recommended:

MCR 191 That the provisions of section 13 of the *Inquiries Act* be reconsidered and that, at a minimum, appropriate amendments be introduced to provide:

(a) a definition of the term "charge of misconduct," with particular focus on the meaning to be attached to the word "misconduct";

(b) more precise direction as to the point in time that notice is to be given under section 13, taking into account the various difficulties that have been pointed out herein; and

(c) an exemption from the notice provisions of section 13 in the case of Inquiries that have been conducted as quasi-judicial proceedings in the presence of counsel for the affected parties and with the attendant procedural and evidentiary safeguards discussed herein, or where it can otherwise be inferred that the person against whom the allegations are made had notice of the charges.

PART NINE

CONSOLIDATED RECOMMENDATIONS

CONSOLIDATED RECOMMENDATIONS

In the course of the hearings of this Commission of Inquiry, certain facts emerged from the evidence that, in the interests of aviation safety, I felt duty-bound to report in two interim reports. The recommendations that commence below are a consolidation of those that appear in my *Interim Report* of 1989, in my *Second Interim Report* of 1990, and in this my Final Report.

For ease of reference, the recommendations are numbered consecutively, beginning with those that appear in my *Interim Report* of 1989. They are preceded by the code "MCR," in accordance with the "short title" (Moshansky Commission) of the reports.

Interim Report, 1989

The Commission recommended that:

With respect to hot refuelling with passengers on board:

MCR 1 The Department of Transport prohibit the refuelling of an aircraft with an engine operating when passengers are on board, boarding, or deplaning.

With respect to wing contamination:

MCR 2 The Department of Transport immediately develop and promulgate an Air Navigation Order applicable to all aircraft that would prohibit take-offs when any frost, snow, or ice is adhering to the lifting surfaces of the aircraft, and the Department of Transport provide guidelines to assist aviation personnel in conforming to the amended orders.

With respect to safety awareness:

MCR 3 The Department of Transport forthwith develop and implement a mandatory and comprehensive education program for all aircrew engaged in commercial operations, including an integrated program for cockpit crew members and cabin crew

members, on the adverse effects of wing contamination on aircraft performance, with provision for knowledge verification; and

The Department of Transport similarly develop and implement a mandatory safety-awareness program for all other personnel involved in flight operations, including managers, dispatchers, and support personnel, on the adverse effects of wing contamination on aircraft performance.

With respect to last-minute check for wing contamination in conditions of adverse weather:

MCR 4 The Department of Transport immediately develop and implement, in consultation with the Canadian aviation industry, a system of mandatory inspection of an aircraft to be carried out by the pilot in command or his designate, or other qualified company personnel, to ensure that the aircraft's critical surfaces are clean before take-off.

In the event that a member of the cabin crew, based on his or her observation, reports a concern regarding wing contamination to the pilot in command, it shall be the duty of the pilot in command to check the wing condition either personally or through another member of the cockpit crew before take-off.

Second Interim Report, 1990

Aircraft Ground De-icing and Related Flight Safety Issues

The problems at Pearson International Airport can be resolved by long-term and short-term solutions. Over the long term, there is an obvious need for more concrete areas at the airport, including additional ramps, runways, and taxiways to relieve congestion. Permanent runway-end de-icing facilities should also be provided for the secondary de-icing of aircraft immediately before take-off in severe weather conditions. It can be expected that these long-term measures will take approximately three to five years to implement. The carriers, for their part, should upgrade their de-icing equipment and procedures and should use type II anti-icing fluids that meet AEA type II specifications to ensure that any departure delays are within the margin of safety. It is expected that these measures can be implemented within a much shorter time frame.

In the short term, several interim measures should be put in place immediately at Pearson International Airport. ATC gate-hold procedures

should be developed and implemented to ensure that departure delays are minimized. Temporary runway-end de-icing facilities for secondary de-icing of aircraft before take-off should be provided. These facilities would include the peripheral expansion of existing taxiways near the end of runways to support de-icing equipment and crews. In keeping with environmental concerns, any excess fluids at these locations should be collected and disposed of in an appropriate manner.

The Commission recommended that:

MCR 5 Transport Canada should, on a priority basis and in co-operation with major Canadian air carriers, implement interim runway-end de-icing/anti-icing facilities at Pearson International Airport. The target should be to have the first of such facilities in place on an interim basis as early as possible in the 1990–91 icing season. Subsequent permanent installations should be designed and constructed to satisfy both safety and environmental concerns.

MCR 6 Transport Canada should examine and, if feasible, implement air traffic control gate-hold procedures at Pearson International Airport as a means of reducing departure delays during conditions of freezing precipitation.

MCR 7 In addition to the already announced feasibility studies for two new runways and supporting taxiways at Pearson International Airport, Transport Canada should investigate and, if feasible, proceed to implement an expansion of existing ramp space on the airport to reduce congestion and consequent departure delays. This undertaking should be given high priority.

MCR 8 Transport Canada should strongly encourage and support the use by Canadian air carriers of type II anti-icing fluids that meet AEA specifications for turbo jet aircraft and, where applicable, for propeller-driven aircraft.

MCR 9 Transport Canada should, in the interest of employee safety and in order to facilitate reliable inspection of aircraft surfaces after de-icing/anti-icing, ensure that adequate and sufficient exterior lighting exists in all gate and ramp areas where de-icing and anti-icing operations are conducted at

Pearson International Airport and at other major airports in Canada.

MCR 10 Transport Canada should, on a priority basis, provide, where necessary, enforcement resources to ensure that the *clean aircraft* regulation is complied with, including runway-end spot checks of aircraft surfaces in adverse winter weather.

MCR 11 Transport Canada should strongly encourage Canadian air carriers to form joint entities to provide all air carrier de-icing/anti-icing services at Pearson International Airport and at other major airports in Canada, and to have available, for use when necessary, equipment capable of applying both type I and type II fluids.

MCR 12 Transport Canada should require that air carriers produce aircraft ground de-icing/anti-icing procedures and training standards for both flight and ground personnel. Implementation of such procedures and standards should be made a mandatory requirement of an air carrier's operating certificate.

MCR 13 Transport Canada's Airports Authority Group should place on the staff of each of its major airports, individuals with substantial flight operations expertise. Such individuals should report directly to the airport manager on any issue related to operational safety. Furthermore, a mandatory reporting process should be put in place to ensure that aviation safety–related issues are promptly brought to the attention of the appropriate decision-making level of senior management and to ensure that such issues are addressed within a specified period of time.

MCR 14 Transport Canada should examine, on a priority basis, Canadian airports served by air carriers to ascertain if the incompatibility between departure delays and de-icing/anti-icing fluid hold-over times, as identified at Toronto's Pearson International Airport, exists at other sites. Should such incompatibilities be found, Transport Canada should ensure that appropriate corrective measures are taken.

MCR 15 Transport Canada and/or the air carriers should, in the interests of ramp employee safety and for environmental reasons, maintain suitable equipment and develop appro-

priate procedures for the clean-up and disposal of de-icing/anti-icing fluids in areas utilized by air carriers.

MCR 16 Transport Canada should take an active and participatory role in the work currently underway within the international aviation community to advance aircraft ground de-icing/anti-icing technology. This should include involvement in the development of international standards, development of guidance material for remote and runway-end de-icing facilities, and development of more reliable methods of predicting de-icing/anti-icing fluid hold-over times.

