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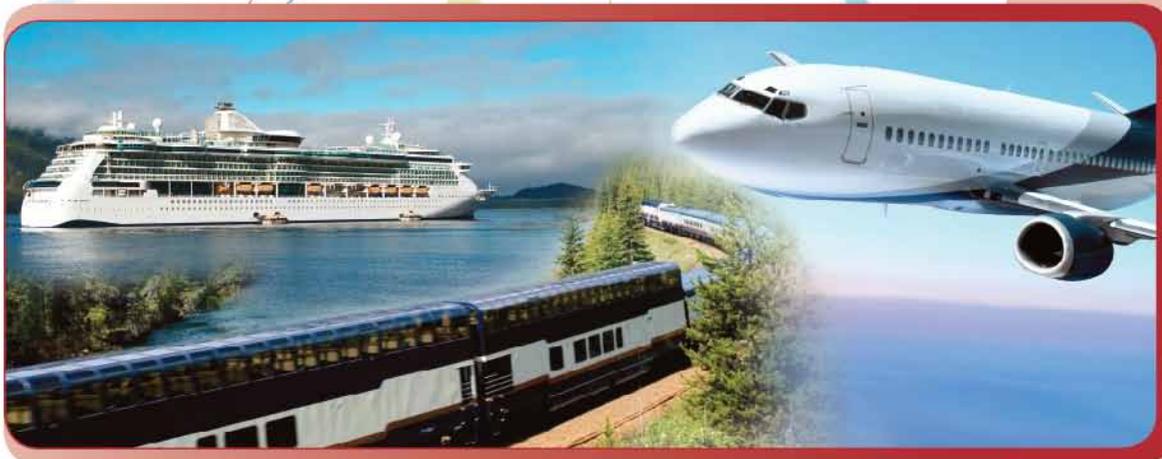
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Airline Industry

**2010 - 2011
Activity Report**



*Travelling Public Program/
Le Programme du public voyageur*

Canada 

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Health Canada

2010 - 2011 Airline Activity Report

Introduction

The Health Canada Travelling Public Program, Environmental Health Bureau is pleased to present its 2010 - 2011 Activity Report for the Airline Industry.

Health Canada is committed to ongoing dialogue with its industry partners. In previous years, this was accomplished, in part, through the Annual Industry Meetings with all passenger conveyance sectors. However, in 2010, Health Canada provided a written 2009 Annual Report in lieu of the annual meeting because of its vital public health role during the 2010 Vancouver Olympics. To continue the tradition of mutual sharing of information, Health Canada welcomes feedback on the contents of this report (please see contact information on p. 8).

Background

Health Canada, members of the airline industry and air transportation associations have collaborated to develop and implement two processes to address potable water quality on aircraft. First, a routine water testing/sampling program was introduced in June 2006 with the purpose of monitoring bacteriological quality of the water on Canadian based airlines having domestic, international and transborder flights. Second, the "Health Canada Standard for the Development of a Potable Water Management Plan for Airlines (PWMP)" was introduced in September 2006 to guide the development of airline-specific potable water management plans. These plans have now been developed by the airline industry and accepted by Health Canada. The airline specific plans now form the basis for our audit program, which was introduced in 2008.

In addition to the sampling program already in place, Health Canada has recommenced potable water sampling onboard foreign based aircraft in several major international airports across Canada. This initiative has been implemented since November 2009.

As well, several projects were conducted by the Travelling Public Program during 2010 and are discussed within this report.

Results and Achievements

1.0 Potable water sampling on Canadian based airlines

1.1 Results by calendar year

Table I - Summary of results obtained since June 2006:

YEAR	AIRCRAFT SAMPLED	SAMPLES TAKEN	NUMBER OF AIRCRAFT WITH ADVERSE BACTERIOLOGICAL RESULTS			
			TOTAL COLIFORM		<i>E. COLI</i>	
			LAVATORY	GALLEY	LAVATORY	GALLEY
2010	404	743	88	4	4	0
2009	428	821	41	11	1	0
2008	469	844	43	8	3	0
2007	496	959	77	2	0	0
2006	328	677	53	2	0	0
Total	2125	4044	302	27	8	0

A total of 4044 water samples were taken onboard 2125 domestic aircraft between June 2006 and December 2010. Sampling was conducted on a monthly basis in Halifax, Moncton, St-John's, Montreal, Ottawa, Toronto, Calgary and Vancouver airports. All samples taken from both the galleys and lavatories were analyzed for total coliform and *Escherichia Coli* (*E. Coli*). The proportion of aircraft with adverse results (described as total coliform and/or *E. coli*, in either or both lavatory and galley samples) is shown in Figure 1.

