Building ....

- Our corporation
- Our connections
- Our community
Community Focused

- WAA was established in 1997
  - non-share capital corporation
  - self-sufficient
    - Income is generated through fees charged for transportation services, concessions, parking, rentals.
    - All net profit is reinvested into the community, primarily through airport development projects.
Cornerstones

Vision

– To Lead Transportation Innovation and Growth

Mission

– With our community, we provide excellent airport services and facilities in a fiscally prudent manner

Values

– Respect, Integrity, Service Excellence (RISE)
Strategic Directions

Deliver and operate excellent facilities and services

Enhance customer service and value

Develop and realize employee potential

Develop new revenue streams

Be an effective community partner

Expand air service to and from Winnipeg
Our Model

- Airport Redevelopment
- Airport Campus
- Inland Port

Winnipeg as an integrated, intermodal, “Airport City”

More Partnerships required
Investments in Airport Infrastructure

- $310.7 million since 1997
  - Runways
  - Cargo Parking Pads (Aprons)
  - Loading Bridges
  - Central Aircraft De-Icing Facility
  - Parking Lots and Covered Parkade
  - Retrofit of Central Utility Building (Powerhouse)
  - Airport Site Redevelopment
Total Passenger Volumes

2003 2004 2005 2006 2007
Total Cargo Volumes (Metric Tonnes)
How airports function...

Airports have six key responsibilities to their customers

1 and 2 are: *Safety and security* of passengers, employees, operations and facilities
3. Providing quality service to users
4. Efficiency
5. Environment
6. Economic Development
Aviation Industry Commitment to Action on Climate Change

As leaders of the aviation industry, we recognise our environmental responsibilities and agree on the need to:

- build on the strong track record of technological progress and innovation that has made our industry the safest and most efficient transport mode; and
- accelerate action to mitigate our environmental impact, especially in respect to climate change while preserving our driving role in the sustainable development of our global society.

Therefore, we, the undersigned aviation industry companies and organisations declare that we are committed to a pathway to carbon-neutral growth and aspire to a carbon-free future.

To this end, in line with the four-pillar strategy unanimously endorsed at the 2007 ICAO Assembly, we will:

1. push forward the development and implementation of new technologies, including cleaner fuels;
2. further optimise the fuel efficiency of our fleet and the way we fly aircraft and manage ground operations;
3. improve air routes, air traffic management and airport infrastructure; and
4. implement positive economic instruments to achieve greenhouse gas reductions wherever they are cost-effective.

We urge all governments to participate in these efforts by:

1. supporting and co-financing appropriate research and development in the pursuit of greener technological breakthroughs;
2. taking urgent measures to improve airspace design including civil/military allocation, air traffic management infrastructure and procedures for approving needed airport development; and

Our efforts and commitment to work in partnership with governments, other industries and representatives of civil society will provide meaningful benefits on tackling climate change and other environmental challenges.

We strongly encourage others to join us in this endeavour.
Economic Impact Key Findings

- **Revenue**
  - Direct impact: $520 million GDP
  - $1.3 billion economic output
  - Generate tax revenue $200 million annually

- **Employment**
  - Support 9,300 direct jobs
    - $390 million wages
  - 20,800 total Manitoba jobs
    - Total economic output $2.6 billion
Annual Micro Economic Impacts

- Daily passenger flight:
  - 42.3 FTEs
  - $1.6 M in wages
  - $2.3 M in GDP
  - $5.3 M in economic output

- Daily cargo flight:
  - 48.0 FTEs
  - $2.1 M in wages
  - $3.0 M in GDP
  - $7.3 M in economic output
“The future ain’t what it used to be”

Yogi Berra
A viable airport is a necessity in terms of the social and economic life of the region.