MCR 17 Transport Canada should strongly encourage Canadian air carriers to provide their flight crews with de-icing/anti-icing fluid hold-over time charts that are based on the most recent technological information. These charts should be used as guidelines.

Final Report

These recommendations are a consolidation of those that appear throughout the Final Report. Although they are grouped according to the chapter they follow, recommendations may relate to more than one issue and should be considered in the context of the complete Report.

Part Two Facts Surrounding the Crash of Flight 1363

Chapter 8 Dryden Area Response

It is recommended:

MCR 18 That Transport Canada ensure that airport crash, fire-fighting, and rescue units carry out emergency response exercises as mandated in applicable Transport Canada documentation, including exercises in winter and in off-airport conditions.

MCR 19 That Transport Canada ensure that all persons involved in crash, fire-fighting, and rescue (CFR) exercises, including CFR chiefs and on-site coordinators, fully understand and carry out their duties during such exercises, as defined in applicable Transport Canada documentation and as they would in an emergency.

MCR 20 That Transport Canada ensure that airports subsidized by Transport Canada have in place at all times up-to-date crash, fire-fighting, and rescue airport emergency response plans and airport emergency procedures manuals approved by Transport Canada.

MCR 21 That Transport Canada ensure that the necessary crash, fire-fighting, and rescue emergency response to aircraft crashes that occur within the critical rescue and fire-fighting access area (CRFAA) be clearly delineated in all relevant documentation, including airport emergency response plans and airport emergency procedures manuals.

MCR 22 That Transport Canada ensure that, as part of the emergency planning process, all responding agencies designated in an airport emergency procedures manual equip themselves with radios capable of communication on a common channel.

Part Three Crash, Fire-fighting, and Rescue Services

Chapter 9 Dryden Municipal Airport Crash, Fire-fighting, and Rescue Services

It is recommended:

MCR 23 That Transport Canada ensure that airport authorities at all Canadian airports, in conjunction with crash, fire-fighting, and rescue (CFR) unit personnel, determine the best and most practical ways to deal with emergencies within each airport boundary and critical rescue and fire-fighting access area (CRFAA), having regard to available CFR personnel and equipment and to the surrounding terrain.

MCR 24 That Transport Canada ensure that all documents which describe or refer to the critical rescue and fire-fighting access area (CRFAA), be they Transport Canada documents or local airport authority documents, are informative, consistent, and unambiguous with regard to the CRFAA, and that such documents specifically define the responsibilities of a crash, fire-fighting, and rescue unit within the CRFAA both within the airport boundaries and/or beyond.

MCR 25 That Transport Canada ensure, through the fire-fighter certification program, and other programs and agreements as necessary, that all crash, fire-fighting, and rescue fire-fighters, including the fire chiefs, are adequately trained.

MCR 26 That Transport Canada proffer for enactment legislation that empowers Transport Canada to ensure that all crash, fire-fighting, and rescue (CFR) personnel, including those at non-Transport Canada–owned and non-Transport Canada–

operated airports, meet Transport Canada CFR training and operating standards.

MCR 27 That Transport Canada encourage all communities where there is an airport with fire-fighting services to include in their mutual aid/emergency response plans specific instructions regarding the duties, responsibilities, and area of authority of each organization that is expected to respond to an aircraft emergency on and/or off airport property.

MCR 28 That Transport Canada ensure that refuellers at Transport Canada–subsidized or operated airports are fully knowledgeable in and follow safe refuelling practices.

MCR 29 That Transport Canada implement a policy of having airport crash, fire-fighting, and rescue units, after appropriate training, responsible for monitoring aircraft fuelling procedures and ensuring compliance with fuelling standards and procedures.

MCR 30 That Transport Canada ensure that training programs for airport crash, fire-fighting, and rescue units include preparing fire-fighters for the realities of an air crash, so that they are not distracted from their primary responsibilities at a crash site.

MCR 31 That whenever a crash, fire-fighting, and rescue (CFR) unit responds to an aircraft crash, Transport Canada, as part of its post-crash response, objectively review and analyse the actions of the CFR unit forthwith, in order that deficiencies in the CFR response can be corrected and useful information, on both the positive and negative aspects of the response, may be passed on to other CFR units.

MCR 32 That Transport Canada ensure that local arrangements be made between airport managers and air carriers that will result in crash, fire-fighting, and rescue personnel being informed of the number of persons on board, fuel on board, and any hazardous cargo on board an aircraft in the shortest possible time following an incident or accident. These procedures should accommodate the possibility that the aircraft flight crew will not be able to provide this information.

Part Four Aircraft Investigation Process and Analysis

Chapter 10 Technical Investigation

Aircraft Crash Charts

Based on the evidence that there were no F-28 aircraft crash charts available at the crash, fire-fighting, and rescue (CFR) unit at Dryden on the day of the accident, and that the flight data and cockpit voice recorders were destroyed by fire, I had intended to make recommendations as to the availability of crash charts and their use in the training of CFR unit personnel. It appears, however, that, since the hearings of this Commission, Transport Canada has been instrumental in ensuring that all Transport Canada–owned and operated airports have aircraft crash charts readily available. These initiatives more than satisfy my concerns in relation to Transport Canada–owned and operated airports, and recommendations for such airports are, accordingly, not required. In relation to all airports in Canada that are not Transport Canada–owned or operated, I make the following recommendation:

MCR 33 That Transport Canada, in cooperation with airport operators, ensure that all Canadian airports not owned or operated by Transport Canada, which service a scheduled air carrier operation, have appropriate crash charts made available to the same degree and extent as at airports owned and operated by Transport Canada.

Survivability of Flight Data Recorders and Cockpit Voice Recorders in Aircraft Crashes

The recorders in C-FONF were destroyed by fire and were of no use to the investigators of this crash. Because recorders capture essential parameters of aircraft information and performance, and are normally the source of the best investigative information, it is vitally important that their crash survivability be enhanced. I therefore make the following recommendations:

MCR 34 That Transport Canada and the Transportation Safety Board of Canada, through national and international initiatives and committees, continue to press for the adoption of more rigorous survivability test requirements for aircraft flight data–recording systems.

MCR 35 That Transport Canada and the Transportation Safety Board of Canada undertake a research program leading to the development of the most suitable deployable or non-deployable aircraft flight data–recording systems that can reasonably be expected to survive any crash and yield usable data.

MCR 36 That Transport Canada and the Transportation Safety Board of Canada study, or cause to be studied, the location of aircraft flight data–recording systems in aircraft, with a view to assuring the survival of the recording systems in any crash.

Letter of Approval Requirement

It is not clear in the Transport Canada instructions whether the issuance of a letter of approval is a requirement. In the approval process of the maintenance control manual or any amendment thereto, in my view, the letter serves a purpose, and thus I make the following recommendation:

MCR 37 That Transport Canada make mandatory the issuance of a letter of approval to an air carrier as an integral part of the approval process of the "maintenance control manual" or any amendment thereto.

Definition of "Essential Equipment"

Testimony given at this Commission's hearings revealed that there is not a definition of the term "essential equipment" that is readily usable or useful to pilots and technicians during normal aircraft operations. It is therefore recommended:

MCR 38 That Transport Canada redefine in Air Navigation Order Series II, No. 20, the term "essential equipment," in order that it be unambiguous and easily understood by pilots and technicians who have to use or refer to the term.

