



# **NEW FLYER**

## **Continuous Improvement with P2**

June 13, 2007





**Diesel Hybrid with Low-Profile Roof  
Edmonton, AB**

# New Flyer - Facts

- Leading heavy-duty transit bus market share in Canada and the US
- Over 2,100 employees in head office, three production facilities, Customer Services group and new product development
- Ongoing commercial relationships with 19 of the 25 largest transit agencies in Canada and the US



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# New Flyer - Facts

- Long-standing history of innovation with 77 years in the heavy-duty bus manufacturing industry
- Committed to advancing the heavy-duty bus industry in North America
- Industry's broadest selection of alternative fuel and hybrid propulsion systems in a variety of advanced bus designs



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# Awards and Recognition

- **CALSTART 2004 Blue Sky Award**  
Recognizing organizations and individuals promoting real change in clean, advanced transportation technologies
- **Recognized by General Motors Canada 2004 Mission Green Tour**  
Recognizing 85 Canadian environmental initiatives helping to create a cleaner, healthier environment
- **CCME 2005 Pollution Prevention Award**  
Large Business Award, recognizing 46% VOC reductions
- **CUTA 2005 Award for Safety**  
Loss Time Accident rate reduction of 83% over past four years. Update for 2006 - Loss Time Accident rate reduction 46%



CCME  
2005

POLLUTION PREVENTION  
PRÉVENTION DE LA POLLUTION



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# Awards and Recognition

- **Minnesota Safety Council – Governor’s Safety Award 2005**  
Recognizing a 52% decrease in WCB claims at the Crookston facility
- **Human Resources Management Association of Manitoba 2006**  
Platinum award for excellence in leadership
- **Canada’s Top 100 Employers 2006, 2007**  
Particularly notable, given the record number of employers (55,000 employers across Canada) considered for the award.
- **MARTA 2006 Effective Partnership in Quality Medal**  
for helping to improve service delivery through the utilization of quality principles, for quality products that exceeded expectations for customer support and for demonstrated quality and safety leadership initiatives



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# New Flyer Management System (NFMS) - Corporate Philosophy

- Customers demand high quality products and society demands a high degree of environmental and health & safety stewardship from manufacturers operating in its communities
- It is important for all New Flyer personnel to understand and accept their role in meeting these expectations



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# NFMS - Exceeding Expectations

- New Flyer has been registered to the ISO 9001:2000 quality standard since 2000.
- New Flyer has been registered to the ISO 14001:2004 environmental standard since June 2005
- New Flyer has been registered to the OHSAS 18001 Health & Safety standard since September 2005.
- Less than 200 North American companies are registered to all three standards; few of those utilize a combined management system.



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**Electric Trolley - Vancouver, BC**





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**Manufacturing Operations**



# New Flyer - History

- 1930 - Established in Manitoba as *Western Auto and Truck Body Works Limited*
- 1948 - Renamed *Western Flyer Coach*
- 1986 - Purchased by Jan Den Oudsten (owner of Den Oudsten Buses in Holland) and renamed *New Flyer Industries Limited*



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## New Flyer - History

- 1996 - Opened finishing plant in Crookston, MN
- 1999 - Opened a state-of-the-art full production facility in St. Cloud, MN
- 2005 - Completed initial public offering, becoming a publicly traded company on the Toronto Stock Exchange



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# New Flyer - History of Innovation

- New Flyer has a long history of leadership and innovation and has been credited with many firsts in the North American bus industry



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# New Flyer - History of Innovation in North America

- First to introduce and commercialize low-floor buses (1988)
- First to implement PLC Multiplexing (1994)
- First to introduce and commercialize alternative fuels in the HD bus industry (1994)
- First to introduce heavy-duty hydrogen fuel cell buses (1995)
- First to deliver diesel-electric articulated hybrid buses (2002)
- First to introduce and commercialize a premium low-floor bus, Invero (2003)
- First to deliver gasoline-electric hybrid buses (2004)
- First to implement hydrogen-hybrid technology into heavy-duty buses (2004)
- First to introduce and commercialize New Generation of trolley buses (2005)





