

VANCOUVER INTERNATIONAL AIRPORT AUTHORITY 2004 Sustainability Report

1.1

Vancouver International Airport Authority is committed to transparency and accountability. We are constantly striving to improve our sustainability reporting. The 2004 Sustainability Report represents an evolution of previous sustainability reporting through the Community and Environment Report, last issued for 2003, and Annual Reports.

For clarity's sake, this report has been separated into four sections: governance (blue), economic (yellow), environmental (green) and social (orange). While these sections represent a practical framework for reporting on sustainability issues, we realize that sustainability involves the successful integration of all four areas. The Airport Authority takes a holistic approach to sustainability issues and recognizes that the divisions in this report are somewhat arbitrary.

The Airport Authority has made every effort to ensure the reliability of all data presented in this report, which has been reviewed and approved by the executive team. Where possible, year-over-year and historical performance data is provided; however, because some indicators are newer and have been tracked for shorter periods of time, there are variations in the reporting periods.

Some of the data in this report is collected on a multi-year cycle. In 2005, a new economic impact study will be conducted; we also plan to conduct a Climate Survey, our employee feedback mechanism.

Where indicated, research for this report has been externally compiled or verified to ensure confidentiality and reliability of data. Many of the documents supporting the 2004 Sustainability Report are public documents that have been subject to both internal and external audit or review.

Except where indicated, the information presented in this report relates exclusively to the activities and initiatives of Vancouver International Airport Authority and its employees.

The Airport Authority's business philosophy is one of continual improvement. We are committed to working with key stakeholders to develop measures and targets that will drive further improvement in our sustainability performance and reporting. We welcome your comments and suggestions (see inside back cover for contact information).

CONTENTS

Message from the President and CEO | 4

Governance | 7

Who is Vancouver International Airport Authority? | 8 What does the Airport Authority do? | 9 Strategic Objectives | 9 The YVR Community | 11 Operating Highlights | 12 Governance | 13 Environmental Management | 14 Ethtics and Integrity | 14 Sustainable Business Partnerships | 17

Economic | 19

Economic Impact | 20 Passengers | 23 Investing in B.C. | 24 Supporting our Communities | 24 Serving our Customers | 26

Environmental | 29

Environmental Policy | 31 Environmental Management Plan | 32 Aeronautical Noise | 34 Air Quality | 42 Contaminated Sites | 45 Environmental Impact Assessment | 46 Hazardous Materials | 46 Natural Habitat | 48 Resource Efficiency | 52 Recycling | 54 Water Quality | 56 Environmental Performance Indicators Summary Table | 57

Social | 59

Our People | 60 Extending Opportunities | 68 Health and Safety | 72 The Accessible Airport | 76 Connecting with our Communities | 78



VANCOUVER INTERNATIONAL AIRPORT AUTHORITY 2004 Sustainability Report



Yancouver International Airport Authority Vancouver

MESSAGE FROM THE PRESIDENT AND CEO

GOOD LONG-TERM PLANNING IS THE KEY TO A SUCCESSFUL FUTURE. AT VANCOUVER INTERNATIONAL AIRPORT AUTHORITY, WE THINK GOOD PLANNING AND SUSTAINABILITY ARE ONE AND THE SAME.

Caring about the economic, social and environmental well-being of our surroundings, our people and our communities is fundamental to the Airport Authority's operating philosophy, and central to our planning process.

The past year was a pivotal one for Vancouver International Airport (YVR). We opened a dialogue with our communities about the future of the airport. Our goal is to generate discussion about YVR's role in a sustainable future for our region, our province and our country. And while our formal long-term planning extends only to 2027, we are looking 40 years out to ensure the decisions we make today don't impede our options tomorrow.

As the operator of a major international airport, our challenge is sustaining and promoting economic growth while minimizing our impact on the environment and our communities. Our sustainability issues are both local and global.

Locally, shifting demographics and the growth of the Lower Mainland population will pose transportation and environmental challenges for the airport and the region in the years to come.

Globally, the growth of Asia as a dominant world market will have profound effects the world over. Seizing the opportunities these changes provide is the goal of our gateway strategy.



Doing so in a manner that will contribute to a sustainable and prosperous future for the region, the province and the country is our commitment to the communities, businesses and people we serve.

Just as we recognize the importance of the airport's economic and social contribution, we are mindful of potential environmental impacts of such things as construction, aviation fuel use, energy consumption, de-icing chemicals and aircraft noise. We've added governance to our sustainability framework to recognize the importance of local accountability for all of these issues. This document reports on our governance, economic, environmental and social performance in 2004. It expands on the format of our 2003 Community and Environment Report, and represents the next step in our quest for continual improvement. Like sustainability, this report is very much a work in progress, and we welcome your input on making it better.

LARRY BERG PRESIDENT & CEO VANCOUVER INTERNATIONAL AIRPORT AUTHORITY

SUSTAINABILITY ISSUES AT VANCOUVER

GOVERNANCE

INTERNATIONAL AIRPORT AUTHORITY ARE MANAGED ON A CROSS-DEPARTMENTAL BASIS. EACH YEAR, THE AIRPORT AUTHORITY MEASURES ITS PERFORMANCE AGAINST EIGHT STRATEGIC **OBJECTIVES TO DRIVE SUSTAINABLE BUSINESS** PRACTICES AND GUIDE THE ORGANIZATION IN FULFILLING ITS MISSION.

OUR MISSION To serve our community by building outstanding airports

OUR VISION YVR: A Premier Global Gateway The Airport Authority: Local Champion, Global Operator

WHO IS VANCOUVER INTERNATIONAL AIRPORT AUTHORITY?

VANCOUVER INTERNATIONAL AIRPORT AUTHORITY IS A COMMUNITY-BASED, NOT-FOR-PROFIT ORGANIZATION THAT OPERATES VANCOUVER INTERNATIONAL AIRPORT (YVR).

YVR is Canada's second-busiest airport and the second-largest international passenger gateway on the West Coast of North America. The airport is in operation 24 hours a day, seven days a week. It is located on Sea Island within the City of Richmond, across the Fraser River from the City of Vancouver, and only 15 kilometres from Vancouver's downtown.

The Airport Authority assumed management of YVR from Transport Canada in 1992. The airport is operated under the provisions of a long-term lease with the Government of Canada.

The Airport Authority has no shareholders and receives no government funding, guarantees or subsidies. All earnings are re-invested in airport development and service improvements.

A community-based Board of up to 15 Directors governs the Airport Authority's activities. Board members include nine Directors appointed by eight nominating entities with key ties to the local community, as well as up to five Directors appointed by the Board from the community at large. The President and CEO sits on the Board as the sole "related Director."

Nominating entities for the Airport Authority's Board of Directors include the Association of Professional Engineers and Geoscientists of B.C., the Cities of Richmond and Vancouver, the Government of Canada, the Greater Vancouver Regional District, the Institute of Chartered Accountants of B.C., the Law Society of B.C., and the Vancouver Board of Trade.

More information on the structure of the Airport Authority's Board of Directors and committees can be found in the Corporate Governance section of the 2004 Annual Report.

For a list of Board Members and their biographies: Visit our website at www.yvr.ca > Airport Authority > Who We Are > Board of Directors > Board Members

WHAT DOES THE AIRPORT AUTHORITY DO?

The Airport Authority is responsible for the development and maintenance of airport infrastructure, and for overseeing day-to-day operations at YVR, including:

- Maintaining overall airport security, including the airport perimeter and restricted areas, such as the airfield or parts of the airfield with direct access to aircraft. The Airport Authority accomplishes this security line through strict monitoring and vigorous patrolling by a contracted security company
- > Baggage carousel and aircraft gate scheduling
- > Emergency planning and preparedness
- > Emergency response services, including aircraft rescue firefighting
- > Information technology and passenger facilitation initiatives
- > Building, grounds and airfield maintenance
- Parking and ground transportation, including Sea Island roadways and the Arthur Laing Bridge
- > Airport related customer service, including customer information counters and the Lost and Found
- > Leasing airport space to tenants, including airlines and retail outlets
- Commercial development at YVR, and airport and passenger marketing

A number of departments provide essential services to support the Airport Authority's activities and the management of YVR; these include Communications, Engineering, Environment, Finance, Human Resources, Information Technology and Strategic Planning.

Our business model is focused on providing high levels of service while keeping our costs down. In the highly competitive airport industry, YVR maintains the lowest landing and terminal fees of all major Canadian airports. A focus on efficiency makes this possible.

In June 2004, the Air Transport Research Society (ATRS), an international society of academics and air transport researchers, gave YVR the North American Excellence Award for "operating efficiency and cost competitiveness." ATRS also named YVR the second most efficient airport in the world.

The Airport Authority is proud of this distinction, and recognizes that the more efficiently we use our resources, the more sustainable our business becomes.

STRATEGIC OBJECTIVES

Sustainability issues at Vancouver International Airport Authority are managed on a cross-departmental basis. Each year, the Airport Authority measures its performance against eight strategic objectives to drive sustainable business practices and guide the organization in fulfilling its mission:

- 1 Keep excellence in safety, security and environmental performance as our first priority
- 2 Be a model of financial viability and economic stimulation
- 3 Maintain a strong, flexible and capable team of professionals
- 4 Continue to excel in open relationships with our stakeholders
- 5 Become the best in airport processes
- 6 Enhance revenues and provide value for money
- 7 Build the Pacific gateway of choice
- 8 Become the best in customer service

Within the framework of the eight strategic objectives, departments work together to undertake a variety of initiatives to meet specific performance targets set on a yearly basis. These targets are recorded and tracked in an annual business plan.

To request a copy of the Airport Authority's 2005 Business Plan: Contact the Communications Department at 604.276.6772 E-mail: community_relations@yvr.ca



THE YVR COMMUNITY

YVR is a community of businesses, organizations and government agencies that work together to provide safe, convenient, 24-hour air travel. The following organizations work with the Airport Authority to provide the major services that passengers will encounter when travelling out of YVR.

Airlines are the Airport Authority's major tenants and business partners. Airlines lease check-in counters, waiting areas and private offices; they are responsible for all baggage handling using infrastructure built and maintained by the Airport Authority.

Canada Border Services Agency (CBSA) provides all of the services associated with crossing the border into Canada, either as a visitor, a returning resident, an importer of goods, or a potential immigrant.

Canadian Air Transport Security Authority (CATSA) is responsible for several key security initiatives at Canadian airports, including pre-board screening of passengers and their belongings, training and certification of screening officers, all security equipment at airports, as well as the purchase, deployment, maintenance and operation of explosives detection systems. The Airport Authority maintains overall airport security and the security of restricted areas at YVR. **RCMP** policing services at the airport are provided through a contract with the City of Richmond.

Transport Canada is the Airport Authority's landlord, and is responsible for the development of regulations and national standards for aviation, as well as for the implementation of air transportation system monitoring, testing and inspections.

U.S. Customs and Border Protection provides pre-clearance for passengers departing YVR for destinations in the United States.

NAV Canada coordinates the safe and efficient movement of aircraft in Canadian domestic airspace and international airspace assigned to Canadian control. NAV Canada's Vancouver Area Control Centre provides air traffic control, information services and alerting services for aircraft arriving and departing YVR.

The YVR community includes a variety of other members, some of which are not as visible to passengers. From cargo handlers, couriers and customs brokers to government agencies and retail and transportation service providers, approximately 400 businesses and organizations make Sea Island their home.

OPERATING HIGHLIGHTS (1995-2004)

Year	Revenue (millions)	Operating Expenses (millions)	Ground Lease (millions)	Excess of Revenue over Expenditures (millions)	Net Assets (millions)	Capital Expenditures for the Year (millions)	Concession Revenue (millions)	YVR Passengers (millions)	YVR Aircraft Movements (thousands)	YVR Cargo Handled (thousands of tonnes)
2004	276.9	158.5	73.9	44.5	580.2	123.0	56.2	15.7	270.4	230.0
2003	246.0	154.1	66.3	25.6	535.6	55.0	55.0	14.3	250.4	215.0
2002	248.5	142.7	66.3	39.5	510.0	44.7	53.5	14.9	257.7	235.0
2001	266.9	138.5	67.8	60.6	470.5	97.8	72.6	15.5	274.4	228.7
2000	252.7	131.7	63.9	57.1	409.9	66.6	68.5	16.0	295.0	251.8
1999	234.8	125.2	60.3	49.3	352.5	92.7	61.2	15.8	323.4	269.1
1998	227.4	119.1	43.5	64.8	303.5	72.6	56.9	15.5	324.9	255.4
1997	208.7	108.4	56.4	43.9	238.7	50.6	52.5	14.8	299.3	260.8
1996	187.1	94.5	51.6	41.0	194.7	115.1	49.0	14.0	289.0	249.2
1995	145.4	45.0	41.8	58.6	153.7	210.4	33.3	12.0	268.0	213.0

In 2004, Standard & Poor's and Dominion Bond Rating Service acknowledged the Airport Authority's strong financial performance

and the efficacy of its business plan with the awarding of AA minus (stable) bond ratings.