Chapter 11 Aircraft Crash Survivability

It is recommended:

MCR 39 That Transport Canada press for the adoption of standards for aircraft interiors that would prevent the rapid spread of fire and the emission of toxic fumes.

Chapter 12 Fokker F-28, Mk1000, Aircraft Performance and Flight Dynamics

It is recommended:

MCR 40 That Transport Canada ensure that all operations personnel involved in air carrier operations, including managers, operations officers, maintenance personnel, and pilots, be made fully aware of the nature and the danger of wing contamination on both jet- and propeller-driven aircraft.

MCR 41 That Transport Canada ensure that all personnel involved in air carrier operations, including managers, operations officers, maintenance personnel, and pilots, have, and be able to demonstrate, a thorough understanding of all aspects of wing contamination, including its formation, removal, and prevention, and its effects on the aerodynamics of aircraft, with particular emphasis on the insidious nature of the "cold-soaking" phenomenon.

MCR 42 That pilots be informed in writing by Transport Canada how the application of non–standard handling techniques, as described in the "Flight Dynamics" report prepared for this Commission and included in the Final Report as technical appendix 4; as described in the Fokker F-28 Flight Handbook; and as described in testimony by expert witnesses, may assist a pilot to deal with an abnormal or emergency situation discovered during takeoff. It is stressed that this Commission does not advocate the use of non–standard handling techniques to operate aircraft in adverse weather conditions as an alternative to the proper preparation of the aircraft for flight.

MCR 43 That Transport Canada require that aircraft flight manuals and related aircraft operating manuals contain approved guidance material for supplementary operating procedures, including performance information for operating on wet and contaminated runways.

MCR 44 That Transport Canada, in cooperation with aircraft manufacturers and operators, expedite the search for a technically accurate means of defining runway surface conditions and their effects on aircraft performance.

MCR 45 That Transport Canada require air carriers to provide adequate training to flight crews with respect to the effects of contaminated runways on the performance of aircraft in the context of landings, takeoffs, and rejected takeoffs.

MCR 46 That Transport Canada, in cooperation with aircraft manufacturers and operators, expedite the search for an equitable and practical means of requiring operators to adhere to balanced field criteria when operating on wet or contaminated runways.

MCR 47 That Transport Canada, in cooperation with airport operators, expedite the search for more efficient methods of ensuring that runways are maintained free of contaminants that affect the takeoff performance of aircraft.

MCR 48 That Transport Canada participate in and encourage research concerning devices that can allow pilots to assess the external state of the aircraft from within the flight deck. In addition to assisting pilots in assessing possible contamination of the aircraft, such devices would assist pilots in assessing any mechanical or technical problems on the exterior of the aircraft.

Part Five The Air Carrier – Air Ontario Inc.

Chapter 16 The F-28 Program: The Auxiliary Power Unit, the Minimum Equipment List, and the Dilemma Facing the Crew of Flight 1363

It is recommended:

MCR 49 That Transport Canada proffer for enactment legislation which would require that approved minimum equipment lists be in place for all aircraft certified under United States Federal Aviation Regulation 25, predecessor regulations, or equivalent legislation, prior to the use of such aircraft in commercial service in Canada.

MCR 50 That Transport Canada not issue an operating certificate or amendment to an operating certificate to an air carrier operating aircraft certified under United States Federal Aviation Regulation 25, predecessor regulations, or equivalent legislation until required and approved minimum equipment lists are in place.

MCR 51 That Transport Canada ensure that the repair of an unserviceable aircraft auxiliary power unit be deferred only with an operational restriction requiring approved engine ground-start facilities to be available at all airports into which that commercial aircraft is expected to operate. This operational restriction should be included in the aircraft minimum equipment list.

MCR 52 That Transport Canada issue to all pilots a warning pointing out the dangers inherent in pulling circuit-breakers on board an aircraft in order to silence an alarm that may in fact be giving a valid warning.

MCR 53 That Transport Canada require that air carriers have in place appropriate policies and directives to ensure that flight crews,

at the time they receive an operational flight plan, are informed of any aircraft defects that have been deferred to a minimum equipment list.

MCR 54 That Transport Canada require all air carriers that operate aircraft having minimum equipment lists (MELs) to provide approved training to all pilots, maintenance personnel, and dispatchers on the proper use of an MEL.

Chapter 17 The F-28 Program: Lack of Ground-Start Facilities at Dryden

It is recommended:

MCR 55 That Transport Canada ensure that air carriers have operational policies that require the availability of appropriate ground-support facilities at individual airports where the air carrier intends to operate.

MCR 56 That Transport Canada ensure that the operational policies referred to in Recommendation MCR 55 above be contained in the air carrier's operations manuals, such as its flight operations manual and its route manual, and/or the individual aircraft minimum equipment list.

MCR 57 That Transport Canada ensure that, when it is reviewing an air carrier application for an operating certificate or an amendment to an operating certificate, there be a scrutiny of the air carrier's intended aircraft support facilities. Transport Canada then should satisfy itself that operational policies contained in the air carrier's operations manuals adequately accommodate the air carrier's identified and existing aircraft support facilities. No operating certificate or amendment to an operating certificate should be issued unless Transport Canada is so satisfied.

Chapter 18 The F-28 Program: Spare Parts

It is recommended:

MCR 58 That Transport Canada direct its airworthiness personnel to determine themselves whether an air carrier has adequate spare parts for the proper maintenance of aircraft. Under no circumstances should this decision, in effect, be delegated to any person employed by the applicant air carrier.

MCR 59 That Transport Canada proffer for enactment an amendment to Air Navigation Order Series VII, No. 2, Part II, section 12(2), that assists Transport Canada airworthiness personnel to determine whether sufficient spare parts exist. Alternatively, an approved written departmental policy should be promulgated to assist airworthiness personnel to make this determination.

MCR 60 That Transport Canada under no circumstances issue an operating certificate or an amendment to an operating certificate until it is satisfied that all spare parts requirements established by Transport Canada are fulfilled.

Chapter 19 The F-28 Program: Flight Operations Manuals

It is recommended:

MCR 61 That Transport Canada approve a complete copy of the air carrier's operations manual prior to the granting of an operating certificate or an amendment to an operating certificate, and that it approve all amendments and insertions made to that manual.

MCR 62 That Transport Canada proffer for enactment an amendment to Air Navigation Order Series VII, No. 2, requiring Transport Canada to approve one aircraft operating manual for each type of aircraft operated by the air carrier. It is further recommended that such approval be required prior to the granting of an operating certificate or an amendment to an

operating certificate by Transport Canada to the air carrier to allow the commercial use of that aircraft type by the air carrier.

MCR 63 That Transport Canada proffer for enactment an amendment to Air Navigation Order Series VII, No. 2, requiring each air carrier to provide to Transport Canada an air carrier cabin attendant manual for review and approval, either as part of the flight operations manual or as a separate manual.

MCR 64 That Transport Canada proffer for enactment an amendment to Air Navigation Order Series VII, No. 2, deleting the existing tests contained in sections 5, 6, and 33 and replacing them with tests containing the wording "high degree of safety" and "highest degree of safety." Such wording is similar to wording contained in equivalent United States Federal Aviation Regulation legislation dealing with standards and procedures for air carriers using large aircraft.

MCR 65 That Transport Canada proffer for enactment legislation requiring an air carrier to submit its operations manual as defined in Air Navigation Order Series VII, No. 2, to Transport Canada and have it approved prior to the issuance by Transport Canada of an operating certificate or any amendment thereto.