**World's First Hydrogen Fuel Cell Vehicle**



**World's First Hydrogen Hybrid Vehicle**



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## **Product Overview**



# New Flyer Vehicles



# New Flyer Heavy-Duty Buses

- Adaptable to a variety of transportation segments including transit, and shuttle services
  - Low cost of ownership over vehicle lifetime (12 to 18 years)
  - Industry-proven structure and design
    - Over 14,000 New Flyer buses in service across North America
  - Fully-tested (Altoona and Bodycote) and FMVSS and CMVSS certified



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**BRT - Eugene, OR**



# New Flyer Heavy-Duty Buses

- Available in 30', 35', 40', 60' and in a variety of advanced designs
- Available in a variety of propulsion configurations
  - Fuel cell
  - Compressed Natural Gas (CNG)
  - Liquefied Natural Gas (LNG)
  - Hybrids (including Parallel and Series configurations)
    - Diesel-electric
    - Gasoline-electric
    - Hydrogen-electric
  - Electric trolley
  - Ultra-low sulfur diesel (ULSD)



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**BRT - Cleveland, OH**



# New Flyer Leadership - Hybrids

- 748 New Flyer hybrid buses in service or on order through 2007
  - Over 30 North American properties
  - Revenue service miles totaling over 12 million miles – more than any other transit bus manufacturer in Canada and the US
- New Flyer is the only heavy-duty bus OEM to offer parallel and series hybrid electric configurations
- 280 HP heavy-duty engine
  - Lowers fuel consumption as engine operates at lower RPM
- Efficient, Electrically-driven components
  - Many auxiliary components (e.g., cooling system) are electrically driven, lowering emissions and increasing electrical efficiencies
- Fully Tested
  - All buses tested at Altoona Bus Research and Testing Center
  - Environment Canada Emission Testing



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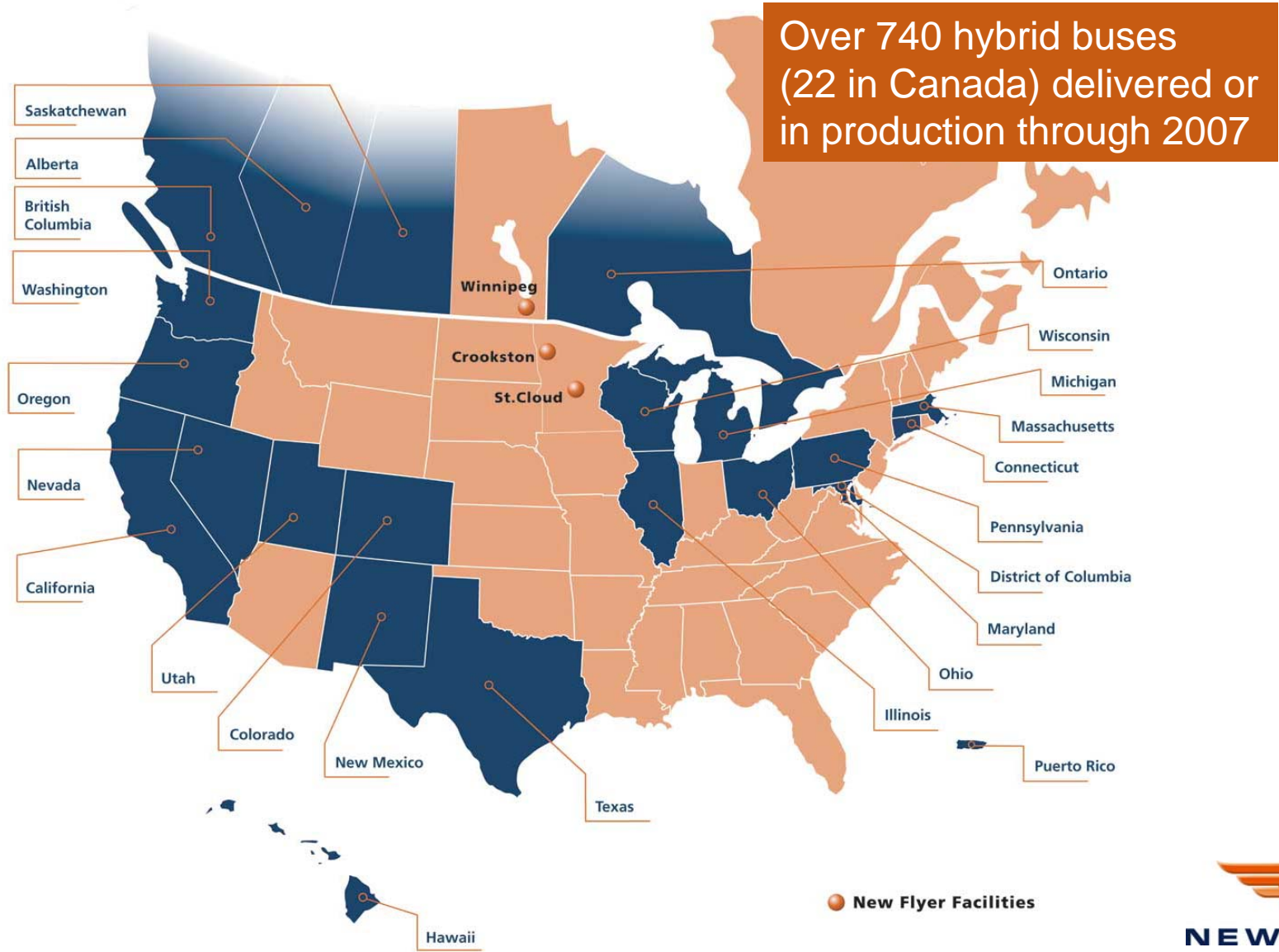
# New Flyer Delivers Canada's First Hybrid Vehicle