2005 Target: AA minus

GOVERNANCE

When the Airport Authority assumed responsibility for YVR in 1992, it put in place governance rules and practices. These can be found in the Board of Directors Manual, which includes:

- > Administrative guidelines
- > Terms of Reference for the Board, Board Chair, President and CEO, and Directors
- > Code of conduct and conflict of interest guidelines
- > Performance evaluation process for the President and CEO, and Board of Directors
- > Director compensation
- > Accountability and transparency rules and practices
- Rules, practices and membership for each of the Board's committees
- > Terms of Reference for financial audit, governance, human resources and compensation, and planning and development committees

Since 1998, the manual has been available on our website.

To review the Board of Directors Manual:

Visit our website at www.yvr.ca > Airport Authority > Who We Are > Board of Directors > Governance Rules and Practices > The Board of Directors Manual

Each year, the Airport Authority prepares a governance report, including corporate governance guidelines and compliances. For the 2004 Corporate Governance Report, see page 81 of the 2004 Annual Report.

The Airport Authority confirms that all Directors have complied in full with the rules concerning conflict of interest.

ENVIRONMENTAL MANAGEMENT

Accountabilities for environmental management initiatives are detailed in the Airport Authority's Environmental Management Plan, and in the Environmental section of this report.

The Environmental Management Plan is designed and implemented with input from the multi-stakeholder Environmental Advisory Committee (see page 32). In October 2004, the Airport Authority introduced a new Environmental Management Plan replacing and updating the 2003 Environmental Management Plan. For a copy of the 2004 Environmental Management Plan: Visit our website at www.yvr.ca > Airport Authority > Environmental > Environmental Reports & Plans

Contact the Environment Department at 604.276.6656 E-mail: environment@yvr.ca

ETHICS AND INTEGRITY

Just as the Board of Directors and the Executive Committee are required to exercise ethics and integrity in all of their business dealings, the Airport Authority expects employees to uphold the highest ethical standards.

In 2004, an official Whistleblowing Policy was introduced by the Board of Directors. The policy applies to all Airport Authority employees and was created to provide a formal means of reporting any possible misdeed within the organization. The policy provides a list of resources for reporting potential misconduct, so employees have alternatives if the person to whom they typically report is the person they believe may be at fault. It also provides assurance that an employee will not be punished for whistleblowing.

The Whistleblowing Policy was included in an issue of the Airport Authority's internal newsletter, which is mailed to employees' homes, and is posted on the Airport Authority intranet, where it can be accessed by employees.





SUSTAINABLE BUSINESS PARTNERSHIPS

The Airport Authority expects business partners to operate in a manner consistent with our organization's values and commitments, and make a positive contribution to the community.

Before beginning a business partnership, the Airport Authority undertakes a rigorous evaluation process. In addition to criteria such as customer service excellence and demonstrated expertise, the evaluation process considers a potential business partner's long-term economic sustainability, as well as its safety, labour and environmental practices.

All contracts formed with business partners and tenants include environmental terms and conditions to ensure our business partners operate in a manner that meets the objectives of the Airport Authority's Environmental Management Plan. All tenants are required to adhere to the environmental requirements of their leases so that collectively we can improve environmental performance.

The Airport Authority's Purchasing Policies can be found on page 88 of the 2004 Annual Report.

In April 2004, Novex Couriers was selected as the local courier service provider for the Airport Authority. Novex, a B.C.-owned company, impressed the Airport Authority with its commitment to sustainable business practices. The courier company utilizes and promotes the purchase of Ultra Low Emission Vehicles (ULEV), which cut vehicle carbon dioxide emissions by 50 per cent; it is in the process of being ISO 14001 certified and uses triple bottom line (environmental, social and financial) criteria to track and report on its corporate performance.

IN 2004, THE AIRPORT AUTHORITY UNVEILED A 10-YEAR, \$1.4-BILLION CAPITAL PROGRAM FOR THE EXPANSION AND IMPROVEMENT OF YVR. THE ECONOMIC IMPACT OF THIS PROGRAM WILL BE SIGNIFICANT, WITH THE MAJOR PROJECTS EXPECTED TO GENERATE 5,200 PERSON-YEARS OF EMPLOYMENT AND \$525-MILLION IN DIRECT GDP.

ECONOMIC

ЕСОНОМІС ІМРАСТ

VANCOUVER INTERNATIONAL AIRPORT IS ONE OF B.C.'S MOST IMPORTANT ECONOMIC ENGINES, WITH AN ANNUAL TOTAL ECONOMIC IMPACT OF MORE THAN \$5.0-BILLION.

The YVR community on Sea Island includes some 400 businesses and organizations employing approximately 26,000 people, making the airport a significant generator of employment.

YVR generates indirect jobs at airport suppliers and industries such as tourism, logging, and international consulting, which rely on airline services; and induced employment as these employees spend their wages in the community.

The last economic impact study involving the Airport Authority was conducted in 2000 by InterVISTAS Consulting Inc. The study measured the macroeconomic impact of the airport, including direct, indirect and induced: employment, wages, economic output, and gross domestic product (GDP). Three hundred and ninety four businesses located on Sea Island or economically linked to the airport were included in the 2000 study.

The 2000 study found that YVR accounted for more jobs than B.C.'s mining and fishing industries combined. Airport jobs—the majority of them with air carriers—tended to have above-average

wages. In 2000, the average wage at YVR was \$44,000 per year, 26 per cent higher than the B.C. average at the time.

In the period from 1997 to 2000, roughly 3,200 direct jobs were created at YVR. In 2004, the Airport Authority unveiled a 10-year, \$1.4-billion capital program for the expansion and improvement of YVR. The economic impact of this program will be significant, with the major projects expected to generate 5,200 person-years of employment and \$525-million in direct GDP.

By 2044, YVR is expected to generate 53,000 direct jobs.

The dollar impact of the airport is measured in two ways: economic output, which is the gross value of the services provided, and roughly corresponds to the gross revenues collected by airport firms—for example, the total amount of ticket and cargo sales; and value added, or GDP.



2000 Economic Impact of Vancouver International Airport VANCOUVER INTERNATIONAL AIRPORT AUTHORITY 2004 SUSTAINABILITY REPORT

Type of Impact	Economic Output	GDP	Employment Income	Employment Jobs	Employment Person-Years
Direct	\$2.800 bil.	\$1.705 bil.	\$1.036 bil.	26,053	23,588
Indirect	\$1.196 bil.	\$0.526 bil.	\$0.442 bil.	14,694	13,304
Induced	\$1.187 bil.	\$0.728 bil.	\$0.574 bil.	19,097	17,290
Total	\$5.183 bil.	\$2.960 bil.	\$2.052 bil.	59,844	54,182

Another major economic impact study of YVR will be conducted in 2005.

In 2000, YVR's 23,588 person-years of employment generated \$1.7-billion in GDP value added. The total GDP (including indirect and induced) related to the airport was \$3.0-billion, and total output was \$5.2-billion.

For highlights of the 2000 economic impact study: Visit our website at www.yvr.ca > Airport Authority > Facts & Stats > Economic Impact For a summary of the 2000 economic impact report (limited copies of the complete report, including scope, methodology and findings, are also available):

Contact the Communications Department at 604.276.6772 E-mail: community_relations@yvr.ca





Passenger Numbers (2000-2004) VANCOUVER INTERNATIONAL AIRPORT AUTHORITY 2004 SUSTAINABILITY REPORT

PASSENGERS

In 2004, 15.7 million passengers passed through YVR on their way to some 90 destinations in B.C., Canada, the United States and overseas, exceeding the Airport Authority's target of 15.1 million passengers and representing a 9.8 per cent increase over 2003.

2005 Target: 16.2 million passengers

The combined effects of global economic uncertainty; September 11, 2001; SARS; the war in Iraq; and airlines' financial difficulties led to a sharp decline in passenger traffic from 2001 to 2003. Passenger traffic climbed in 2004, a pivotal year for the aviation industry. If the Airport Authority achieves its target, 2005 will be the best year on record for passenger numbers at YVR.

YVR is expecting 21 million passengers by 2010. By 2045, that number is projected to grow to approximately 45 million.

For detailed year-over-year passenger and cargo numbers: Visit our website at www.yvr.ca > Airport Authority > Facts & Stats

B.C.-based goods and services purchases



2004 Goods and Services Purchases VANCOUVER INTERNATIONAL AIRPORT AUTHORITY 2004 SUSTAINABILITY REPORT

INVESTING IN B.C.

The Airport Authority is a proud community member. Where it makes economic and business sense, we support Canadian businesses and strive to keep made-in-B.C. dollars in B.C.

In 2005, the Airport Authority will transition to new accounting software that will provide greater options for generating reports and accurately tracking indicators, such as value of locally bought goods and services.

For the purpose of this report, we used our current system to compare the total value of goods and services purchased in 2004 with the value of goods and services purchased from

suppliers located in B.C. In 2004, approximately 68 per cent of the Airport Authority's goods and services purchases were from B.C.-based suppliers.

The Airport Authority knows that education is an important investment in the future. Through participation on its Aerospace and Technology Campus Cabinet, donations in kind, and agreements on lands and leases, the Airport Authority enabled the British Columbia Institute of Technology (BCIT) to move forward on the construction of a larger Sea Island facility that will increase the school's capacity to 1,000 students from 320 at its current airport location.

SUPPORTING OUR COMMUNITIES

The Airport Authority provides financial support to numerous charities, and our employees support local communities through charitable campaigns and volunteerism. Some of the many fundraising initiatives Airport Authority employees supported in 2004 include the United Way, Bowling for Big Brothers, the Heart and Stroke Foundation's Dress Red Day, YVR Golf for Kids, and the CKNW Orphans' Fund through an annual Christmas tree decorating contest.

The Airport Authority's United Way campaign had a record year in 2004. The annual employee campaign raised more than \$92,000—an eight per cent increase over 2003. The Airport Authority matched employee donations for a total contribution of more than \$184,000.

For the fourth consecutive year, the Airport Authority contributed to Richmond Sunset Rotary Club's Winter Wonderland fundraiser and celebration (benefiting local performers and community groups) by donating \$5,000 and sponsoring a Christmas tree at Richmond City Hall. Raising more than \$1.3-million for charities since its inception, YVR Golf for Kids has become the premier charity fundraising event for the airport community. In 2004 alone, \$269,000 was raised in support of Canuck Place Children's Hospice and a variety of children's charities, such as schools Girl Guides and foundations throughout the Lower Mainland.

In addition to charitable donations, the Airport Authority supports the economic health of the local business community and the aviation industry as a whole through sponsorships and donations to industry events, conferences, business associations, and corporate fundraisers. The Airport Authority's corporate support program includes these financial contributions as well as charitable donations.

In 2004, the Airport Authority contributed to more than 90 charities or organizations through the corporate support program.



SERVING OUR CUSTOMERS

At YVR, we never forget that running an airport is as much about serving our customers as it is about maintaining runways, terminals and roads. We actively seek customer feedback and look for new ways to improve customer service.

Our Customer Action Tracking System (CATS) tracks comments, suggestions and queries from airport customers directed to YVR staff. In 2004, 38,782 CATS entries were logged.

Customer Action Tracking System Entries (2002-2004) VANCOUVER INTERNATIONAL AIRPORT AUTHORITY 2004 SUSTAINABILITY REPORT

Customer Action Tracking			
System entries	80,000	76,000	38,782

The drop in entries in 2004 reflects a change in entry logging where multiple entries pertaining to a specific topic are grouped and entered once. This helps us capture overall themes and provides a more accurate picture of total comments, suggestions and queries from airport customers.

As a result of feedback received through the CATS program in 2004, the Airport Authority is developing improved signage and brochures to assist travellers with navigation in the international passenger transfer area.

In 2004, a global survey of international passengers by SkyTrax Research, an independent UK firm, rated YVR the No. 2 airport in North America for customer service. Another international

survey by AETRA ranked YVR No. 5 in the world in its size category for customer service.