- Winnipeg Airports Authority Inc is addressing these needs through the Airport Infrastructure Redevelopment Plan

- Business in transformation
  - Infrastructure
  - Service
  - Experience
Airport Site Redevelopment
Program Definition

- Undertook in-depth planning process including:
  - Traffic forecasts
  - Condition & capacity analysis
Consultation Process

- Ongoing input, feedback & updates
  - Carriers & major customers
  - Aviation industry stakeholders
  - Passengers
  - Community
Planning Criteria: Traffic Volumes

- Forecast 2015 passenger volumes with expandability to meet forecast 2020 volumes:
- An additional 1 million meeters/greeters annually
Audit of 117 components
Redevelopment Schedule

- 2005-08 Roadways/Site works
  - 2005-06 Parkade
  - 2007-10 Airport Terminal Building (Phase I)
  - 2007-10 Airside

Future Airport Terminal Building (Phase II)
## Redevelopment Economic Impact

<table>
<thead>
<tr>
<th>Metric</th>
<th>Manitoba</th>
<th>Canada-wide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person years</td>
<td>6,370</td>
<td>8,132</td>
</tr>
<tr>
<td>Wages</td>
<td>$273 million</td>
<td>$359 million</td>
</tr>
<tr>
<td>GDP</td>
<td>$343 million</td>
<td>$485 million</td>
</tr>
<tr>
<td>Economic output</td>
<td>$1,009 billion</td>
<td>$1,207 billion</td>
</tr>
</tbody>
</table>
Program Development Group

- Design Groups
  - Pelli Clarke Pelli Architects
  - Stantec Architecture
  - Marshall Macklin Monaghan
  - Unison-Maximus
  - Apple Designs
  - Earth Tech Canada

- Program Management Support
  - Parsons
  - Wardrop Engineering
  - Hanscomb
  - TRH
Airport Site Redevelopment

- Employment passed 848,037 person hours in Airport Redevelopment construction
  - 300 people on site at any given time
- Total Airport Redevelopment expenditures were $253.7 million to date.

- Project Divided into 4 areas:
  - Air Terminal Building
  - Airside
  - Groundside
  - Central Utilities Building
Air Terminal Building

- Site excavation complete
- Erection of structural steel for passenger departures concourse 70% complete
Airside

- Airside development finished ahead of schedule
- Air Terminal Building aircraft parking area complete
- Underground aircraft fuelling system installed
- New airside storm water drainage system complete and in operation
Groundside

- Roadway progress
- Completed new storm water forcemain
- Ramp to four-level parkade operational
- Initiated elevated roadway for new air terminal building
Central Utilities Building (CUB)

- 97% efficient
- New state-of-the-art boilers
- New chiller system
- Tunnel being constructed to provide service from CUB facility to new terminal building
LEED

Leadership in Energy and Environmental Design

☐ Consensus-based system for designing, constructing, operating and certifying green buildings

☐ Created by US Green Building Council, adapted for Canada by Canada Green Building Council
LEED

Five categories:

- Sustainable Sites
- Water Efficiency
- Energy & Atmosphere
- Materials & Resources
- Indoor Environmental Quality
Sustainable Features

- Sedimentation separation on land drainage system
- Waste management & recycling
- Non-irrigated planting system using indigenous self-supporting plants and other natural materials
Sustainable Features

- **Central Utility Building:**
  - Heat reclamation on boiler flues
  - High-efficiency boilers
  - High-efficiency chillers
  - High-efficiency motors and lighting
  - Revised automated controls
Sustainable Features

- New Air Terminal Building
  - Recycled content in materials
  - High levels of insulation
  - Radiant heating and cooling
  - Integrated automated controls
  - Low-flush plumbing fixtures
  - High-efficiency motors and lighting
Conventional vs. Displacement HVAC
Sustainable Lighting Approach
Conventional vs. Direct/Indirect Lighting
Our Model

Airport Redevelopment

Airport Campus

Inland Port

Winnipeg as an integrated, intermodal, “Airport City”

More Partnerships required
Airport Campus Focus

- Creating an Airport Campus by building critical mass of related airport businesses
  - extends that influence and addresses **customer needs**.
- Customer experience enhancements
  - Services
  - Entertainment and Education
- Building on existing strength
  - Distribution and facilities
  - Aviation and Aerospace
Our Model

- Airport Redevelopment
- Airport Campus
- Inland Port

Winnipeg as an integrated, intermodal, "Airport City"

More Partnerships required
What we’ve heard…

- Growth will continue
  - Cargo greater than passenger
- International liberalization will accelerate
  - Multi-national carriers
- Process (including airport) efficiency required
- Issues
  - Not all airports will see exponential growth
Irreversible trends of the 21st century

- Airports are the centre of integrated multi-modal flows of people, goods, information and capital
- Growth will continue
  - Cargo greater than passenger
- International liberalization will accelerate
  - Multi-national carriers
- Process efficiency required
- Issues
  - Not all airports will see exponential growth
- Key drivers:
  - Globalization
  - Time based competition
  - Cost efficiencies
Air Commerce Facts

- 40% of the value of world trade now goes by air (vs. under 2% by weight)
- World air cargo traffic is expected to triple over the next 17 years (international air express 3 times faster)
- Air commerce is generating airport cities around major passenger and cargo airports
It’s not about the airport
…its about trade!