MCR 66 That Transport Canada ensure that air carriers follow and comply with those sections of the operations manuals required by Air Navigation Order Series VII, No. 2.

Chapter 20 The F-28 Program: Flight Operations Training

It is recommended:

MCR 67 That Transport Canada ensure that a systematic and comprehensive discussion of cold soaking be inserted in air carriers' flight operations manuals and/or aircraft operating manuals and in Transport Canada publications such as the Aeronautical Information Publication, to make all pilots and aviation operational personnel aware of the insidious nature

of the cold-soaking phenomenon and the various factors that may cause contamination to adhere to aircraft lifting surfaces.

MCR 68 That Transport Canada ensure that all air carrier pilot flight training be conducted in aircraft flight simulators to the maximum extent possible.

MCR 69 That Transport Canada ensure that an air carrier, if it does not have pilots with the requisite and necessary flight experience on the aircraft when it introduces a new aircraft type, provide sufficient non-revenue flying time for its pilots to enable them to gain the requisite experience.

MCR 70 That Transport Canada encourage air carriers lacking pilots with sufficient experience on a new aircraft type to provide highly experienced pilots from outside the air carrier to assist in training the air carrier's pilots and to fly with them until they have gained an adequate level of flight experience on the new aircraft type.

MCR 71 That Transport Canada proffer for enactment legislation with respect to flight crew pairing, requiring that one of the flight crew members, either the pilot-in-command or the first officer, have substantial flight experience on the aircraft type.

MCR 72 That Transport Canada routinely inspect the activities of aircraft fuellers and ground-handling personnel, to ensure that they are properly performing their duties and to ensure that these personnel have received adequate training.

MCR 73 That Transport Canada ensure that all ground-handling personnel, whether employed by the air carrier or by a contract agent, receive ground-handling training on all aircraft types that they will be required to handle. If personnel are required to refuel aircraft, they should also have knowledge of proper fuelling procedures.

MCR 74 That Transport Canada proffer for enactment regulations setting the training and competency requirements for cabin attendants.

MCR 75 That Transport Canada monitor and periodically audit the cabin attendant training program of all air carriers to ensure that such training meets the standards set.

Chapter 21 The F-28 Program: Operational Practices – Hot Refuelling and Aircraft Ground De-icing

It is recommended:

MCR 76 That Transport Canada ensure that the flight operations manuals of all air carriers specify that hot refuelling is an abnormal and potentially dangerous procedure and that they outline in detail the appropriate procedures to be followed in order to conduct hot refuelling safely.

MCR 77 That Transport Canada, during the process of approval of air carrier manuals, ensure that the provisions of the proposed manuals are consistent and, specifically, that they coordinate the duties of the cabin crew with those of the flight crew concerning hot-refuelling procedures, with appropriate cross-referencing between the manuals.

MCR 78 That Transport Canada ensure that all aircraft fuellers are adequately trained to standards set by Transport Canada.

MCR 79 That Transport Canada ensure the adequate monitoring of aircraft fuelling procedures at Canadian airports.

MCR 80 That Transport Canada encourage air carriers to adjust their operational procedures and policies, where technically feasible, to permit the de-icing of an aircraft with a main engine running.

MCR 81 That Transport Canada ensure that the intention of the "clean-wing" concept, as embodied in Recommendations MCR 2 and 3 above and in recent amendments to the Air Regulations (SOR/90-757) and the Air Navigation Orders (SOR/90-758, and SOR/90-759), be incorporated into and given effect in the appropriate operational manuals of Canadian air carriers.

MCR 82 That Transport Canada ensure, during its normal certification and inspection of Canadian air carriers, that the air carriers have well-organized and effective systems in place for the

coordinated distribution to all pilots and operational personnel of comprehensive operational information – including, but not limited to, information regarding aircraft ground de-icing procedures.

MCR 83 That Transport Canada give serious consideration to appointing an appropriately qualified person as a national resource specialist dedicated to all matters pertaining to aircraft surface contamination and the ground de-icing and anti-icing of aircraft in Canada, in the broadest sense, based upon a similar position in the Federal Aviation Administration of the United States and with similar objectives and responsibilities.

Chapter 22 The F-28 Program: Flight Attendant Shoulder Harness

It is recommended:

MCR 84 That Transport Canada immediately press ahead with appropriate amendments to Air Navigation Order Series II, No. 2, that would require the retrofit of shoulder harnesses and other safety-enhancing features for flight attendant seats on older aircraft types such as the F-28 aircraft.

MCR 85 That Transport Canada assess and amend, as necessary, the procedures required to enact aviation safety–related legislation so as to avoid the bureaucratic process that has delayed the enactment of flight attendant shoulder harness and other important aviation safety–related legislation for the 12-year period since similar legislation was enacted in the United States.

MCR 86 That Transport Canada ensure that individuals from aviation industry positions are not placed on Transport Canada hiring or selection committees where there is any appearance of those individuals having a conflict of interest between their industry positions and their positions on the selection committee.

Chapter 23 Operational Control

It is recommended:

MCR 87 That Transport Canada re-examine its regulatory requirements pertaining to air carrier operational control and flight watch systems, and that it consider putting into place the four-tiered scheme for such systems discussed in chapter 23, Operational Control, of my Final Report.

MCR 88 That Transport Canada proffer for enactment legislation requiring the licensing of flight dispatchers as a prerequisite to their acting as flight dispatchers and training to standards set by Transport Canada, including the passing of appropriate Transport Canada licensing examinations. I commend for Transport Canada's consideration the Federal Aviation Administration licensing regime for flight operational officers (flight dispatchers) in the United States.

MCR 89 That pending implementation of Recommendation MCR 88 above, Transport Canada direct its air carrier inspectors to be diligent in ensuring that flight dispatchers who exercise any operational control over flights meet the minimum training requirements of Air Navigation Order Series VII, No. 2.

MCR 90 That Transport Canada proffer for enactment amendments to Air Navigation Order Series VII, No. 2, that spell out minimum acceptable requirements for an operational flight plan (flight release).

MCR 91 That Transport Canada direct air carrier inspectors to be diligent during in-flight and base inspections in monitoring the accuracy of operational flight releases.

MCR 92 That Transport Canada, when approving air carrier manuals, ensure that flight dispatcher training qualifications set out in a flight dispatcher training manual are no less comprehensive than those requirements set out in the Air Navigation Orders in all cases where such dispatchers may exercise any operational control over flights.

MCR 93 That Transport Canada initiate a continuing program for the monitoring, inspection, and audit of air carrier flight

dispatchers and flight dispatch and flight watch systems, with provision for spot checks and no-notice audits.

MCR 94 That Transport Canada introduce appropriate amendments to the Air Navigation Order Series VII, No. 2, Part III, so as to describe clearly and definitively where system operations control begins and terminates and where operational control begins and terminates.

MCR 95 That Transport Canada require that air carriers provide a system, automated or otherwise, for alerting dispatchers to significant changes in the weather, actual or forecast, at stations significant to flights for which a flight watch is provided.

MCR 96 That Transport Canada require that flight-planning data and procedures used by air carriers for pre-flight planning be accurate and sufficient to provide fuel reserves as stated in Air Navigation Order Series VII, No. 2, and to ensure that aircraft will be operated within the certificated weight restrictions.