Another method the Airport Authority uses to track customer service at YVR is quarterly customer satisfaction surveys conducted by an independent consultant. In 2004, the consultant conducted comprehensive interviews with 2,672 passengers at the airport.

Arriving and departing passengers were intercepted, briefly interviewed and then asked to complete a self-administered survey. Questionnaires were made available in English, French, Chinese and Japanese.

The survey asked passengers to rate their level of satisfaction with a number of key variables. Satisfaction scores were assessed on a five-point Likert scale, where:

- > 1 = Very dissatisfied
- > 2 = Dissatisfied
- > 3 = Neither satisfied nor dissatisfied
- > 4 = Satisfied

2004

> 5 = Very satisfied

In 2004, 89 per cent of all passengers expressed a degree of satisfaction with YVR's facilities and services. This resulted in a strong overall satisfaction score of 4.3, which exceeded the Airport Authority's target of 4.1, and matched the 2003 result, the highest rating since the surveys began in 1993.

2005 Target: Average satisfaction rating of 4.1



The surveys found that four key areas have the greatest influence on passengers' overall satisfaction with YVR: safety and security, efficiency, ambience, and concession services.

In 2004, the Airport Authority undertook a number of programs to achieve improvements in these areas. YVR FasTrack is an initiative that includes a series of programs with Canadian and U.S. government agencies—including CANPASS Air, NEXUS Air and INSPASS—designed to get passengers quickly and efficiently through the airport.

In addition to making processing more efficient for low-risk travellers, initiatives such as NEXUS Air and CANPASS Air allow inspections officers to focus their energies on higher-risk passengers.

Another FasTrack program is the deployment of additional common-use self-service kiosks, which provide a quick and convenient alternative to traditional check-in processes. A typical check-in at a kiosk takes less than 60 seconds.

Passenger processing has also been made more efficient through the introduction of FasTrack priority lanes at passenger screening points, as well as drop boxes to allow passengers to have items prohibited on flights returned to them.

For more information on YVR's FasTrack initiatives: Visit our website at www.yvr.ca > Flight Information > FasTrack Border In 2003, the Airport Authority awarded a significant, five-year janitorial contract to Canadian-owned Marquise Facilities Corporation. In February 2004, the company took over janitorial services at YVR. Four months later, Marquise and the Airport Authority were named co-winners of the B.C. Shopping Centre Association's Cleanliness/Housekeeping award, reflecting a shared commitment to customer service excellence.

Very dissatisfied
Dissatisfied
Neither satisfied or dissatisfied
Very satisfied
Total satisfied

An ambience audit conducted in 2004 resulted in a number of new initiatives. During the past year, we began work on an integrated signage plan; lighting upgrades; millwork, carpet and tile refinishing; and a landscaping program.

In 2004, 21 new retail and restaurant outlets opened at YVR. The airport's retail offerings will continue to expand in 2005, when 246 square metres of new shops and services will be added in the U.S. departures area.

YVR was the first airport in the world to have a 7-Eleven convenience store. In 2004, the store was recognized by Airport Council International-North America as the most innovative concession in its category.

THE AIRPORT AUTHORITY IS COMMITTED TO OPERATING YVR IN A MANNER THAT MINIMIZES ITS IMPACT ON THE SURROUNDING ENVIRONMENT, BOTH NATURAL AND URBAN.

ENVIRONMENTAL

ENVIRONMENTAL

AS MAJOR CENTRES OF TRAFFIC, ACTIVITY AND INFRASTRUCTURE, AIRPORTS CAN CAUSE A VARIETY OF ENVIRONMENTAL IMPACTS. THESE IMPACTS RESULT FROM THE COMBINATION OF LARGE NUMBERS OF PEOPLE, VEHICLES, FACILITIES AND SERVICES NECESSARY FOR THE PROVISION OF SAFE, CONVENIENT, 24-HOUR AIR TRAVEL.

The Airport Authority's challenge is balancing the potential environmental impacts of operating a major international airport with its positive contribution to the region (see page 20), and the growing demand for air travel.

We meet that challenge with an Environmental Policy that strives to eliminate environmental impacts wherever possible. Where eliminating environment impacts is not feasible, the Airport Authority looks to reduce them as much as possible and, where impacts are unavoidable, manage them with the goal of continual improvement. YVR is located on federal property on Sea Island at the mouth of the Fraser River, within the City of Richmond, and across the river from the City of Vancouver. Operating YVR 24 hours a day while minimizing the level of disturbance from airport operations on our neighbours is one of the Airport Authority's challenges.



ENVIRONMENTAL POLICY

The Airport Authority envisions a sustainable future for YVR, and will advance this vision by increasing its contribution to the economic, social, and environmental well-being of the Fraser River Estuary, British Columbia and Canada.

The Airport Authority's Environmental Policy provides full support to the environmental aspects of sustainability through actions of continual improvement, including:

- Minimizing risk and contributing to improved economic performance through the implementation of environmental plans and programs for YVR
- Exceeding or complying with all applicable environmental laws and regulations
- Promoting open discussions among all stakeholders about the environmental aspects of operations and developments
- Making informed choices that consider environmental, social and economic implications
- > Training, supporting and motivating our employees and business partners to be aware of and meet their environmental responsibilities
- > Setting specific measurable environmental objectives and targets and publicly reporting the results

ENVIRONMENTAL MANAGEMENT PLAN

The Airport Authority is committed to operating YVR in a manner that minimizes its impact on the surrounding environment, both natural and urban. The Environmental Management Plan sets out the policy and programs the Airport Authority undertakes to meet this commitment.

The Environmental Management Plan is reviewed yearly and describes environmental policies and programs around key sustainability issues overseen by the Airport Authority's Environment Department. These programs include:

- > Aeronautical Noise
- > Air Quality
- > Contaminated Sites
- > Environmental Impact Assessment
- > Hazardous Materials
- > Natural Habitat
- > Resource Efficiency
- > Recycling
- > Water Quality

Federal standards are used as the basis for environmental programs and performance. However, in the interests of responsible environmental management, the Airport Authority is working to meet or exceed additional, self-imposed standards, including the adoption of applicable provincial and regional regulations. This means that if provincial, regional or municipal guidelines provide pertinent standards, the Airport Authority will endeavour to meet those standards. The Airport Authority also requires tenants to meet the same standards.

To ensure that we are continually improving our environmental performance, the Airport Authority's environmental management system was developed in accordance with the principals of ISO 14001, the internationally recognized standard that outlines the structures of environmental management systems.

ENVIRONMENTAL ADVISORY COMMITTEE

The Environmental Advisory Committee brings together diverse stakeholders to monitor and provide advice on the design and implementation of the Airport Authority's Environmental Management Plan. The committee meets quarterly and includes representatives from:

- > Airline (Air Canada)
- > Citizen representatives from Vancouver and Richmond
- > City of Richmond (Urban Development Division)
- > City of Vancouver (Vancouver Coastal Health Authority)
- > Department of Fisheries and Oceans (Habitat Management)
- > Environment Canada (Canadian Wildlife Service)
- > Environment Canada (Environmental Protection Branch)
- > Fraser River Coalition
- > Fuelling Operator (GlobeGround)
- > Greater Vancouver Regional District
- > Musqueam Indian Band
- > North Fraser Port Authority
- > Transport Canada (Environmental Services)
- > Vancouver Natural History Society

For a summary or complete copy of the 2004 Environmental Management Plan:

Visit our website at www.yvr.ca > Airport Authority > Environment > Environmental Reports & Plans

Contact the Environment Department at 604.276.6656 E-mail: environment@yvr.ca



AERONAUTICAL NOISE

Managing airport noise to balance the community's desire for safe, convenient 24-hour air travel with enjoyable urban living is the Airport Authority's commitment to our neighbouring communities.

While most of the noise at an airport is associated with take-offs and landings, there are number of other sources of noise, such as:

- > Aircraft over-flights of residential neighbourhoods
- > Engine run-ups, which are tests performed on aircraft engines and systems after maintenance to ensure they are functioning safely
- Reverse thrust, which is used to slow an aircraft when landing on the runway
- > General noise from ground service equipment

The Airport Authority has a comprehensive noise management program that includes the YVR Aeronautical Noise Management Committee, a five-year noise management plan, published noise abatement procedures, an airport noise monitoring and flight tracking system, and complaint management and response.

AERONAUTICAL NOISE MANAGEMENT COMMITTEE

The Aeronautical Noise Management Committee was formed to provide a forum for community and industry stakeholders to discuss and consider aeronautical noise management issues at YVR. The committee meets quarterly and is chaired by the Airport Authority's Vice President, Community and Environmental Affairs. Members of the committee are independently appointed by their respective stakeholder groups, which include:

- > Citizen representatives from Richmond, Vancouver and Delta
- > City of Richmond (Planning)
- > City of Vancouver (Vancouver Coastal Health Authority)
- > Musqueam Indian Band
- > Airlines (Air Canada, Air Canada Jazz)
- > Air Transport Association of Canada
- > Canadian Business Aircraft Association
- > NAV Canada
- > Transport Canada
- Vancouver International Airport Authority (Environment and Operations Departments)




NOISE MANAGEMENT PLAN

A new five-year Noise Management Plan, developed throughout 2003 by the Airport Authority with input from the Aeronautical Noise Management Committee, was approved by the Minister of Transport in 2004. The 2004-2008 Noise Management Plan, the third plan since the Airport Authority assumed management of YVR in 1992, contains 17 initiatives that will guide noise management efforts at the airport over the next five years. In 2004, the Airport Authority:

- > Held open houses in Burkeville, North Delta, South Vancouver and Richmond regarding aircraft noise and south airfield construction projects during the summer of 2004
- > Held an open house in Richmond's West Cambie neighbourhood to discuss noise management practices at YVR and receive feedback from the community
- > Worked with the City of Richmond on the development of the City's new Aircraft Noise Sensitive Land Use Development Policy, which prohibits residential development in some high noise areas for the first time, and expands areas requiring noise mitigation and covenants
- > Completed construction of a dedicated engine run-up area
- Met with aircraft maintenance engineers to discuss engine run-up impacts on the community and to review the use of the new run-up area
- > Provided the airport's long-term planning team with input on potential noise impacts of future development options at YVR

In 2004, the Airport Authority completed construction of a new \$5-million engine run-up area at the western edge of Sea Island. YVR's 63,000 square-metre concrete run-up pad provides a safe location for full power engine tests for aircraft, and allows much of the associated noise to be directed toward the ocean and away from neighbouring communities. The need for a new engine run-up area at YVR was identified by stakeholders and the Aeronautical Noise Management Committee in 1999.

NOISE ABATEMEN

Noise abatement procedures for YVR are published in the Canada Air Pilot and the Canada Flight Supplement. Some of the published noise abatement procedures specific to operations at YVR include:

- > Preferential use of runways to place the noisiest operations over the water whenever possible
- > Restricting times and locations that engine run-ups can be performed
- > Requiring prior approval for jet operations between midnight and 7 a.m.
- > Normally closing the north runway from 10 p.m. to 7 a.m.
- > Restricting the departure of older, noisier jet aircraft during night-time hours

Procedures in the Canada Air Pilot are enforceable; Transport Canada Civil Aviation Enforcement investigates suspected violations and can issue monetary fines. In 2004, five carriers were suspected of violating the published noise abatement procedures for YVR and were reported to Transport Canada Civil Aviation Enforcement. As a result, two warnings were issued and three cases are still under investigation. All five violations were related to departures during the night-time hours without the Airport Authority's prior approval.

Also in 2004, a \$17,500 fine was issued to a carrier that operated in violation of noise abatement procedures in 2003.

AIRPORT AUTHORITY NOISE MONITORING TERMINALS



MONITORING AIRCRAFT NOISE

The Airport Authority has a sophisticated aircraft noise monitoring and flight tracking system to collect and assess aircraft noise, and to determine where and when it occurs and how it might be reduced.

NOISE MONITORING TERMINALS

The Airport Authority has 16 noise monitoring terminals (NMTs) located throughout the community. Combined with radar, the system is used to monitor and assess aircraft contribution to community noise levels by correlating the noise created by aircraft in proximity to each NMT.

While there are daily and monthly variations in the measured average noise level at each of the Airport Authority's NMTs, the annual average noise level has remained relatively constant over the past several years.



COMPLAINT TRACKING

The Airport Authority's Noise Information Line (604.207.7097) is staffed 24 hours a day and provides callers with access to noise management professionals or Airport Operations Officers capable of responding to immediate questions or concerns. Community members are encouraged to call the Noise Information Line to register concerns about airport noise. All calls are treated confidentially and responded to on an individual basis if so requested.