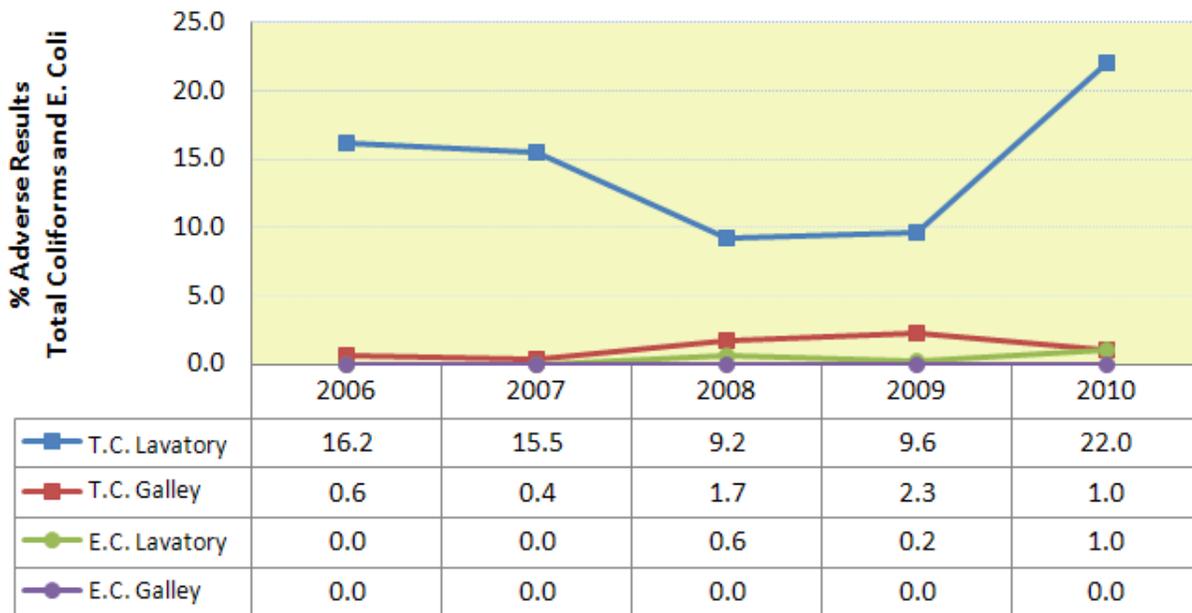


Figure 1: Adverse Bacteriologic Results in Airline Water Sample, 2006 - 2010

Health Canada's water sampling program has evolved since 2006 to reflect changes in the industry, such as the introduction of new routes and increased number of flights by some carriers. The focus on sampling during 2010 was to obtain information on specific issues and thus a risk based approach has been introduced into the water sampling program. This has resulted in sampling that is less representative of the industry overall, therefore, the percentage of aircraft with adverse results in 2010 should not be directly compared to percentages obtained in previous years. However, it can be noted that the number of aircraft with positive total coliform results doubled in lavatory samples since 2009 and the number of adverse results obtained from galley samples fell by more than half since 2009.

The number of samples with E. Coli growth in lavatory samples increased from zero (0) in both 2006 and 2007 to four (4) in 2010. No galley samples have demonstrated the presence of E. Coli.

Representatives of the airline companies were immediately notified by Health Canada of adverse results by telephone and in writing upon receipt of results from the laboratory. The Potable Water Management Plan of each airline outlines corrective actions to be taken in event of adverse results.

2.0 Potable Water Management Plan Audits

2.1 Results by calendar year

Table II - Number of audits performed:

YEAR	INITIAL AUDIT COMPLETED			SECOND AUDIT (Routine or follow-up) COMPLETED		
	Phase I ¹	Phase II	Phase III	Phase I	Phase II	Phase III
2010		3		3	1	
2009	5	1		3	-	
2008	3	-		-	-	
Total	8/8	4/4	To be determined	5/7 *	1/4	

* In 2010, the number of airlines in Phase I fell to seven (7). Six (6) of eleven (11) second (routine) audits have been completed, with the remaining to be completed by mid 2011.