MCR 97 That Transport Canada ensure that any flight watch system required under Air Navigation Order Series VII, No. 2, and approved by Transport Canada, provide for direct pilot-to-dispatch communications from the flight deck, where the necessary communications links exist.

MCR 98 That, if a pilot self-dispatch system is to be approved, both Transport Canada and the air carrier ensure that the duties and responsibilities of pilots and dispatchers are clearly and comprehensively covered in the Flight Operations Manual (FOM). It should be made clear in the FOM that no operational decisions are to be made without the captain's agreement.

MCR 99 That Transport Canada require all air carriers to have in place a system that requires ground-handling agents to inform dispatch and/or the captain of any significant change to aircraft passenger or freight loads immediately upon such a change becoming known to the ground-handling agent.

Chapter 24 Flight Safety

It is recommended:

MCR 100 That Transport Canada proffer for enactment legislation to amend Air Navigation Order Series VII, No. 2, section 5, to include the position of flight safety officer as a required air carrier managerial position.

MCR 101 That Transport Canada proffer for enactment legislation to amend Air Navigation Order Series VII, No. 2, section 5, to require the appointment by an air carrier of a person to the position of flight safety officer for the carrier, the qualifications of such person and the description of the duties and responsibilities of such position to be determined by Transport Canada after consultation with the air carrier industry, and to provide that the flight safety officer shall have direct access on a continuing basis to the chief executive officer of the air carrier in flight safety–related matters.

MCR 102 That Transport Canada initiate a program of consultation with Canadian air carriers and the Transportation Safety Board of Canada with a view to having air carriers institute, staff, and operate, on a continuing basis, an effective flight safety program that is based upon the "Flight Safety Functions," identified in the International Air Transport Association Technical Policy Manual, OPS Amendment No. 37, July 1989, referred to in chapter 24 of my Final Report, Flight Safety.

MCR 103 That Transport Canada institute a program for the monitoring of the flight safety programs of Canadian air carriers, with a view to ensuring that each air carrier has in place an effective flight safety program that is appropriate for the size and scope of the carrier's operations.

Chapter 25 Management Performance

It is recommended:

MCR 104 That Transport Canada ensure that Air Navigation Order Series VII, No. 2, section 5, be amended to provide a clear statement of the duties, responsibilities, and qualifications for all air carrier management positions set out therein.

MCR 105 That Transport Canada develop standard criteria for the qualifications of all air carrier management positions set out in Air Navigation Order Series VII, No. 2, section 5. Such criteria should include consideration of the following attributes of the respective management candidates:

- aviation and management experience;
- flying experience;
- professional licences, such as aircraft maintenance engineer or airline transport rating;
- incident and occurrence record;
- knowledge of the *Aeronautics Act*, Air Regulations, and Air Navigation Orders, including air carrier certification requirements and procedures; and
- knowledge of the appropriate air carrier manuals necessary for proper performance of duties and responsibilities.

MCR 106 That Transport Canada ensure that, once standard criteria referred to in MCR 105 are established and published, all air carrier management candidate approvals be subject to such criteria being fully satisfied.

MCR 107 That Transport Canada ensure the ongoing and adequate surveillance and monitoring of new aircraft implementation programs by Canadian air carriers.

MCR 108 That Transport Canada proffer for enactment legislation imposing upon an air carrier concurrent responsibility with the pilot-in-command for the safe and proper crewing, dispatch, and conduct of a flight over which the air carrier exercises any degree of operational control. (The adoption of the United States Federal Aviation Regulation 121 would address this area of concern.)

MCR 109 That Transport Canada ensure that the investigation of any violation of the Air Regulations or Air Navigation Orders committed by an air carrier pilot or an aircraft maintenance engineer include an examination of the air carrier's contribution to the circumstances or environment that may have led to such violation. Where such an investigation reveals that the air carrier's contribution was significant, appropriate and parallel enforcement action should be taken against the air carrier as well as against the individual.

Part Six Transport Canada

Chapter 30 The Effects of Deregulation and Downsizing on Aviation Safety

It is recommended:

MCR 110 That the Aviation Regulation Directorate focus adequate resources on surveillance and monitoring of the air carrier industry, with emphasis on in-flight inspections and unannounced spot checks.

MCR 111 That Transport Canada establish a policy that identifies surveillance of existing air carriers as a non-discretionary task.

MCR 112 That Transport Canada establish a contingency policy in order to meet unusual resource demands without jeopardizing adequate staffing of inspection and surveillance functions.

MCR 113 That Transport Canada pursue extension of the delegation of authority to industry in accordance with the recommendations of Transport Canada's Management Consultant Branch studies completed in 1990 on this subject. Where additional delegation of authority to industry can be achieved safely, such delegation should be authorized in order to allow more effective use of Transport Canada inspectors.

MCR 114 That Transport Canada establish a policy to ensure that required support staff will be provided so that inspector staff will not be misdirected from their operational safety–oriented

surveillance duties in order to perform tasks more appropriately conducted by support staff.

MCR 115 That Transport Canada establish an air carrier inspector training policy to be put into force without further delay, and that the policy ensure the following:

(a) A clear statement of the requisite competencies for each inspector position in the Airworthiness and Flight Standards directorates of Transport Canada.

(b) A statement of the training courses required to be completed successfully by inspectors before they are delegated authority and before their probationary periods end.

(c) Successful completion of training to be required before air carrier inspectors are delegated their authority credentials.

(d) Establishment of a recurrent training program for each discipline of inspection to ensure continued competence.

MCR 116 That Transport Canada improve staffing and recruiting programs to enable aviation regulation requirements to be filled on a high-priority basis. The capability to fast-track such staffing requirements should be achieved as soon as reasonably possible.

MCR 117 That Transport Canada, in consultation with the air carriers, work out an arrangement to accommodate the requirement of no-notice in-flight cabin safety inspections and surveillance on charter flights.

Chapter 31 Aviation Regulation: Resourcing Process

It is recommended:

MCR 118 That Transport Canada, as an integral part of any future policy development process, ensure that thorough impact studies be carried out by experienced analysts, knowledgeable in the subject matter, as a prerequisite to government acceptance and implementation of policies that could have a bearing on aviation safety.

MCR 119 That, where a potentially adverse effect on safety is identified, appropriate measures be taken by the government to preclude the effect before the policy is implemented.

MCR 120 That all senior Transport Canada Aviation Group managers have at their disposal knowledge of the current demands being imposed on branches of the department for which they have responsibility.

MCR 121 That Transport Canada encourage all Aviation Group managers, at any level, to communicate to their superiors any significant aviation safety concern that has come to their attention and that could affect the Canadian aviation industry and public.

MCR 122 That Transport Canada put in place a policy directive that if resource levels are insufficient to support a regulatory or other program having a direct bearing on aviation safety, the resource shortfall and its impact be communicated, without delay, to successive higher levels of Transport Canada management until the problem is resolved or until it is communicated to the minister of transport.

MCR 123 That an air carrier activity reporting system providing a current and reliable picture of the industry be developed and utilized by Transport Canada to determine program resource needs, levels, and direction.

MCR 124 That the process of resource allocation, including staffing standards, be re-examined by Transport Canada with the following objectives:

(a) To establish a staffing standard based on realistic and measurable task performance and frequencies and accepted standards of time required for such tasks.
(b) To reduce the challenging levels from the present seven or more to a lower, more realistic level.
(c) To establish a resource contingency factor for aviation regulation that can, at the discretion of senior management of Transport Canada, be called upon to provide additional resources to meet exceptional safety-related circumstances.