Complaints to the Noise Information Line are logged in a database and used to analyze and identify trends. This allows the Airport Authority to better understand activities of concern and the noise impacts of both regular and irregular airport operations. Reports on the noise complaints are presented to the Aeronautical Noise Management Committee at each of its quarterly meetings. The committee and Airport Authority staff evaluate safe and sustainable noise abatement options and recommend possible changes to minimize disturbances to the community.

In 2004, the Airport Authority received 793 noise complaints, a 77 per cent increase over 2003. In general, the Airport Authority receives more noise complaints during the busiest periods at the airport, including holidays and summer months. Over 2004, the greatest increase in complaints occurred in the summer months, when the Airport Authority undertook a series of major construction projects on the south airfield. The work involved extending the south runway 150 metres, repaying the entire runway surface, upgrading associated lighting systems, and the construction of a dedicated engine run-up area.

The work was completed during night-time hours, when air traffic volumes are lower, to allow work crews uninterrupted access to the runway surface and reduce impacts to airport operations. During a 14-week period over the summer months, the south runway, which is normally used on a 24-hour basis, was closed from 7:30 p.m. to 7 a.m., and the north runway, which is normally closed at night, was used for all departures and arrivals. This caused aircraft noise to be redistributed and resulted in increased calls to the Noise Information Line.

Such major work requiring a runway shut-down for extended periods is rare. However, each year, the south runway is closed during night-time hours for a one-week period in the summer to perform annual maintenance and upgrades. In 2005, the runway will be closed from 9 p.m. to 7 a.m. the week of July 22-29. During this period, the north runway will be used for all departures and arrivals.





Total Noise Complaints (2001-2004) VANCOUVER INTERNATIONAL AIRPORT AUTHORITY 2004 SUSTAINABILITY REPORT

By integrating noise monitoring, aircraft flight track investigations, statistical analysis, weather analysis, complaint investigation, and mapping and reporting, the Airport Authority gains a greater understanding of aircraft noise. This allows us to evaluate and compare proposed changes to airport operations, and reduce the impact of noise on neighbouring communities wherever possible.

VANCOUVER INTERNATIONAL AIRPORT AUTHORITY 2004 SUSTAINABILITY REPORT

2004 Noise Complaints

Detailed information on the results of the 2004 Aeronautical Noise Management Program is contained in the 2004 Aeronautical Noise Management Report.

NORTH RUNWAY DEPARTURES

Some of YVR's neighbours will notice a change to runway operations in the summer of 2005. At present, the north runway is generally used from 7 a.m. to 10 p.m., and primarily for arrivals. The south runway is operational 24 hours a day and is used for both arrivals and departures.

Under the Minster of Transport's operating restrictions for the north runway, the runway can be used for departures when the airport approaches capacity limits. Using the north and south runways for simultaneous departures reduces significant delays for passengers. For a copy of the 2004 Aeronautical Noise Management Report: Visit our website at www.yvr.ca > Airport Authority > Environment > Environmental Reports & Plans

Call the Noise Information Line at 604.207.7097 E-mail: environment@yvr.ca

You can also call the Noise Information Line or e-mail environment@yvr.ca to contact the Airport Authority's noise management professionals, obtain more information on noise management at YVR, or to set up a tour with noise management staff.

Traffic projections for summer 2005 indicate that runway demand during peak periods of the day will exceed the airport's capacity if only the south runway is used for departures. To reduce aircraft delays, the north and south runways will be used for simultaneous departures when required between 7 a.m. and 7 p.m.

The Airport Authority will communicate this operational change to stakeholders in advance through meetings with City Councils, our Annual Public Meeting and advertisements in community papers.

AIR QUALITY

The Airport Authority's air quality program addresses airport and airport-related activities that could impact local, regional and global air quality through the production of pollutants, including greenhouse gases or ozone-depleting substances. The program's objective is to reduce emissions by raising awareness of clean air issues, promoting alternative forms of transportation to and from Sea Island, and working with business partners to increase the use of alternative fuel and low-emission vehicles.

AMBIENT AIR QUALITY

The Airport Authority is a voluntary partner in the Greater Vancouver Regional District's (GVRD) ambient air quality management program. A GVRD continuous monitoring station is located at YVR east of the south runway, near the community of Burkeville. Data collected from this station is reported on the GVRD's website (www.gvrd.bc.ca/aqi).

Emission inventories indicate how total emissions are changing in the Lower Fraser Valley and are published every five years by the GVRD. According to the GVRD, aircraft emissions currently account for about one per cent of all greenhouse gas emissions and less than one per cent of all smog-forming pollutants in the Lower Fraser Valley airshed. The largest source of harmful air emissions across the Lower Mainland is exhaust from vehicle traffic; reducing vehicle emissions on and off Sea Island is a key goal of the Airport Authority's air quality program.

REDUCING SINGLE-OCCUPANCY VEHICLE USE

A large contributor to the traffic along the Richmond-Airport-Vancouver corridor is airport employees and passengers. In 2004, the Airport Authority conducted a commuter survey on Sea Island to gauge YVR employees' transportation practices and preferences, and to determine opportunities for reducing the use of single-occupancy vehicles. The survey was distributed to employees of the Airport Authority and those working at businesses located on Sea Island. Of the 2,000 surveys distributed, the Airport Authority received 620 responses.

Of the respondents, many said they would consider alternative transportation: 42 per cent suggested they would consider public transit, 26 per cent would consider carpooling, and 17 per cent indicated they would try cycling.





Commuter Profile – Airport Authority 2004 Commuter Survey Respondents VANCOUVER INTERNATIONAL AIRPORT AUTHORITY 2004 SUSTAINABILITY REPORT

Single-occupancy vehicle: 80 per cent Public transit: 9 per cent Carpool: 6 per cent Bicycle: 2 per cent Other*: 3 per cent

*Motorcycle, taxi, walking, unspecified

Airport Authority Commuter Challenge Participation (2001-2004) VANCOUVER INTERNATIONAL AIRPORT AUTHORITY 2004 SUSTAINABILITY REPORT

The Airport Authority will evaluate opportunities presented in the 2004 commuter survey results. Among the Airport Authority's focus areas for 2005: ongoing improvements to cycling facilities and educational campaigns; an active partnership with the Jack Bell Foundation to coordinate increased carpooling; and promoting other modes of transportation.

Each year, the Airport Authority supports the Government of Canada's Commuter Challenge as part of national Environment Week. The event encourages people to use sustainable and active modes of transportation during their daily commute and track their transportation on Clean Air Day.

The 2004 Commuter Challenge saw almost 60 per cent of Airport Authority employees participating, for a total of 2,031 kilometres saved in travel. This equates to a reduction in carbon dioxide equivalents of 316 kilograms.

In addition to the Commuter Challenge and other National Environment Week events, the Airport Authority is an active participant in initiatives aimed at raising awareness of air pollution issues among employees. These include the Idle Free Campaign to reduce vehicle emissions, led by Better Environmentally Sound Transportation (BEST), and the Government of Canada's One-Tonne Challenge.

The Airport Authority is a funding partner for the Richmond-Airport-Vancouver Rapid Transit Line (RAV Line), and has committed up to \$300-million to construct the airport portion of the line. In December 2004, the project was approved. Construction of the line is expected to start in August 2005, following the environmental review process. Once complete, the RAV Line will provide sustainable transportation capacity along one of the region's busiest north-south corridors. On Sea Island, the line will reduce vehicle congestion and idling on the Arthur Laing and No. 2 Road bridges, and provide an attractive transit option for passengers and airport employees.



REDUCING VEHICLE EMISSIONS

Another way the Airport Authority works to improve air quality is through the promotion of alternative fuels such as natural gas, biodiesel, and hydrogen.

In 2004, the Hydrogen Highway[™] was announced. The Hydrogen Highway is a coordinated, large-scale hydrogen and fuel cell technologies demonstration and deployment program designed to accelerate the commercialization of alternative fuels and related technologies. Vancouver International Airport will be a node on the highway and a key site for hydrogen applications and refueling demonstrations. Our future plans include the creation of an alternative fuels station and hydrogen technology demonstration projects at YVR.

The fleet renewal plan looks at vehicles that would reduce air emissions and improve the fuel economy of the Airport Authority's fleet. Representatives from the Airport Authority's Environment and Maintenance departments attend conferences and working groups as part of the provincial government's B.C. Fleet Challenge. Representatives from the Airport Authority also sit on two working groups that support the Vancouver Organizing Committee for the 2010 Olympics (VANOC). These groups, the Sustainable Transportation Consortium and the Sustainable Energy Committee, are working to make the Olympic Winter Games in 2010 the most sustainable to date. The Airport Authority promotes the reduction of air emissions from vehicles at YVR through an alternative fuelled licensing program for taxis. In 2004, the Airport Authority continued to offer licensing fee cost incentives to taxi operators using hybrid gasoline-electric vehicles or vehicles with engines designed to run on natural gas. In 2004, nine taxis were licensed under this program. At YVR, taxis must be no older than six years and limousines no older than seven years, which also improves the efficiency of the fleet.

POLLUTANT RELEASES

The Airport Authority tracks various pollutants as part of the National Pollutant Release Inventory (NPRI), a nation-wide, publicly accessible inventory of information on annual releases to air, water, land and disposal or recycling from all sectors—industrial, government, commercial and others.

In 2003, 0.3 tonnes of PM2.5 (particulate matter sized 2.5 microns and smaller) were emitted to air from YVR's boilers and emergency generators, and 155 tonnes of asbestos were sent to disposal from construction waste. Due to timing of NPRI reporting, 2004 numbers will not be available until June 2005.

CONTAMINATED SITES

The contaminated sites program enables the Airport Authority and its tenants, in conjunction with Transport Canada, to manage contaminated sites at YVR to reduce any potential risks and long-term liabilities.

Transport Canada is responsible for contaminated sites on Sea Island that existed prior to the 1992 transfer. The challenge for this program is that Transport Canada must manage all its sites across Canada on a priority basis. Sometimes, a low-priority contaminated site becomes an issue because of land development. The Airport Authority works with Transport Canada to ensure all contaminated sites are managed in accordance with the Treasury Board's Federal Contaminated Sites Management Policy.

ENVIRONMENTAL IMPACT ASSESSMENT

All new construction activities at the airport are subject to an environmental review under the Airport Authority's Environmental Impact Assessment Program. The objective of the program is to reduce potential environmental impacts of development projects at YVR.

The review process looks at environmental aspects of design, construction and operation of all new projects, including any potential archeological, cultural or historical impacts. Guidelines and mitigation efforts are developed for projects to ensure compliance with regulatory and airport standards. Project sites are visited regularly by environmental monitoring staff to ensure mitigation efforts are implemented as planned and all standards are met.

In 2004, 170, or 100 per cent of airport construction projects underwent an environmental review.

2005 Target: 100 per cent of airport construction projects reviewed by the Environment Department.

HAZARDOUS MATERIALS

The Airport Authority and tenants located on Sea Island—including airlines, fuellers, car rental companies, couriers, maintenance shops and construction companies—use hazardous chemical products in their operations. Hazardous materials are also produced as waste products as a result of some airport-related operations. Chemical products and wastes considered hazardous materials may include:

- Flammable liquids (aviation fuel, jet fuel, solvent, paint, hydraulic fluids)
- > Compressed gases (propane, natural gas, nitrogen, oxygen)
- > Corrosives (battery acid, sodium hypochlorite)
- > Poisonous or infectious chemicals (medical samples, syringes)
- > Oxidizers (fertilizer)
- > Others (PCBs and asbestos)



Fuel Spills Exceeding 100 Litres (2001-2004) vancouver international airport authority 2004 sustainability report

With the number of hazardous chemicals used by the Airport Authority and Sea Island tenants each year—including approximately 1.5 billion litres of aviation fuel—safe handling protocols and procedures are imperative.

The goal of the hazardous materials program is to reduce risk by exceeding the regulatory requirements for the life cycle management and safe handling of hazardous materials, while preventing and preparing for possible spills. The Airport Authority does this through specific training and workplace inspections to ensure compliance with all regulations, and through our recycling and disposal system for hazardous waste.