- Strategies must have the community working together toward developing trade

- It is about
  - Connectivity
  - Using the airport as an engine of our economic growth
    • Building on historic strengths
    • Focusing on future growth opportunities
WAA approach

- Position airport and area as a regional and global centre of air commerce
  - multi-modal infrastructure, facilities and trade-related services
- Work with the community to develop airport-driven planning guidelines that positively impact:
  - business, aesthetic and social development
- Examine proposed future surface transportation linkages to the airport to improve multi-modal synergies and efficiencies
Cargo Tonnage Handled at Canada’s Busiest Airports, 2007

<table>
<thead>
<tr>
<th>Airport</th>
<th>Tonnes (,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toronto</td>
<td>516</td>
</tr>
<tr>
<td>Vancouver</td>
<td>226</td>
</tr>
<tr>
<td>Montreal-Dorval</td>
<td>157</td>
</tr>
<tr>
<td>Winnipeg</td>
<td>156</td>
</tr>
<tr>
<td>Calgary</td>
<td>134</td>
</tr>
<tr>
<td>Montreal-Mirabel</td>
<td>114</td>
</tr>
<tr>
<td>Hamilton</td>
<td>101</td>
</tr>
<tr>
<td>Edmonton</td>
<td>42</td>
</tr>
<tr>
<td>Halifax</td>
<td>30</td>
</tr>
</tbody>
</table>

Source: Unofficial statistics reported by each airport
WINNIPEG – CANADA’S CENTRE FOR GLOBAL TRADE

Connecting transportation with trade

> Competing in world markets
Questions
Transport’s footprint

- Aviation accounts for 2% of worldwide CO2 emissions from fossil fuel use, according to a forecast by the UN International Panel on Climate Change. This could reach 3% by 2050. (Working Group III Report, IPCC May 2007, p. 6)
- Transport in general accounts for 23% of global greenhouse gas emissions, behind the power and land use sectors and the same as the agriculture sector, according to the IPCC (Working Group III Report (May 2007))
- Aviation is responsible for 12% of CO2 emissions from all transport sources, compared to 76% from road transport. (Stern Report Annex 7)
- European aviation accounts for 0.5% of worldwide CO2 emissions. (‘EU Energy and Transport in Figures’, Eurostat 2004. Int’l aviation accounts for 2% of global manmade CO2 emissions.)
- 80% of aviation’s greenhouse gas emissions are related to passenger flights exceeding 1,500 km/900 miles, for which there is no practical alternative. (AERO modelling system, Pulles J.W. et al., 2004)

Improving efficiency

- Aircraft entering today’s fleets are 70% more fuel-efficient than they were 40 years ago.
- Aircraft operations have become 20% more fuel-efficient over the past 10 years. (5% fuel efficiency gain in 2004 - 2005, World Air Transport Statistics, IATA, 2006, p.80)
- The Working Group III Report (May 2007) by the UN International Panel on Climate Change (IPCC) expects fuel efficiency to improve by 1.3% a year.
- Aviation boasts high occupancy rates exceed 75%, compared to 40-50% for trains and 30% for cars.
- Over the past 40 years, emissions of carbon monoxide from aviation have been reduced by 50%.
- Over the past 40 years, emissions of hydrocarbons from aviation have been reduced by 90%.
- Over the past 15 years, oxides of nitrogen (NOx) from aircraft engines have been progressively reduced by 50%.
- Aircraft and engine manufacturers devote up to 15% of turnover to research.
- Air transport covers the shortest distance between two points, generally 30% shorter than the same route taken by a form of land transport.
- Today, around 73 million tonnes of CO2 are wasted every year around the world due to infrastructure inefficiencies.