**Diesel-Electric - Victoria/Kelowna, BC**



Over 740 hybrid buses  
(22 in Canada) delivered or  
in production through 2007



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# New Flyer Leadership - Natural Gas Vehicles

- 57 customers, to date
  - Over last ten years, the majority of all CNG heavy-duty vehicles purchased have been New Flyer products
  - New Flyer currently has over 3200 CNG and LNG vehicles in revenue service or on order - more than any other manufacturer



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**VOC Reduction Program**



# VOC Reduction Program

New Flyer's focus on producing innovative, environmentally friendly transit solutions is mirrored in its manufacturing operations



**CNG - Vancouver, BC**



# VOC Reduction Program

- Volatile Organic Compounds (VOC) associated with adhesives, sealants and painting operations represented the most significant environmental impacts of New Flyer's operations
- Program focuses on source elimination rather than end-of-pipe control technology



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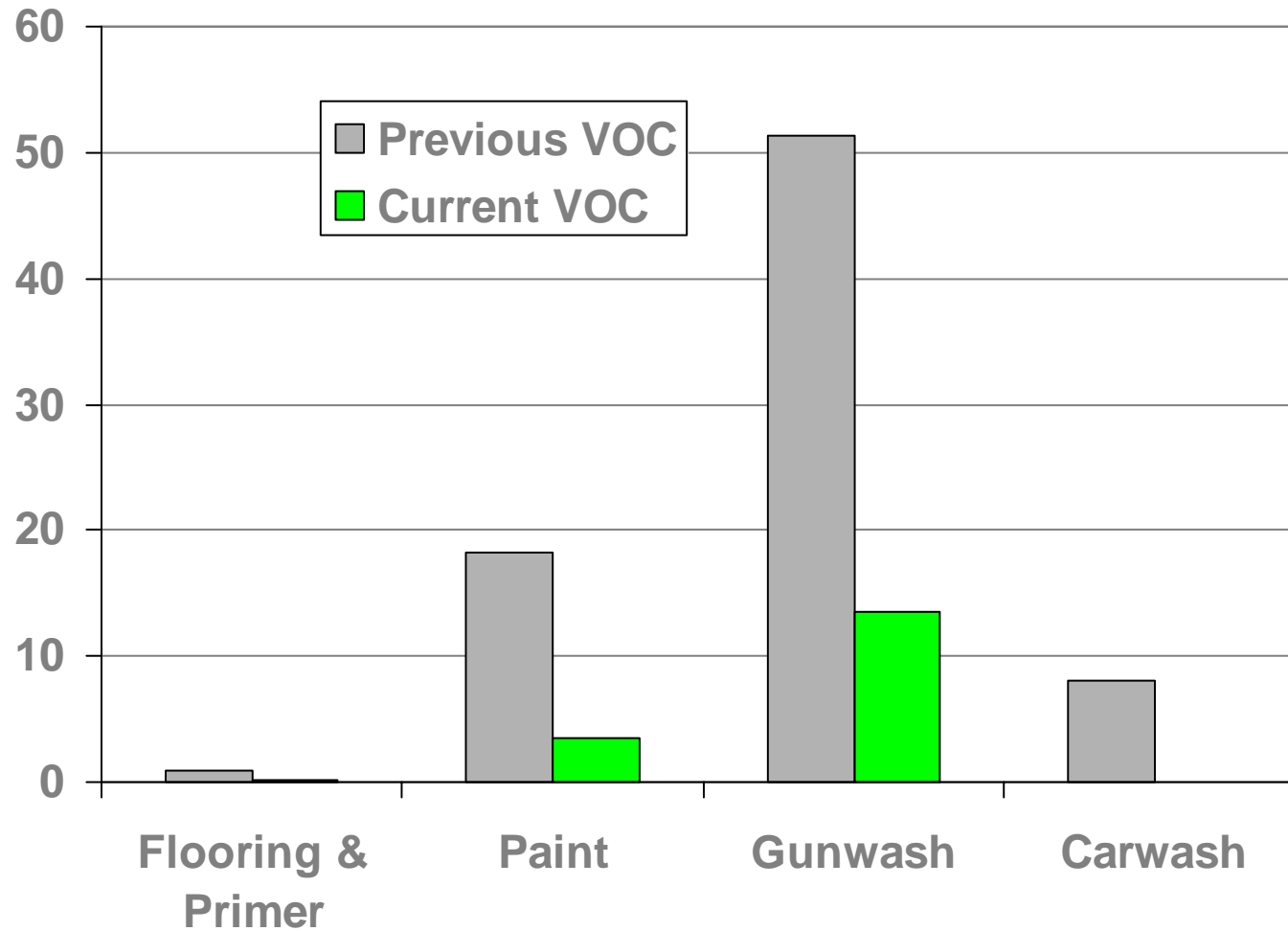
# VOC Reductions - 2007 Targets