The Airport Authority strives to lead by example, and has put a number of practices and procedures in place at its own facilities, among them:

- > Regular inspections of all waste storage areas
- > Training programs for the management of hazardous waste
- Safe handling procedures for waste oil, PCBs, batteries, and ozone-depleting substances
- > Procedures for fuel handling and maintenance of fuel systems

Approximately 10,000 litres of waste oil, generated during the maintenance of Airport Authority vehicles, were recycled in 2004.

When spills occur, they are reported to Airport Operations immediately. Those with the potential to enter ditches or the Fraser River are also reported to Environment Canada and Transport Canada.

YVR recorded four fuel spills of more than 100 litres in 2004, one less than in 2003.

2005 Target: Zero fuel spills

TABLETOP EXERCISES

A portion of the Airport Authority's Emergency Management Plan is devoted to hazardous materials, and is regularly put into practice through tabletop exercises with stakeholders such as airline fuel handlers, Environment Canada, Richmond Fire Rescue and Airport Authority Emergency Response Specialists. These educational exercises provide participants with valuable opportunities to exercise their skills, foster cooperation between agencies, and highlight areas for continued improvement to the Emergency Management Plan.



NATURAL HABITAT

YVR is located on Sea Island, an ecologically diverse area in the Fraser River Estuary. The estuary is an important staging area for birds on the Pacific Flyway; it supports some 500,000 birds, and more than one million birds use the delta during peak migration periods.

Sea Island and its immediate surroundings include five designated protected habitat areas (see photo above): Sea Island Conservation Area (SICA), McDonald Beach Park, Sturgeon Banks Wildlife Management Area, Iona Beach Regional Park and Swishwash Island. The Airport Authority works closely with owners of adjacent lands, regulatory agencies, environmental groups and other stakeholders to protect environmentally sensitive features on and adjacent to YVR from the impact of airport operations. The key challenge is balancing competing interests, such as the safety of airport operations and the need for wildlife control and de-icing, with environmental protection.





Birds Moved from YVR (2002-2004)* VANCOUVER INTERNATIONAL AIRPORT AUTHORITY

* Wildlife Officers keep records of birds moved from active runway and taxiway areas. This number is a total of birds moved through control activities for the year. The same birds could be controlled and counted multiple times. 02 03 04

Birds Killed by Intervention (2002-2004) VANCOUVER INTERNATIONAL AIRPORT AUTHORIT 2004 SUSTAINABILITY REPORT

1,195

WILDLIFE CONTROL

The Airport Authority is committed to preserving our natural environment and protecting the safety of the travelling public. To reduce the risks associated with birds at the airport, we undertake a comprehensive wildlife management program. Our program is recognized as being among the best in the world, and has four components: habitat management, movement of birds away from aircraft operating areas through harassment techniques, killing of birds where a safety risk is perceived, and wildlife monitoring.

Habitat management is the most important component of the wildlife program. Where possible, habitats on airport lands are modified to reduce their attractiveness to hazardous wildlife species. We achieve this by carefully managing grass and weeds, water drainage, perching spots, garbage accumulation and building design.

No less than two wildlife officers patrol YVR's 1,300-hectare grounds at all times. In 2004, approximately 1.5 million birds were moved away from aircraft operating areas using a variety of harassment techniques, including pyrotechnics, sirens, lights, propane cannons, and a specially trained border collie.

While habitat management and harassment techniques are the primary tools used, killing occurs when the officer perceives a safety risk. This may consist of an immediate risk to an approaching aircraft, or a potential or chronic risk that has increased to unacceptable levels.

In 2004, 1,195 birds were killed by control officers, a 97 per cent increase over 2003. In addition, a total of 199 birds were killed in 116 bird-strikes with aircraft, a 53 per cent increase over 2003, but about average for the past five years.

Factors that contribute to bird-strikes include aircraft operations, environmental conditions and natural variabilities in bird populations. In 2004, ducks, starlings, crows, dunlins and gulls accounted for more than 95 per cent of the birds killed at YVR.

To help us in our efforts to reduce the environmental and safety risks posed by birds at the airport, the Airport Authority has a comprehensive wildlife monitoring program. Biologists track bird populations on and adjacent to the airport, study their behaviour, and keep detailed records of their activity. This information allows us to learn from and improve our wildlife management efforts.





Total Bird-Strikes (2002-2004) VANCOUVER INTERNATIONAL AIRPORT AUTHORITY 2004 SUSTAINABILITY REPORT

Bird-Strike Rate (2002-2004)* VANCOUVER INTERNATIONAL AIRPORT AUTHORITY 2004 SUSTAINABILITY REPORT *Strikes per 10,000 aircraft take-offs and landings

Annual summary reports of the Airport Authority's wildlife control activities are prepared and submitted to Transport Canada, Environment Canada and the B.C. Ministry of Water, Land and Air Protection.

For information on the wildlife management program: Visit our website at www.yvr.ca > Airport Authority > Facts & Stats > Wildlife Management

In 2004, the Airport Authority signed an agreement with Ducks Unlimited Canada, Environment Canada and Transport Canada to preserve habitat and sustain the population of Lesser Snow Geese, while continuing to control Snow Geese on Sea Island for reasons of aviation safety.

The agreement will see Ducks Unlimited receive annual income for a minimum of thirty years from a one-time cash grant from the Airport Authority and the Government of Canada. The income will be used by Ducks Unlimited to provide habitat that will sustain the Fraser Skagit population of Lesser Snow Geese that migrate and overwinter along the Pacific Coast.

Ducks Unlimited, through the grant, will fund winter cover crops on adjacent lands to Sea Island. The crops will cover a total area of 200 hectares and will benefit both landowner and waterfowl by providing food, habitat and refuge for waterfowl, and improving farm productivity by increasing soil fertility and nutrient management.

The agreement benefits the Airport Authority and the travelling public by ensuring migratory birds such as the Lesser Snow Goose have access to adequate food and habitat away from aircraft operating areas, where risks associated with birds striking aircraft are significant.

RESOURCE EFFICIENCY

The resource efficiency program looks at ways to reduce overall energy consumption at the airport. Vancouver International Airport Authority has been a pioneer in this area; in 2002, the Airport Authority became BC Hydro's first Power Smart Certified business for outstanding energy efficiency leadership. Although the terminal buildings at YVR increased in area by 44 per cent between 1997 and 2003, total energy consumption at all Airport Authority-controlled facilities increased by only six per cent over the same period.

The Canadian Solar Industries Association gave the Airport Authority the "Solar Thermal Project of the Year" Award in 2004 for the solar-powered hot water heating system in the domestic terminal.

ENERGY REDUCTION TEAM

Reducing energy consumption requires a coordinated effort by all Airport Authority departments and employees. The Airport Authority's Energy Reduction Team is a cross-departmental committee whose mandate is to identify and implement energy-reduction initiatives, whether through energy-efficient work activities, purchasing choices or design decisions for future facilities. The Energy Reduction Team also works to educate staff about the environmental, performance and financial benefits of energy efficiency and conservation, both at work and at home. The team conducts surprise energy audits and provides employees with specific tips for reducing energy consumption at each workstation.

In 2004, the Energy Reduction Team made upgrades to heating, ventilation and air conditioning systems in the domestic terminal. As a result of these upgrades, the Airport Authority expects to save more than 790,000 kilowatt hours (kWh) of energy annually. Recognizing these and other efforts, BC Hydro gave the Airport Authority and the Energy Reduction Team a 2004 Power Smart Partner Excellence Award.

At year-end 2004, energy efficiency at all Airport Authoritycontrolled facilities had been improved by 5.2 per cent relative to 2001 levels. Reducing energy in 2004 was made more challenging by a hotter-than-average summer, which necessitated more cooling of the terminals, and ongoing construction projects.

2007 Target: Improve electrical energy efficiency by 15 per cent relative to 2001 levels.



Energy Efficiency (2001-2004) VANCOUVER INTERNATIONAL AIRPORT AUTHORITY 2004 SUSTAINABILITY REPORT

Electricity consumed
Electrical energy efficiency

Energy efficiency does not end with the Energy Reduction Team. Energy efficiency education and discussion is extended throughout the organization at orientation sessions for all employees. Further educational opportunities are provided through a variety of programs:

- Enrollment of key personnel in BC Hydro and Canadian Institute of Energy training courses and seminars
- > Technical, hands-on training on specialized equipment and procedures associated with energy efficiency
- > Seminars on eco-efficiency in urban development, including Green Buildings, energy-efficient retail design, sustainability, and alternative and renewable energy sources

Information on energy efficiency is also communicated to staff through the Airport Authority's internal newsletter, intranet site, e-mails, staff meetings and other communications materials.

Over the 2004 Christmas holiday season, Airport Authority employees were encouraged to trade their traditional, inefficient holiday light strands for new, high-efficiency Light Emitting Diode (LED) strands. The program provided a number of benefits. First, it meant that dozens of high-energy light strands were no longer being used to decorate homes and office space, reducing energy consumption. Second, it educated employees about the benefits of LED and other energy-efficient lighting solutions.

BUILDING GREENER

The Airport Authority maintains efficiency and avoids undue expansion through common-use terminal equipment. Common-use equipment, such as check-in counters and self-service kiosks, can be used by any number of airlines, allowing for redistribution based on fluctuations in need. This results in maximum utilization of existing resources, and, over the years, has allowed the Airport Authority to serve more passengers with less infrastructure, avoiding terminal expansions that might otherwise have been necessary.

When new buildings are necessary, the Airport Authority strives to have them achieve a standard of 50 per cent better energy efficiency than the Government of Canada's Model National Energy Code for Buildings. The design and construction process utilizes energy modeling tools, such as BC Hydro's Design Assistance Workshop, and a Green Building consultant to ensure new buildings are constructed to operate at optimal energy efficiency.



Airport Terminal Waste Diversion Rates (2000-2004) (Percentage of waste recycled, composted or reused) VANCOUVER INTERNATIONAL AIRPORT AUTHORITY 2004 SUSTAINABILITY PERDET

Miscellaneous Yard Waste Grease Compostables Glass/Metal/Plastic Paper/Cardboard

2004 Airport Terminal Recycling Composition (Percentage of total recycled, composted or reused) VANCOUVER INTERNATIONAL AIRPORT AUTHORITY 2004 SUSTAINABILITY REPORT Paper/Cardboard: 58 per cent

Glass/Metal/Plastic: 12 per cent Compostables: 12 per cent Grease: 6 per cent Yard Waste: 3 per cent Miscellaneous*: 9 per cent

*Scrap steel, construction waste, batteries and lights, pallets.

RECYCLING

The past year saw a number of new initiatives to enhance the Airport Authority's recycling program and increase recycling by Airport Authority employees, airport tenants and passengers.

In 2004, the Airport Authority conducted a waste audit and found that 25 per cent of materials in waste containers could have been recycled. The audit also found a 15 per cent rate of contamination in recycling bins. The results pointed to a need for increased awareness and education, and the Airport Authority addressed this in a number of ways:

- > All Airport Authority departments received "Recycling 101"—an interactive presentation on the recycling program at YVR, including a hands-on demonstration of recyclable and non-recyclable items, and ways to reduce waste
- > The Environment Department met with the recycling contractor and airport tenants to discuss ways to reduce contamination in recycling bins

- > A committee was formed with representatives from several Airport Authority departments—including Environment, Operations, Retail Passenger Services and Corporate Services—to update and improve the Waste and Recycling Operations Plan and User Guide, which will be fully implemented by May 2005
- $\,>\,$ The number, design and location of recycling bins was reviewed
- > A new waste and recycling hauler was selected

Also in 2004, the Airport Authority reduced paper waste by switching to an electronic paycheque system, and increased the use of recycled paper. Approximately 90 per cent of the paper used by the Airport Authority now has recycled content.

	2003	Airport Terminals 2004	2005 Target
Total Waste (kg)	2,322,091	2,767,683	2,985,000
To Landfill (kg)	1,638,950	1,847,698	1,940,250
Recycled (kg)	683,141	919,985	1,044,750
Recycled (%)	29	33	35
		Satellite Locations	
	2003	2004	2005 Target
		240.010	240.000
Total Waste (kg)	629,556	248,019	260,000
To Landfill (kg)	571,596	192,987	196,300
Recycled (kg)	57,960	55,032	63,700
Recycled (%)	9	22	25
		Construction Projects	
	2003	2004	2005 Target
Tatal Maata (ka)	4 504 200	45 700 / / 1	
Total Waste (kg)	4,594,289	45,729,661	۰
To Landfill (kg)	817,210	302,499	٠
Recycled (kg)	3,777,088	45,427,162	•
Recycled (%)	82	99	85

	2003	Total 2004	2005 Target
Total Waste (kg)	7,369,886	48,745,363	
To Landfill (kg)	2,887,007	2,343,184	
Recycled (kg)	4,482,829	46,402,179	
Recycled (%)	61	95	>50

· Too variable to predict

AIRPORT TERMINAL WASTE

In 2004, 33 per cent (919,985 kilograms) of the waste generated from the airport terminals was diverted from landfill through recycling, composting or reuse. This represents a four per cent increase over 2003 and continues the trend of gradual improvement since the implementation of the Airport Authority's recycling program.