MCR 125 That Transport Canada examine the role of the Resource Management Board, formerly the Program Control Board, with a view to attaining the following goals:

(a) To ensure that the deputy minister of transport will be informed of all aviation safety implications of any resource reductions or denials recommended by the Resource Management Board.

(b) To ensure that within the Resource Management Board and its secretariat there is an individual with aviation operational expertise who is cognizant of safety implications in resource reduction programs.

(c) To ensure that members of the Resource Management Board understand the implications of personnel reductions below the minimum level prescribed by accepted staffing standards.

(d) To ensure that the deputy minister of transport be informed of each instance in which the Resource Management Board or its secretariat returns plans to Transport Canada group heads asking for further justification of resource requirements for aviation safety–related items.

MCR 126 That Transport Canada's Aviation Regulation Directorate develop a system that focuses resources on the areas of highest risk.

Chapter 33 Audit of Air Ontario Inc., 1988

It is recommended:

MCR 127 That Transport Canada review and revise its aviation audit policy, under the direction and approval of the assistant deputy minister, aviation.

MCR 128 That Transport Canada ensure that the rationale for and the importance of the audit program be clearly enunciated to all participating departmental staff and to the aviation industry.

MCR 129 That Transport Canada ensure that the frequency of audits be based upon a formula that takes into consideration all significant factors, including safety and conformance records, changes in type of operations, mergers, introduction of new equipment, and changes in key personnel.

MCR 130 That Transport Canada policy confirm that joint air carrier airworthiness and operations audits are the accepted norm, particularly for large companies; however, other types of audits should be identified and flexibility provided to facilitate no-notice mini-audits or inspections, split airworthiness and operations audits where warranted, and audits of specific areas of urgent concern arising from safety issues that are identified from time to time.

MCR 131 That Transport Canada ensure the availability of qualified managers to manage and coordinate the audit programs.

MCR 132 That Transport Canada ensure the availability of adequate and qualified personnel to support the audit program.

MCR 133 That Transport Canada ensure that minimum training and competency requirements be established for specific positions in the audit process.

MCR 134 That Transport Canada ensure that personnel appointed to an audit have a direct reporting relationship to the audit manager from commencement until completion of the audit and the approval of the final report for that audit.

MCR 135 That Transport Canada reinforce existing policy that requires audit managers to be readily available to audit staff during the conduct of an audit.

MCR 136 That Transport Canada policy manuals provide that an air carrier document review process, including a review of prior audits, be completed prior to the commencement of an audit.

MCR 137 That Transport Canada ensure that time limitations be clearly specified and adhered to within which completion and delivery of audit reports are to be achieved.

MCR 138 That Transport Canada ensure that procedures for immediate response to critical safety issues identified during an audit be instituted and included in the appropriate Transport Canada manuals, and that such procedures be communicated to the Canadian aviation industry.

MCR 139 That Transport Canada ensure that trend analyses be produced from the results of audits and used in the formulation of decisions regarding the type, subject, and frequency of audits.

Chapter 34 Operating Rules and Legislation

It is recommended:

MCR 140 That Transport Canada ensure that managers and inspectors responsible for the application of operating rules are consulted on proposed changes to such rules.

MCR 141 That if the proposed draft operating rules currently being developed by Transport Canada do not fully address and satisfy the concerns identified by this Inquiry and expressed herein, then the entire matter of air carrier operating rules be reconsidered by Transport Canada with a view to adopting the United States Federal Aviation Regulation operating rules applying to air carriers for the Canadian regulatory scheme, amended or supplemented as necessary to accommodate Canadian conditions and purposes, on the highest possible priority basis.

MCR 142 That in the event that the United States Federal Aviation Regulation (FAR) operating rules are adopted by Transport Canada for a required Canadian regulatory scheme, Transport Canada retain an expert in the application of the FARs to assist in their transition into the Canadian regulatory regime.

MCR 143 That in the event of adoption of the United States Federal Aviation Regulation operating rules for a revised Canadian regulatory scheme, all the recommendations contained in this Final Report and in my Interim Reports proposing amendments or changes to existing Air Navigation Orders and Regulations be incorporated accordingly in order to give full meaning and effect to the subject matter under consideration.

MCR 144 That Transport Canada monitor the efforts of the United States Federal Aviation Administration and the European Joint Aviation Authorities to achieve greater commonality in

aircraft design and certification requirements and in operating regulations, with a view to achieving harmonization of Canadian airworthiness and operating rules with the changing international aviation environment.

MCR 145 That Transport Canada adopt the recommendations contained in sections 5.2 and 5.3 of the May 1990 evaluation of Aviation Regulation and Safety Programs, regarding priority setting for regulatory developments and the rule-making process.

MCR 146 That a senior member of the Privy Council staff be included in the proposed senior departmental review committee for priority setting.

Chapter 35 Company Check Pilot

It is recommended:

MCR 147 That Transport Canada pursue a program that would lead to further delegation of authority to company check pilots with air carriers that have demonstrated an exemplary safety record and have in place mature programs for training and checking pilots. To such carriers, delegation of authority with respect to initial pilot proficiency checks and pilot upgrades should be considered as well.

MCR 148 That Transport Canada provide a comprehensive monitoring program of both designated company check pilots and a representative cross-section of each company's pilots to ensure that standards are being properly applied and maintained.

MCR 149 That Transport Canada conduct, and reserve the right to conduct, pilot proficiency spot checks on all air carrier pilots, including designated company check pilots, as it sees fit and without notice.

MCR 150 That Transport Canada conduct initial pilot proficiency checks and line checks with every air carrier in cases where a new aircraft type is being introduced, to ensure that the

required standards are met in that air carrier's operation of the new aircraft type.

MCR 151 That Transport Canada ensure that all pilot proficiency checks on aircraft over 12,500 pounds and on all turbojet aircraft be conducted only by air carrier inspectors or company check pilots holding a current rating for the specific aircraft type on which the check is being conducted.

MCR 152 That Transport Canada ensure that pilot proficiency checks on non-turbojet aircraft and on aircraft under 12,500 pounds be conducted only by air carrier inspectors or company check pilots who are type-rated on that aircraft type or on a generically similar aircraft.

MCR 153 That Transport Canada develop a clear and unambiguous definition of "generically similar aircraft" to be placed in all applicable regulations and supporting manuals.

MCR 154 That Transport Canada, on a priority basis, rewrite the conflict of interest section of its Air Carrier Check Pilot Manual so as to include the following objectives:

(a) to provide a clear and unambiguous definition of what is meant by the term "conflict of interest" as it relates to company check pilots;

(b) to specify those areas in which a conflict of interest can arise, in addition to the area of financial interest.

MCR 155 That Transport Canada provide explicit guidelines to its air carrier inspectors on the subject of conflict of interest for use in evaluating individual candidates for the position of company check pilot.

MCR 156 That Transport Canada conduct an evaluation of potential conflict of interest with respect to each company check pilot candidate, and that a written record be kept of each such evaluation.

Chapter 36 Contracting Out, Waivers, and Spot Checks

It is recommended:

MCR 157 That Transport Canada provide appropriate regulations governing the practice whereby air carriers enter into contracts with other companies or agencies for the provision of facilities or services required under the terms of the air carrier's operating certificate.