Following the completion of a pilot project in May 2008, Health Canada audits of Potable Water Management Plans (PWMP) began in September 2008. Audits involve reviewing documentation, observing aircraft sanitization and interviewing participants at each maintenance centre of the company being audited. Each assessed component and element

¹ PWMP audit program was divided into Phases I-III based on criteria including size/type of water system, and number of passengers served.

is assigned a “meets” or “does not meet” result. The Health Canada auditor may also make recommendations based on his/her observations.

In order to prioritize the implementation of the audit program with respect to the size and type of aircraft water system and number of passengers served, the domestic based airlines were grouped into two initial phases. Based on the above criteria, eight (8) major airlines participated in Phase I when the program began.

Four (4) airlines have been included in Phase II. Following discussions with airline associations and evaluations of the airlines’ fleet, six airline companies have been identified as potential candidates for Phase III of the audit program; Health Canada hopes to work with these companies in the coming year to develop potable water management plans and commence water sampling onboard their aircraft.

The audit process includes an initial audit of the airline’s compliance with its own PWMP. If the initial audit meets requirements, Health Canada proceeds with a second audit (routine). Should the initial audit not meet requirements, Health Canada performs a follow-up audit within at least six (6) months after the initial audit, depending on the risk level of the deficiencies found during the audit.

All initial audits in Phase I and in Phase II have been completed with success. Six (6) of eleven (11) second (routine) audits have been completed, in 2010, with the remaining to be completed by mid 2011.

Although each of the PWMP evaluated to date have met basic requirements, Health Canada has provided recommendations, especially with respect to aircraft sanitization procedures and encourages the participating airlines to review and implement these recommendations to support continued improvement of their PWMP program.

3.0 Potable water sampling on foreign based airlines

3.1 Results by calendar year

Table III - Summary of results obtained since November 2009:

YEAR	FOREIGN AIRCRAFT SAMPLED	SAMPLES TAKEN	NUMBER OF AIRCRAFT WITH ADVERSE BACTERIOLOGICAL RESULTS			
			TOTAL COLIFORM		<i>E. COLI</i>	
			LAVATORY	GALLEY	LAVATORY	GALLEY
2010	48	89	7	2	0	0
2009	11	15	2	0	0	0
Total	59	104	9	2	0	0

A total of 104 water samples were taken onboard 59 foreign based aircraft in Halifax, Montreal, Ottawa, Toronto, Calgary and/or Vancouver airports between November 2009

and December 31, 2010. All samples were analyzed for total coliform and Escherichia Coli (E. Coli).

Eleven (11) aircraft sampled showed presence of total coliforms. None of the samples were positive for E. Coli.

4.0 Vancouver 2010 Winter Olympics

The Travelling Public Program played a vital role in public health surveillance and emergency preparedness and response prior to and during the Vancouver 2010 Winter Olympics and Para-Olympic Games. Certain airlines worked collaboratively with the bureau during this period with respect to increased water quality surveillance, food temperature monitoring and sanitary inspections. The goal of this initiative was to protect the health of the travelling public and reduce the potential risk of transmission of communicable diseases within Canada. Flights between Toronto, Montreal and Vancouver were targeted for these activities.

5.0 Conveyance Pilot Project

A Conveyance Pilot Project was conducted from June 2010 to November 2010 to assess a variety of public health conditions on conveyances throughout Canada, including aircraft and ancillary food services provided by caterers. Results of the pilot project identified certain deficiencies in food, water and sanitation practices in all of the conveyance sectors that participated in the project. Based on these findings, Health Canada will work closely with industry sectors in order to improve the delivery, quality and accountability of environmental health services, ensuring the health of passengers and of the broader Canadian public.

2011 Health Canada Program Objectives

- Continue the potable water sampling program on domestic airlines:
 - expand sampling on airlines where there has not been extensive sampling;
 - expand the number of airports where sampling is conducted.
- Complete initial audits for Phase II airlines;
- Complete routine audits for Phase I and II airlines;
- Identify airlines to be included in Phase III;
- Work with Phase III airlines in developing a potable water management plan;
- Continue working with airlines and air transportation associations to expand our efforts to address potential public health risks associated with food safety and general sanitation on aircraft.

Summary

Since the implementation of the water sampling program in 2006, results obtained in 2010 showed a rise in the number of aircraft with adverse results compared to previous years.

Health Canada will continue to work collaboratively with the airline industry to reduce the number of adverse results in water samples and to monitor the water quality status of the industry through the Potable Water Management Plan audits. As well, working collaboratively with the airline industry to expand efforts related to food and sanitation public health risks.

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