2005 Target: 35 per cent of the waste generated from the airport terminals diverted from landfill.

For the second consecutive year, the Airport Authority tracked waste from satellite locations (Airport Authority buildings or operations not associated with terminal facilities) and construction projects to more accurately record the results of the Airport Authority's recycling program.

In 2004, the Airport Authority diverted 22 per cent of waste from satellite locations, 33 per cent from airport terminals, and 99 per cent from construction projects. Collectively, the Airport Authority recycled or diverted more than 95 per cent of waste from landfills, again surpassing the GVRD's waste diversion target of 50 per cent.

In 2004, the Airport Authority completed renovations and upgrades to A-Pier, on the south end of the domestic terminal building. The \$24-million project, which began in 2002, involved the removal of more than 100,000 kilograms of asbestos, and infilling 2,600 square metres of existing structure. Of the approximately 45 million kilograms of waste produced from this and other major construction projects—south airfield upgrades, new engine run-up pad, south terminal upgrade, helicopter apron upgrade—99 per cent was reused or recycled. This means 45 million kilograms of demolition waste were diverted from landfill as a result of the Airport Authority's efforts.



Water Quality Results—Glycol (2001-2004) (Results exceeding 100 mg/L) VANCOUVER INTERNATIONAL AIRPORT AUTHORITY 2004 \$\status report

WATER QUALITY

The Airport Authority is committed to protecting surface and ground water, and ensuring sensitive aquatic habitats are not compromised. The key objective of our Water Quality Program is to minimize or prevent pollution that results from airport-related activities. We achieve this objective through a strict program of pollution prevention, emergency response preparedness and water guality monitoring.

Three key airport activities have the potential to impact stormwater runoff and local water quality: aircraft and runway de-icing, aircraft refuelling, and construction activities. The Airport Authority has developed strategic control measures and procedures in each of these key areas.

DE-ICING

De-icing of aircraft in winter is necessary for safety reasons. It is done using chemicals such as glycol, which can act as a pollutant in the environment. The Airport Authority closely monitors and regulates de-icing activities. In 2004, 170 water samples were collected from surface water quality monitoring stations located near the edge of Sea Island, and analyzed for ethylene glycol and propylene glycol—ingredients in aircraft de-icing fluids. Of the 170 samples, one exceeded the Canadian Glycol Guideline limit of 100 parts per million.

2005 Target: Zero exceedences

The decrease in exceedences since 2002 can be attributed to the construction of larger, more effective de-icing pads, which allow for better containment of glycol, reducing the likelihood of it entering the environment. An onsite glycol processing facility allows for more efficient glycol disposal and lower costs for airlines.

FUEL SPILL MANAGEMENT

The Airport Authority continues to advance its fuel spill management with the installation of oil-water separators in all new vehicle parking lots and aircraft parking areas. These oil-water separators are a first line of defence in the event of fuel spills. The second line of defence includes shut-off gates located in drainage ditches at the edge of the airport property; these allow ditch flow to be stopped if a spill or other emergency requires it.

For more on fuel spills, see Hazardous Materials, page 46.

CONSTRUCTION

Excavating soil and the placement of preload materials before a construction project can potentially increase soil erosion and release sediment into sensitive aquatic habitats. All new construction projects are reviewed by the Environment Department as part of the Environmental Impact Assessment process (see page 46). The Airport Authority requires strict erosion control measures on all projects that expose soil, and monitors construction projects on an ongoing basis.

To ensure that erosion-control measures are effective, the Airport Authority monitors total suspended solids and turbidity in runoff from construction sites, as well as at the seven pump discharges from Sea Island to the Fraser River.

More than 400 water samples were tested for turbidity and/or total suspended solids in 2004.

ENVIRONMENTAL PERFORMANCE INDICATORS SUMMARY TABLE

2004 ENVIRONMENTAL PERFORMANCE INDICATORS VANCOUVER INTERNATIONAL AIRPORT AUTHORITY 2004 SUSTAINABILITY REPORT

	Measure	2004 Target	2004 Result	2005 Target
Aeronautical Noise	Number of violations of published noise abatement procedures	Zero	5	Zero
	Status of planned initiatives from 2008 YVR Noise Management Plan	Complete 100 per cent of Year 1 initiatives	100 per cent	Complete 100 per cent of Year 2 initiatives
Air Quality	CO ₂ emissions from Airport Authority vehicle fleet		New measure, data not yet available	Reduce CO ₂ emissions 15 per cent by 2009 relative to 2004 levels
Environmental Impact Assessment	Percentage of construction projects reviewed by Environment Department	100 per cent	100 per cent	100 per cent
Hazardous Materials	Number of fuel spills exceeding 100 litres	Zero	4	Zero
Resource Efficiency	Airport Authority electricity consumption: kilowatts per square metre	Reduce electricity consumption 15 per cent by 2007 (230 Kw/m ²) relative to 2001 levels	260 Kw/m²	2005 target: 250 Kw/m ² Long-term target: reduce electricity consumption 15 per cent by 2007 (230 Kw/m ²) relative to 2001 levels
	Average fuel efficiency of Airport Authority fleet vehicles: litres per 100 kilometres		New measure, data not yet available	Increase average fuel efficiency 15 per cent by 2009 relative to 2004 levels.
Recycling	Total waste (Airport Authority-controlled facilities, satellite locations and construction projects) diverted from landfill	Greater than 50 per cent waste diversion	95 per cent	Greater than 50 per cent waste diversion
Water Quality	Water samples exceeding Canadian Glycol Guideline of 100 parts per million of glycol	Zero	1	Zero

SOCIAL

THE AIRPORT AUTHORITY IS COMMITTED TO ENGAGING STAKEHOLDERS AND PROVIDING OPEN, HONEST AND TIMELY COMMUNICATIONS; THIS INCLUDES OUR CUSTOMERS, OUR BUSINESS PARTNERS, THE COMMUNITIES WE SERVE AND OUR EMPLOYEES.

SOCIAL

VANCOUVER INTERNATIONAL AIRPORT AUTHORITY'S SUCCESS IN MAKING YVR ONE OF THE WORLD'S TOP-RATED AIRPORTS IS DRIVEN BY THE STRENGTHS OF OUR PEOPLE.

OUR PEOPLE

The Airport Authority is a dynamic and progressive organization committed to providing a quality work environment, and the tools and resources to support a flexible, strong and capable team.

Every Airport Authority employee plays an integral role in our daily operations. We strive to foster an environment where each person is offered opportunities to grow and develop, both personally and professionally.

The Airport Authority employs 339 people (as of year-end 2004), the majority of whom are members of the Public Service Alliance of Canada. The Airport Authority works with the union through the Union Management Committee (UMC), a joint committee comprised of the union executive and management representatives from the Airport Authority. The committee meets on a regular basis to exchange information and discuss issues that affect employees.

To create a workplace where employees are satisfied and fulfilled in their jobs, we support skills development, employee recognition and fitness and balance through a variety of programs and initiatives.

The average age of an Airport Authority employee is 41 years; the average length of service is eight years. Our extremely low turn-over rate reflects the Airport Authority's commitment to employee development and retention. Since 2001, the Airport Authority has maintained an annual turn-over rate of less than 3.5 per cent.

The Airport Authority's reputation as an employer of choice is reflected in the number of unsolicited résumés we receive—almost 1,800 in 2004 alone.

INVESTING IN OUR PEOPLE

The Airport Authority believes the best way to nurture a strong team is to invest in the development of its members. We strive to hire the right people for the right jobs and then keep them. Through employee development and cross-training, we maintain a highly skilled and efficient team capable of taking on multiple roles to respond effectively in any given situation.

A five-year performance review of the Airport Authority, conducted in 2003 by PricewaterhouseCoopers, found that our employee-to-passenger ratio was among the best in the world, with one employee for every 53,700 passengers. Since 1992, YVR's infrastructure has more than doubled and passenger traffic has increased by 50 per cent, yet our workforce has increased by only 27 per cent over the same period and our customer service ratings remain consistently high (see page 26). This speaks to the value of our team.





PEOPLE DEVELOPMENT

In 2004, each employee received 41 hours of training on average. This number includes training through on-site training courses offered by the Airport Authority, external training and skills development, and apprenticeship hours, and exceeds our 2004 target of 35 hours of training per employee for the year.

In 2003, the Airport Authority sponsored more than 30,000 hours of training to prepare a team of Emergency Response Specialists to reassume aircraft rescue firefighting services at YVR in 2004. As a result, training hours in 2003 averaged 60 per employee, an unusually high number.

In addition to training during normal work hours, in 2004, many Airport Authority employees participated in long-term education programs outside of work hours. The Airport Authority also helps children of employees continue their education at recognized post-secondary institutions with up to 20 scholarships awarded each year.

The Airport Authority encourages maintenance employees to develop their skills in a second trade. This enables employees to become multi-skilled and cross-functional, and makes for a flexible and responsive workforce. To date, 66 per cent of the Airport Authority's trades staff are dual-ticketed or in the process of becoming dual-ticketed.

Employee Training (2002-2004)

VANCOUVER INTERNATIONAL AIRPORT AUTHORITY 2004 SUSTAINABILITY REPORT

	2002	2003	2004	2005 Target
Number of programs/workshops attended by employees	160	341	218	
Total training hours (not including apprenticeship time)	11,848	17,745	13,450	
Average training hours per employee*				
(not including apprenticeship time)	39	55	41	35
Total apprenticeship hours	2,612	1,832	2,904	
Total training and apprenticeship hours	14,460	19,577	16,536	
Average training/apprenticeship hours per employee*	48	60	50	35

*Based on 325 full-time equivalent positions to account for part-time staff and yearly variances.

Employees at the Airport Authority are supported in their efforts to further their skills and attain their full potential. Some of the ways we facilitate employee training and education include:

- > Educational leave of absence
- > Salary deferral to ensure an income during educational leave
- > On-site department-specific training
- > Day course/conference attendance during normal work hours
- > Interest-free loans for computer purchases
- > Up to \$20,000 reimbursement on the successful completion of education programs outside of normal work hours

All Airport Authority management staff take part in a 360-Degree review process that allows their direct reports, peers, superiors and others to provide confidential feedback on individual managerial performance. As part of the process, each manager receives a comprehensive feedback report. External consultants with expertise in the process support managers with assistance in interpreting the results. The feedback provides a clear picture of strengths and areas for improvement for each manager. Each individual then puts together specific development plans.

In 2004, we were able to meet our target of having all management staff, including vice presidents, complete the 360-Degree process, which runs on a multi-year cycle.

LISTENING TO OUR PEOPLE

One of the best ways to ensure employees are satisfied and fulfilled in their jobs is to listen to what they have to say. The Airport Authority engages with employees through Climate Surveys and the CheckPoint performance and career development process.

CLIMATE SURVEYS

The Climate Survey is one tool used by the Airport Authority to identify areas for future improvement and gauge the effectiveness of previous initiatives.

Past surveys have been joint union-management initiatives sponsored by the Union President and the Vice President, Human Resources, and facilitated by Human Resources staff and a team of employees and managers. To safeguard confidentiality and encourage open conversations, an external consultant received the completed surveys and tabulated the results.

The first Climate Survey was conducted in 2000, and a follow-up survey was completed in 2002, providing a combination of statistical data and anecdotal information. The 2002 survey, containing 89 questions, was completed by 90 per cent of employees over a one-month period.

Information collected through the Climate Survey has been used to establish new committees and implement new programs, as well as revitalize programs that have been in place for years. In 2002, employees were presented with the compiled results of the Climate Survey, and the executive team shared the Airport Authority's plans to address issues identified as being in the top 10. The 2002 Climate Survey found that the vast majority of employees believed that the Airport Authority was committed to maintaining a safe and healthy work environment. The majority of respondents also agreed that they enjoyed working for the Airport Authority, and were proud to be Airport Authority employees.

The Climate Survey of 2002 noted leadership as an area for improvement. Since that time, the Airport Authority has focused on programs and initiatives to directly impact the quality of our leadership. Training such as "The Leader's Window" is required for all management staff. The 360-Degree review process was also introduced.