MCR 158 That Transport Canada inspectors be provided clear and direct guidance governing their aviation-regulation responsibilities for approval of arrangements and facilities to be contracted out to other companies or agencies by Canadian air carriers.

MCR 159 That Transport Canada set out a clear and unequivocal policy for senior managers specifying the basis upon which a waiver application is to be considered, ensuring that all safety implications are fully considered and satisfied before such waiver is granted.

MCR 160 That Transport Canada take steps to increase substantially the number of no-notice inspections of air carriers, with particular emphasis on safety-sensitive or high-risk areas.

Chapter 37 Safety Management and the Transport Canada Organization

It is recommended:

MCR 161 That Transport Canada proffer for enactment an amendment to the *Aeronautics Act* to delineate clearly the minister's responsibility for aviation safety. Such amendment should emphasize the minister's responsibility to ensure that the department is organized in a manner to keep the minister accurately informed of the ability of Transport Canada to deliver its mandated aviation safety programs effectively.

MCR 162 That Transport Canada be organized in a manner to provide the managerial structure necessary to keep the minister and deputy minister fully and accurately informed of all matters having an impact on aviation safety, and to ensure that appropriate and timely action is taken to address aviation safety concerns.

MCR 163 That Transport Canada state clearly the goals that aviation safety–related programs are expected to achieve, and that it identify the extent of inspection, surveillance, and enforcement activities that must be conducted within a given time frame. Such program goals should be designed in consultation with the Aviation Group's operationally and technically qualified staff.

MCR 164 That Transport Canada create a single position in each region (e.g., a director-general) responsible and accountable for the delivery of the aviation programs assigned to the present Airports Authority Group and the Aviation Group. This position should report directly to a senior administrator or assistant deputy minister at headquarters, who is responsible for the overall delivery of such aviation programs on a national basis.

MCR 165 That the regional directors-general (proposed in MCR 164 above) be authorized to manage their resources in a responsible and flexible manner. Such authority should be accompanied by firm insistence on accountability and a monitoring activity that will ensure responsible management.

MCR 166 That Transport Canada create the position of a headquarters' operational aviation safety officer with an appropriate support staff. This aviation safety officer should report directly to the most senior aviation position in the department and should be responsible for auditing the safety performance of both the Airports Authority Group and the Aviation Group.

MCR 167 That Transport Canada actively participate in the research and development necessary to establish safety effectiveness measurement systems that will lead to the most efficient use of resources in assuring safety. Cooperation with the United States Federal Aviation Administration and other international groups should be encouraged and resourced to obtain

the maximum and most expedient benefits from such programs.

MCR 168 That Transport Canada aviation safety committees, with access directly to the headquarters' operational aviation safety officer, be established in regions and headquarters.

MCR 169 That Transport Canada establish a mandatory education program to ensure that senior managers and officials of the department who are responsible for or associated with aviation programs are aware of the basis for and requirement to support policies that affect aviation safety.

Part Seven Human Factors

Chapter 38 Crew Information

It is recommended:

MCR 170 That Transport Canada address the anomaly existing in Air Navigation Order Series VII, No. 2, with respect to the lack of maximum flight times and maximum flight duty times prescribed for cabin crew members.

Chapter 39 Crew Coordination and the Communication of Safety Concerns by Passengers

It is recommended:

MCR 171 That Transport Canada implement regulations requiring air carriers to provide approved crew resource management training and standard operating procedures for all Canadian air carrier flight crews and cabin crews. This training should be designed to coordinate the flight activities and information exchange of the entire air crew team, including the following particulars:

(a) As part of such crew resource management training, joint training should be carried out involving all captains

and in-charge cabin crew members in order that each fully understand the duties and responsibilities of the other.

(b) All cabin crew members should be given sufficient training to enable them to recognize potentially unsafe situations both in the cabin and outside the aircraft. If it is necessary to prioritize such training, it should first be provided to all in-charge cabin attendants.

(c) As part of normal pre-flight announcements over the aircraft public address system, passengers should be advised that they may draw any concerns to the attention of the cabin crew members.

(d) All cabin crew members should be trained and instructed to communicate all on-board safety concerns they may have or that may be communicated to them by any passenger to the captain through the in-charge cabin crew member, unless time or other circumstances do not permit following this chain of command.

(e) All in-charge cabin crew members, after appropriate training, should be encouraged in adverse winter weather conditions to monitor the condition of the surface of the aircraft wings as part of the pre-takeoff cabin routine, in order to check for contamination, as a supplement to the captain's primary responsibility in that regard.

(f) Pilots should be made aware that concerns raised by cabin crew members should be taken seriously and investigated, where appropriate.

(g) Pilots should be instructed that when travelling as passengers on board an aircraft they should never assume that the operating crew is aware of any situation that they themselves perceive to be a safety concern. Such pilot passengers should be encouraged to raise such concerns with a cabin crew member and request that the information be given to the captain.

MCR 172 That, in order to dispel any possible notion of "professional courtesy" or "respect" precluding the communication of any dangerous situation, specifically addressing the case of off-duty airline pilots, all Canadian air carriers and the Canadian Air Line Pilots Association provide to each of their pilots a clear statement disavowing any notion that professional courtesy or respect precludes an off-duty airline pilot on

board an aircraft as a passenger from drawing a perceived safety concern to the attention of the captain. The statement should indicate that, while it is not mandatory for them to do so, it is appropriate for off-duty pilots who are on board an aircraft as passengers to communicate to the captain, through the intervention of a cabin crew member, any safety-related concerns perceived on board the aircraft.

MCR 173 That the captain of an aircraft operating in adverse winter weather conditions be required formally to advise the in-charge cabin crew member, prior to departure from the gate, whether ground de-icing of the aircraft is to take place and, in order to eliminate potential apprehension on the part of passengers, that they be advised accordingly on the public address system of the aircraft.

MCR 174 That Transport Canada implement a regulation requiring that, at any time prior to commencement of the takeoff roll, in the absence of prior advice by the captain that ground de-icing of the aircraft in adverse winter weather conditions is to be conducted, the in-charge cabin crew member be required to report to the captain his or her own concerns, or any concerns conveyed to him or to her by any cabin crew member or any passenger on board the aircraft, relating to wing contamination.

Chapter 40 Human Performance: A System Analysis

The Human Performance chapter of this Report is, in many ways, a synthesis of all the issues that the crew faced on March 10, 1989, and recommendations on such issues have already been set out elsewhere. It is not my intent to repeat these recommendations in detail in this chapter, but, in the interests of continuity, a synopsis of the principal recommendations already addressed and relevant to Human Performance includes:

- A renewed air carrier certification and inspection program incorporating improved safety regulations, adequate resources, and properly qualified and trained personnel be implemented by Transport Canada on a priority basis.
- Formal training of all air carrier crew members in crew resource management be made mandatory by regulation.

- Crew-oriented training and evaluation be actively pursued jointly by Canadian air carriers and Transport Canada as a more effective means of training and evaluating air carrier flight crews.
- The appointment of an air carrier flight safety officer, approved by Transport Canada, and the establishment of an approved flight safety program by all Canadian air carriers be made a regulatory requirement.
- A systematic and comprehensive discussion regarding cold soaking, based on research such as was conducted for and on behalf of this Commission of Inquiry, be inserted in air carriers' flight operations manuals and/or aircraft operating manuals and in government publications such as the Aeronautical Information Publication in order to make all pilots and aviation operational personnel aware of the various factors that may cause contamination to adhere to lifting surfaces.