Key Area	Investment	Plantwide	Area	Total	Target Date	Savings Per Bus
Flooring (adhesive)	Time/Testing	0.11%	59%	0.07%	Aug 03	\$64.36
Flooring (filler)	Time/Testing	0.31%	100%	0.31%	Aug 03	
Primer (frame)	Time/Testing	0.44%	72%	0.31%	Aug 03	\$112.82
Paint (high solids)	Time/Testing	18.17%	81%	14.72%	Oct 03	No Savings
Gunwash (paint)	\$160,000	42.07%	90%	37.86%	Feb 04	\$146.05
Gunwash (zinc)	\$7,000	9.24%	0%	0%	Aug 07 (projected)	\$10,000 (per year)
Carwash (prep)	Time/Testing	8.03%	100%	8.03%	May 05	\$100

\*Dollar amounts reported in Canadian funds



# VOC REDUCTIONS - 46% Plantwide



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# Benefits of VOC Reduction

- Decreased facility odor emissions
- Reduced chemical exposure for workers
- Innovation of new “Low” or “Non” VOC products
- Technology sharing with New Flyer’s US facilities and colleagues in the transit industry (bus, rail and RV)
- Reduced greenhouse gas generation (160 metric tonnes of CO<sub>2</sub> equivalents)



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# Improved Work Environment



## ➤ Using low-VOC flooring adhesives

- Produced minor plantwide reductions
- Dramatically improved worker health & safety
- Eliminated the need for respirators
- Allows New Flyer to focus on ergonomic improvements

# Continuous Pollution Prevention

Key Area	Investment	Plantwide	Area	Total	Target Date	Annual Savings
Power Wash (phosphate free)	Test/Timing	100%	100%	100%	May 06	\$2,000
Zinc Prime Mix Room (bulk chemical use)	\$85,000	42%	24%	10%	Aug 2007	\$180,000
Zinc Prime (powder coating)	\$1 Million	42%	98%	41%	2008 (Projected)	\$1 Million
Stainless Steel Frame (1 line)	\$300,000	42%	50%	21%	2008 (Projected)	\$300,000
Water Based Paint	\$500,000 Estimated	95%	100%	95%	3-5 yrs (Projected)	\$200,000

\*Dollar amounts reported in Canadian funds





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**Miles Ahead.**