The information collected from the Climate Survey is part of a process, not an end result. The Airport Authority reports back to the employees regularly on the results and initiatives that have been implemented based on their recommendations. This is done through regular features in our employee newsletter, Connections.

The union-management Climate Survey committee recommended the next Climate Survey be conducted in 2005.



CHECKPOINT

CheckPoint is the Airport Authority's performance review tool, and was originally developed in-house through a joint unionmanagement committee. It is intended to review performance, acknowledge accomplishments, provide coaching for development, and assist with building a career plan through job assignments, training and education.

The CheckPoint form is a guideline for an annual conversation between employees and managers to provide feedback and ensure

employee efforts align with organizational plans. The CheckPoint process also provides a platform for employees to seek feedback from their managers in a quiet environment, free from interruptions.

In 2004, we were able to meet our target of conducting CheckPoint sessions with 100 per cent of our employees at least once throughout the year.

2005 Target: 100 per cent of employees participate in at least one CheckPoint session with their manager.

Attendance Rate (2002-2004) VANCOUVER INTERNATIONAL AIRPORT AUTHORITY 2004 SUSTAINABILITY REPORT

	2002	2003	2004	2005 Target
Attendance (annual average percentage				
of workforce present)	97.5 per cent	97 per cent	97.5 per cent	>96 per cent

RECOGNIZING AND REWARDING OUR PEOPLE

The Airport Authority believes that what gets rewarded gets repeated. Formal recognition of employee efforts is a key component of our workplace environment. Rewards for our employees range from \$40 scratch 'n' win cards redeemable at retailers throughout the terminals, to awards of up to \$1,000 through the Suggestions That Achieve Results (STAR) program, which recognizes employees for recommending improvements that result in savings, revenue generation or improved customer service.

The Airport Authority provides employees with recognition for reaching service milestones, including a special luncheon and a wide range of awards.

EMPLOYEE AND FAMILY ASSISTANCE PROGRAM

The Airport Authority provides confidential, professional assessment, guidance and counselling for a broad range of personal and family issues through our Employee and Family Assistance Program. The program strives to provide employees with options to help them manage their personal health and happiness. Employees and their families can receive short-term counselling from a professional counsellor.

In 2004, the Airport Authority was recognized with a Healthy Workplace Award from the B.C. Psychological Association. The award is given to organizations that make a commitment to programs, policies and initiatives that enhance the quality of the work environment for their employees. The Airport Authority was recognized for its commitment to the elements of a healthy workplace: employee involvement; family support; employee growth and development; health and safety.

EXTENDING OPPORTUNITIES

WORKFORCE DIVERSITY

The Airport Authority wants a workforce that reflects the vibrancy and diversity of the communities we serve. We support the Employment Equity Act and take measures to ensure fair employment practices across our organization.

The Employment Equity Act was passed in 1986 and specifically covers four groups: women, aboriginal peoples, persons with disabilities, and members of visible minorities.

In June of each year, the Airport Authority reports its workforce demographics to the federal government, showing how each of the designated groups is represented. These demographics are taken from a workforce survey questionnaire, supplied to each employee to complete voluntarily in confidence.

The Airport Authority's Employment Equity Committee is comprised of nine management and staff members from various departments, and works closely with the Human Resources team. The committee meets to discuss employment equity, as well as initiatives to raise awareness of diversity issues.

Initiatives the Airport Authority has undertaken to address the issue of workplace diversity include:

> A partnership with Connectra Society, an organization dedicated to helping place people with disabilities and reducing the barriers that may limit them in accessing work

- Distribution of all Airport Authority employment postings to a variety of outreach organizations in our community, such as the Asia Pacific Co-op, the B.C. Paraplegic Foundation, the International Association of Machinists Centre for Administering Rehabilitation and Employment Services (IAM Cares), MOSAIC, the Musqueam Indian Band, the Neil Squire Foundation, the B.C. Centre for Ability, the United Chinese Community Enrichment Services Society (S.U.C.C.E.S.S.), United Native Nations, Western Institute of the Deaf, and WorkAble Solutions
- Partnerships with the Aboriginal Inclusion Network and the Greater Vancouver Business Leadership Network (GVBLN). The Aboriginal Inclusion Network is a national strategy designed around a suite of web-based tools that extend the reach of employers into the untapped Aboriginal talent pool. The GVBLN provides job opportunities for people with disabilities

The Airport Authority's commitment to employment equity and diversity extends beyond our own hiring practices. The Vice President, Human Resources sits on the Minister's Council on Employment for Persons with Disabilities. This provincial council was established to advise the Minister of Human Resources on solutions and strategies for increasing the employment, employability and independence of persons with disabilities, particularly through partnerships with business and industry throughout B.C.




A RESPECTFUL WORKPLACE

The Airport Authority is committed to providing a respectful workplace where all employees are treated with dignity. As an employer, the Airport Authority falls under federal jurisdiction and we acknowledge and affirm our obligations under the Canadian Human Rights Act, which prohibits discrimination in respect of employment by reason of race, national or ethnic origin, colour, religion, age, sex, martial status, family status, disability, criminal conviction for which a pardon has been granted, or sexual orientation, in the absence of a bona fide occupational requirement as provided for by the Canadian Human Rights Act. The Airport Authority also recognizes the right of every employee to work in an environment free from sexual harassment and has put in place specific guidelines to deal with sexual harassment.

The Airport Authority strives to raise awareness and encourage understanding of discrimination and sexual harassment issues through ongoing Respect in the Workplace training for all employees to attend. The course is offered on-site by an independent consultant and was completed by 79 employees in 2004.

HEALTH AND SAFETY

Workplace safety is a top priority for the Airport Authority. We continually work to promote an organization-wide safety culture. We achieve this goal through training, analysis and innovation, and by empowering employees to reduce the threat and occurrence of injuries and health problems in their daily work.

HEALTH

The Airport Authority constantly looks for ways to enhance our health and safety practices and to uphold the highest standards for employee health. The Airport Authority's focus on enhancing safety and health practices has led to a steady decline in the number of days lost due to workplace injuries over the past six years.

We achieve these results through our dedication to initiatives such as:

- > An employee-driven wellness program
- > Annual Airport Authority-sponsored vaccinations
- > Regular hearing tests and hearing protection for maintenance and airside employees
- A rigorous asbestos monitoring program, which ensures our buildings are asbestos-safe

- > Noise and indoor air quality tests for Airport Authority staff and tenant workplaces
- > Custom-fit self-contained breathing apparatus where required
- Strategies to address public health concerns such as the West Nile, Norwalk and SARS viruses

FITNESS AND BALANCE WELLNESS PROGRAM

The Airport Authority supports employees in achieving fitness and balance in their work and personal lives. The Fitness and Balance Wellness Program is an incentive-based initiative that promotes physical fitness, nutrition and wellness through committee-sponsored fitness events, activities and health education. A Wellness Committee consisting of employee and management representatives with a keen interest in health issues oversees this program.

Now in its fourth year, the program has sponsored group hikes, walking and running clinics, as well as a wellness fair and trade show. "Lunch and Learn" sessions are offered, with topics ranging from nutrition and stretching to yoga, Pilates and stress management.









Lost-Time Injuries (1999-2004) vancouver international airport authority 2004 Sustainability report

SAFETY

The Airport Authority adheres to best practices in safety management, training and innovation with comprehensive initiatives that extend well beyond our employees to tenants, construction contractors and major service providers, as well as the travelling public. These initiatives include:

- Focusing on accident prevention by including employees in decisions that affect their health and safety
- Safety and environmental compliance audits, of which two were conducted in 2004, as well as numerous safety inspections
- > Submission of annual safety plans by each department
- > Ongoing fall protection and confined space entry training
- > A computer-based safety training system
- Firefighting and emergency response safety training for Emergency Response Specialists and Airfield Operations employees
- Training courses on dealing with trauma in the workplace, forklift operation, hoisting and rigging, first aid, risk assessments, asbestos and construction orientation, student safety orientation, traffic safety training, office safety, manual materials handling and back safety

- > Work Practice Code training for Airfield Operations Specialists and Trades Maintenance employees
- > Ergonomic awareness for all staff
- > Promoting awareness of shift-work issues
- > A stringent safety pre-qualification process and safety orientation for all construction contractors for the Airport Authority

Employees are provided with accurate and readily accessible health and safety resource information through the Airport Authority intranet.

In 2004, Airport Authority managers received training on supervisory safety responsibilities under Bill C-45, an Act to amend the Criminal Code. The Act was introduced in March and criminalizes health and safety violations perpetrated by supervisory staff. Fifty-four Airport Authority management staff attended the Supervisory Safety Accountability training.



Frequency of Lost-Time Accidents* (2001-2004) VANCOUVER INTERNATIONAL AIRPORT AUTHORITY 2004 SUSTAINABILITY REPORT * Frequency rate (number of time-loss injuries x 200,000) / person-hours worked





Severity of Lost-Time Accidents* (2001-2004) VANCOUVER INTERNATIONAL AIRPORT AUTHORITY 2004 SUSTAINABILITY REPORT *Severity rate = (days lost x 200,000) / person-hours worked

JOINT OCCUPATIONAL SAFETY AND HEALTH COMMITTEE

The Joint Occupational Safety and Health Committee (JOSH) is a committee of employee and employer representatives cooperating to identify and resolve safety and health issues at the airport. JOSH is a recommending body working to resolve issues through consensus. While it is management's responsibility to ensure committee recommendations are effectively implemented, all employees of the Airport Authority have a responsibility to correct unsafe conditions and follow safe work procedures.

In 2004, the Airport Authority introduced the President's Award for Safety Excellence. The award was championed by the Joint Occupational Safety and Health Committee, and endorsed by the executive committee. The award recognizes teams who exemplify the Airport Authority's commitment to safety and achieve extraordinary results in safety management. Recipients of the award enjoy a recognition dinner with the President and members of the executive team, where they receive a commemoration of their accomplishment.

LOST-TIME ACCIDENTS

In 2004, the Airport Authority recorded its lowest incidence of days lost due to injury (see page 74 and above).

2005 Targets: Zero lost-time injuries Zero days lost due to injury Frequency of lost-time accidents = zero Severity of lost-time accidents = zero

THE ACCESSIBLE AIRPORT

The Airport Authority is a world leader in creating accessible air terminal facilities. Our commitment to accessibility recognizes the importance of meaningful access regardless of age or ability as a fundamental aspect of good customer service. It is a reflection of the changing demographics of the travelling public—80 per cent of the travelling public is over the age of 55—and a response to Vancouver's growing status as a destination for people with disabilities, and older adults.

In addition to a facilities design policy that utilizes the highest applicable building code requirements with respect to access for people with disabilities, the Airport Authority has an independent access consultant review all new construction and retail projects.

Throughout the terminals, low-pile carpets, high-contrast pathways, check-in service and writing counters with toe clearance, and specially designed unisex washrooms make it easier for passengers in wheelchairs to navigate.

In 2004, the Airport Authority was recognized with an inaugural Rick Hansen Accessibility Award from the Rick Hansen Man in Motion Foundation. The award recognizes leadership, progress and excellence in creating accessibility in the community. Visual pagers, amplified volume-controlled handsets at all airline check-in and service counters and public TTY/TTD (Telecommunications Device for the Deaf) machines assist passengers who are deaf or hard of hearing. Closed captioning decoders are included on all entertainment televisions in the facility and, in case of emergencies, the Airport Authority uses visual fire alarm strobes in public areas and washroom facilities.

Passengers who are blind or visually impaired can use tactile maps of terminal areas, available at our customer service counters. The Airport Authority also makes use of distinct and consistent floor treatments to identify locations within the terminals.

YVR is a gateway to the world, and a meeting place for international passengers, not all of whom speak the same language. Our customer service counters feature one-touch access translation phones and dual handsets for three-way calls to access 125 different languages. Our YVR volunteers, the Green Coats, provide directions and information, and among them speak 26 languages.

Of course, accessibility is as much about awareness and understanding as it is about a building's design. All employees joining the Airport Authority receive disability awareness training as part of their new employee orientation.



CONNECTING WITH OUR COMMUNITIES

The Airport Authority is committed to engaging stakeholders and providing open, honest and timely communications; this includes our customers, our business partners, the communities we serve and our employees.