Recommendations not previously addressed and specific to this chapter are as follows:

MCR 175 That the Transportation Safety Board of Canada further develop its investigation procedures into human factors aspects of aviation accidents to include a comprehensive section addressing the role of air carrier management in the area of flight safety management; and that the board encourage examination of management failures in a causal sense as part of its accident investigation procedures.

MCR 176 In conjunction with MRC 175 above, that the Transportation Safety Board of Canada actively pursue the amendment of appropriate International Civil Aviation Organization documents to address in a similar manner the role of air carrier management in the area of flight safety management.

Part Eight Legal and Other Issues before the Commission

Chapter 41 The Aviation Accident Investigation Process in Canada

It is recommended:

MCR 177 That the *Canadian Transportation Accident Investigation and Safety Board Act* be amended and regulations be passed to provide that, at any major aircraft accident investigation, parties having a direct interest in the investigation have the right to nominate, in consultation with the investigator in charge, individuals with specific expertise from among their ranks to be involved in the investigation as participants (as opposed to observers) on specific investigation team groups, such as operations, human factors, records, systems, engines, or site survey.

The terms and conditions of such participant involvement should be determined by the Transportation Safety Board of Canada and ought to include provisions placing participants under the authority of and responsible to the investigator in charge, as well as provisions to ensure the absolute confidentiality of all information and documentation gathered relating to the investigation.

MCR 178 That sections 28, 29, and 30 of the *Canadian Transportation Accident Investigation and Safety Board (CTAISB) Act* be amended to provide that witness statements, on-board recordings, and communications records referred to in those sections be made available on a confidential basis to those individuals who have been granted full participant status as representatives of parties having a direct interest in the accident investigation; and that all other provisions of sections 28, 29, and 30 of the *CTAISB Act* be amended accordingly in order to give full meaning and effect to the recommended amendments.

MCR 179 That section 24(2) of the *Canadian Transportation Accident Investigation and Safety Board (CTAISB) Act* be repealed. The Transportation Safety Board of Canada, in order to preserve

its independence, should not be required to send a copy of any draft report on its findings and safety deficiencies that it has identified to each minister, or to any other person with a direct interest in the findings of the board, to provide them with an opportunity to make representations to the board with respect to the draft report, before the final report is prepared.

The other provisions of section 24 of the *CTAISB Act* should be amended accordingly in order to give full meaning and effect to the recommended repeal of section 24(2).

MCR 180 That a section be added to the *Canadian Transportation Accident Investigation and Safety Board Act* to provide to each minister and to each party having a direct interest in the findings of the board an opportunity, after completion of the aviation occurrence investigation and the gathering of the evidence, to make formal submissions within a time frame to be prescribed by the board, for consideration by the board in its deliberations.

MCR 181 That section 26 of the *Canadian Transportation Accident Investigation and Safety Board Act* be amended to incorporate a specific provision entitling a party with a direct interest in an investigation or public inquiry to petition the board for reconsideration of the conclusions of its final report where it is shown that new and material evidence has been discovered subsequent to the conclusion of the investigative process and which might reasonably affect such conclusions or where it is shown that the board's factual conclusions are erroneous.

MCR 182 That the *Canadian Transportation Accident Investigation and Safety Board Act* be amended to provide that all witness interviews conducted by investigators in connection with an aviation occurrence shall be tape recorded and transcribed.

MCR 183 That the Transportation Safety Board of Canada add to its roster the names, addresses, and telephone numbers of highly qualified Canadian and international professional experts, learned in the various disciplines, who are willing to be called upon to assist in any given aviation occurrence investigation. Such a roster should be maintained and updated in consultation with the Canadian aviation community.

MCR 184 That the Transportation Safety Board of Canada, as a matter of policy, establish a closer liaison with the National Aeronautical Research Establishment and the National Research Council Canada and, on an ad hoc basis, utilize to the fullest their facilities and staff experts in various applicable disciplines, to assist in the investigation of aviation accidents.

MCR 185 That sections 24(5) and 24(6) of the *Canadian Transportation Accident Investigation and Safety Board (CTAISB) Act* be amended to empower the board with the responsibility and authority under law to track and follow up on an ongoing basis the action taken by the minister of transport with respect to each board safety recommendation and, if no action is taken by the minister within a specified time frame, to require an explanation in writing by the minister therefor. There should be a legislated mode of procedure that causes Transport Canada to commit itself to a resolution date, within a specified time frame, with respect to all board recommendations that are accepted by the minister, with an explanation for the time frame contemplated. In the event that the minister's action varies from the board recommendation, or if the minister proposes to take no action with respect to a recommendation of the board, then written reasons therefor should be provided to the board, and such reasons should be made available to the public.

The other provisions of section 24 of the *CTAISB Act* should be amended accordingly in order to give full meaning and effect to the noted recommended amendments.

MCR 186 That the annual report of the Transportation Safety Board of Canada continue to set out, as it now does, all of the recommendations, whether interim or final, that have been made by the board to the minister in the preceding year, but that it add comment regarding the actions taken by the minister in regard thereto.

MCR 187 That the Transportation Safety Board of Canada provide forensic training to all its scientists and that the board call upon such outside resources as are necessary to assist them with such training.

MCR 188 That the Transportation Safety Board of Canada formally adopt a policy recognizing that the investigation of human

factors involved in an aviation occurrence is a legitimate pursuit and an important element of the investigatory process.

MCR 189 That the Transportation Safety Board of Canada formally adopt a policy recognizing that it is appropriate for the board to draw inferences of fact based on a preponderance of evidence and to refer to such inferences in its decision-making process.

Chapter 43 Objection to Production of Documents, Based on a Confidence of the Queen's Privy Council, Section 39, Canada Evidence Act, R.S.C. 1985, c.C-5

It is recommended:

MCR 190 That section 39 of the *Canada Evidence Act*, R.S.C. 1985, c.C-5, be amended to empower a commissioner appointed under the *Inquiries Act* to make a determination in an in camera hearing as to the appropriateness of an objection, pursuant to the provisions of section 39 of the Act and based on a confidence of the Queen's Privy Council, to production of a document. Such determination should take into consideration the nature of the document in issue and its relevance and probative value to the subject matter of the inquiry, and should weigh the claim to confidence asserted under section 39 of the Act against the public interest in full disclosure of such document. In the alternative, the provisions of the *Inquiries Act* should be amended as required to give full meaning and effect to this recommendation.

Chapter 44 Inquiries Act, R.S.C. 1985, c.I-11, Section 13

It is recommended:

MCR 191 That the provisions of section 13 of the *Inquiries Act* be reconsidered and that, at a minimum, appropriate amendments be introduced to provide:

(a) a definition of the term "charge of misconduct," with particular focus on the meaning to be attached to the word "misconduct";

(b) more precise direction as to the point in time that notice is to be given under section 13, taking into account the various difficulties that have been pointed out herein; and

(c) an exemption from the notice provisions of section 13 in the case of Inquiries that have been conducted as quasi-judicial proceedings in the presence of counsel for the affected parties and with the attendant procedural and evidentiary safeguards discussed herein, or where it can otherwise be inferred that the person against whom the allegations are made had notice of the charges.