INFORMING

Being a good neighbour means keeping business partners and surrounding communities informed about airport operations and activities that affect them. We do this in a number of ways, including:

- > Annual Public Meeting in May
- > Annual Report
- Sustainability Report (formerly Community and Environment Report)
- > Annual Report overview and highlights newspaper insert
- > YVR Air Mail electronic newsletter
- > Annual presentations to:
 - Richmond, Vancouver, Burnaby, New Westminster, Delta and Surrey City Councils
 - > Provincial Deputy Ministers
 - Business and community groups, including the organizations that nominate Airport Authority Directors
- > A Speakers' Bureau program, through which members of our management team speak at community functions
- > Airport tours
- > Advertisements and public notices regarding operational changes

- > Regular community updates delivered to 190,000 homes surrounding YVR
- > Skytalk, YVR's monthly newspaper distributed across Sea Island
- Terminal Talk, YVR's quarterly newsletter sent to all airport tenants
- Media interviews and open and timely responses to media enquiries
- > The Airport Authority's website, www.yvr.ca, which features regular updates, facts and statistics and resources for those seeking additional information on the Airport Authority and operations at YVR

In 2004, Airport Authority President and CEO Larry Berg and other executives made 29 presentations to community, business and government associations.

The Airport Authority conducted 70 airport tours, hosting a total of approximately 1,500 guests, in 2004.

Several of the Airport Authority's marketing and communications initiatives received recognition in 2004: Airports Council International-North America awarded the Airport Authority third place for the 2003 Annual Report; the Airport Authority's shops and services advertisements and Flight Guide also received honourable mentions. The 2003 Annual Report received a second accolade at the 2004 Lotus Awards, which celebrate the best in Western Canadian advertising and graphic design work.





ENGAGING

Making ourselves available to answer questions and receive feedback is another way we connect with our communities. In 2004, the Airport Authority hosted a number of open houses in communities surrounding the airport to introduce and discuss airport plans:

- > South airfield construction open houses in Burkeville, North Delta, South Vancouver and Richmond
- Aircraft noise open house in Richmond's West Cambie neighbourhood
- > Hangar development open house in Burkeville
- > RAV Line open house, hosted by RAVCo at YVR

In June of 2004, the Airport Authority hosted a public open house to introduce the community to A-Pier, the domestic terminal's renovated wing. More than 3,500 people attended the event.

CONSULTING

The Airport Authority seeks input from a broad cross-section of stakeholders through community forums that meet regularly to discuss issues of concern. The Aeronautical Noise Management Committee (see page 34) and the Environmental Advisory Committee (see page 32) are comprised of a variety of representatives from diverse stakeholder groups, and provide direct input on sustainability issues including noise management at YVR, and the Airport Authority's Environmental Management Plan (see page 32).

MASTER PLAN CONSULTATION

In 2004, the Airport Authority began work on a 20-year Master Plan to guide the development of YVR from 2007 to 2027. And while our formal long-term planning extends only to 2027, the Airport Authority is looking 40 years out to ensure the decisions made in the coming years don't impede our options in the decades beyond.

In November, the Airport Authority launched the public consultation program for the Master Plan with a unique event called Forum '44: Flying 40 Years into B.C.'s Future. The Forum was a two-day conference on the future of the airport in the context of the local and global environment in 2044. The purpose of the event was to stimulate conversation about the future of YVR and examine the airport's role in supporting a sustainable future for the Lower Mainland, B.C. and Canada.

Speakers included the Honourable David Emerson, federal Minister of Industry, Premier Gordon Campbell and various environmental, aviation and industry experts. Presenters and panellists shared their views on sustainability trends, challenges and opportunities over the next 40 years. The format was interactive, with delegates—leaders in business, community and government—discussing and registering votes as issues were raised throughout the presentations and panel discussions.

On day two, delegates were presented with a number of future YVR development possibilities, including an additional runway, either north or south of the existing runways or out into the water; various configurations for future terminal expansions; ground transportation enhancements for future traffic levels, such as additional bridges and roads, a dedicated access route or transportation demand management; and site options for a larger, busier YVR able to support the some 45 million passengers, 500,000 aircraft take-offs and landings, and 53,000 direct jobs projected at YVR by 2044.

Raising these questions at the forum helped the Airport Authority identify the most important issues to take forward to the community during the consultation process. Over the next two years, the Airport Authority will hold meetings and consultations with community and industry groups, stakeholders and the airport's neighbours to seek input on future options available to YVR. The results of this process will inform the Airport Authority's 2007-2027 Master Plan.

COMMUNITY CONSULTATION PROGRAM

Because Forum '44 proved such a successful format for identifying issues and stimulating discussion, the Airport Authority hosted three additional forums in early 2005—one for B.C.'s young people, called Generation YVR, one for representatives from communities across B.C. served by YVR, and one for the general public. As with Forum '44, the interactive format asked participants to share their vision of the future 40 years from today, and identify and discuss YVR's role in promoting sustainability for the region, province and country.

For more on the Master Planning process and forum events, including presentations, conference speakers and delegates: Visit our website at www.yvr.ca > Airport Authority > Who We Are > The Future: Master Plan

YVR: PLANNING FOR A SUSTAINABLE FUTURE

MASTER PLAN COMMUNITY CONSULTATION PROGRAM VANCOUVER INTERNATIONAL AIRPORT AUTHORITY 2004 SUSTAINABILITY REPORT

	Consultation Topics	Results
STAGE 1 Aspirations of British Columbians January 2005 – June 2005	 > YVR Master Plan process > Development opportunities and challenges > Community involvement program 	 Stakeholder and community aspirations for YVR Input on criteria to evaluate options
STAGE 2 YVR 2027 Master Plan Alternatives July 2005 – December 2005	 YVR 2027 development alternatives and evaluations 	 Community input on the alternatives Ideas for addressing potential issues and opportunities
STAGE 3 Master Plan Recommendations January 2006 – June 2006	 2027 Master Plan recommendations Proposed Land Use Plan recommendations 	 Community response to Master Plan recommendations
STAGE 4 Draft Master Plan July 2006 – November 2006	 > YVR draft 2027 Master Plan > Proposed action plan > Recommended Land Use Plan 	 Community response and support for draft Master Plan and recommended Land Use Plan
STAGE 5 YVR Master Plan and Land Use Plan		 Community stakeholders are informed of YVR's future



COMMUNITY SURVEYS AND FOCUS GROUPS

The Airport Authority's public consultation activities include annual research with residents in the Greater Vancouver Regional District, conducted and compiled by an external consultant.

Using community surveys and focus groups, the research examines the effectiveness of the Airport Authority's communications and consultation programs, explores public opinion of activities and initiatives at YVR, and seeks recommendations for improving airport services and stakeholder communications.

More than 1,000 phone interviews and two focus groups were conducted in late 2004 with residents living near YVR and in other areas of the GVRD.

When community members were asked to rate their general impression of YVR on a scale from one to five, with five being excellent and one being poor, the average rating was 4.4, exceeding the Airport Authority's 2004 target of 3.9.

2005 Target: Average community satisfaction rating of 3.9.

The 2004 surveys and focus groups found that 77 per cent of residents get their information about the airport from major news media, making newspapers, TV and radio the community's number one sources for airport-related news. This represents a 13 per cent increase over 2003 and 2002, when 64 per cent of residents named media as their source for YVR information, and underlines the importance of the Airport Authority's media relations program.

The Airport Authority's Communications Department strives to provide open, timely and accurate responses to all media enquiries, and typically handles upwards of 50 media calls each month. The department coordinates media interviews and tours, and provides facts, figures and other written materials in response to general enquiries. The YVR Media Relations line (604.880.9815) is staffed 24 hours a day, including holidays, and media typically have their calls returned within the half hour during work hours, and within the hour on evenings and weekends.

Another way the Airport Authority uses news media to communicate is through the placement of advertisements announcing operational changes and community consultation initiatives such as open houses.

EMPLOYEE CONSULTATION

One of our most important communities is at YVR. Our employees are vital to our success, and one of the ways the Airport Authority builds a team of strong, capable and flexible professionals is by listening to our people. Climate Surveys allow us to collect and act upon employee feedback (see page 64).

All-employee meetings are held regularly and include updates from department managers and the executive committee on business results, ongoing initiatives and departmental objectives. Employees are invited to ask questions, provide feedback and share information with other employees and the management team.

Employees also share news and information through Connections, a quarterly newsletter written by and for employees and mailed directly to employees' homes. The Airport Authority intranet provides a forum for employees to post and share information on a daily basis. It also provides access to Airport Authority organizational charts and contact information, as well as policies, manuals and forms.

SERVING

The Airport Authority is actively engaged in the community. Through memberships on more than three dozen boards, task forces and committees, the President, Vice Presidents and members of our management team serve the community by lending their expertise and advocating for change to benefit the industry, region and province. In 2004, the Airport Authority served on the following:

- > Airports Council International
- > Air Transport Research Society
- > Asia Pacific Foundation
- > Association of Airport Internal Auditors
- > BCIT Aerospace and Technology Campus Cabinet
- > B.C. Aviation Council
- > Canada-China Business Council
- > B.C. Chamber of Commerce
- > B.C. Leadership Advisory Board
- > Business Council of B.C.
- > Canadian Airports Council
- > Canadian Chamber of Commerce
- > Canadian International Freight Forwarders Association
- > Chief Information Officers Association of B.C.
- > City Centre North Transit and Transportation Task Force
- > Conference Board of Canada
- > Council of Tourism Associations
- > Fraser Basin Council
- > Greater Vancouver Gateway Council
- > Hong Kong-Canada Business Association
- > International Air Cargo Association
- > International Air Transport Association
- > Pacific Asia Travel Association

- > Pacific Rim Cruise Association
- Resort Municipality of Whistler Transportation
 Planning Committee
- > RAVCo
- > Richmond Chamber of Commerce
- > Richmond Economic Development Task Force
- > Task Force on the Richmond Trade and Exhibition Centre
- > Tourism B.C.
- > Tourism Industry Association of Canada
- > Tourism Richmond, Tourism Vancouver
- > TransLink Intelligent Transportation Systems Corp.
- > Urban Development Institute
- > Vancouver Board of Trade
- > VGH/UBC Hospital Foundation
- > Volunteer Richmond
- > Whistler 2010 Transportation Task Force

Airport Authority employees engage with other professionals in their fields through individual memberships in more than 50 professional associations, including the Air and Waste Management Association, Canadian Environmental Auditing Association and the Recycling Council of B.C.

Many of our employees are volunteers. We support their efforts as coaches, canvassers and fundraisers in the community. Our own volunteers, the Green Coats, continue to act as goodwill ambassadors, helping visitors navigate the airport by providing directions, information and translation services. YVR's Green Coats contribute 36,000 hours of volunteer service each year. In 2004, they proudly celebrated their 15-year anniversary.





ART AT YVR

The Airport Authority's art program does more than provide a stunning backdrop at YVR. Our selection of Northwest Coast sculptures, murals, carvings, tapestry and numerous other art forms showcase the Musqueam and other First Nations' rich artistic heritage. The YVR Art Foundation supports established and emerging B.C. artists, and fosters the development of

Northwest Coast Native art by broadening its market and encouraging its public display.

For more information on art at YVR: Visit our website at www.yvr.ca > Airport Guide > Things to Do at YVR > Airport Art

Design HANGAR 18 CREATIVE GROUP INC Photography LARRY GOLDSTEIN Printing GENERATION PRINTING THIS REPORT WAS PRINTED ON SAVE-A-TREET 100% POST-CONSUMER RECYCLED PAPER VANCOUVER INTERNATIONAL AIRPORT AUTHORITY

Airport Operations—General Enquiries 604.207.7077 Administrative Offices 604.276.6500 Business & Land Development 604.276.7739 Community Relations 604.276.6772 Engineering 604.276.6780 Environment 604.276.6656 Human Resources Employment Information 604.276.6506 Legal Services 604.303.4846 Maintenance Services Administration 604.276.6823 Marketing (Airport & Passenger) 604.276.6008 Media Relations 604.880.9815 Noise Information 604.207.7097 Parking & Ground Transportation Administration 604.276.7739 Purchasing & Contract Services 604.276.6633 Retail & Passenger Services 604.303.3447 Terminal Services & Facilities 604.276.6373

P.O. BOX 23750 AIRPORT POSTAL OUTLET RICHMOND BRITISH COLUMBIA CANADA V7B 1Y7 Telephone 604.276.6500 Facsimile 604.276.6505

community_relations@yvr.ca environment@yvr.ca

www.yvr.ca

For additional copies of this report, contact Community Relations at 604.276.6772

