

WELCOME

MOVE THE WORLD FORWARD  **MITSUBISHI
HEAVY
INDUSTRIES
GROUP**



MHI CANADA AEROSPACE, INC.



a group company of



Presentation to the 2nd National Labour Market Strategy – Nov 9, 2017

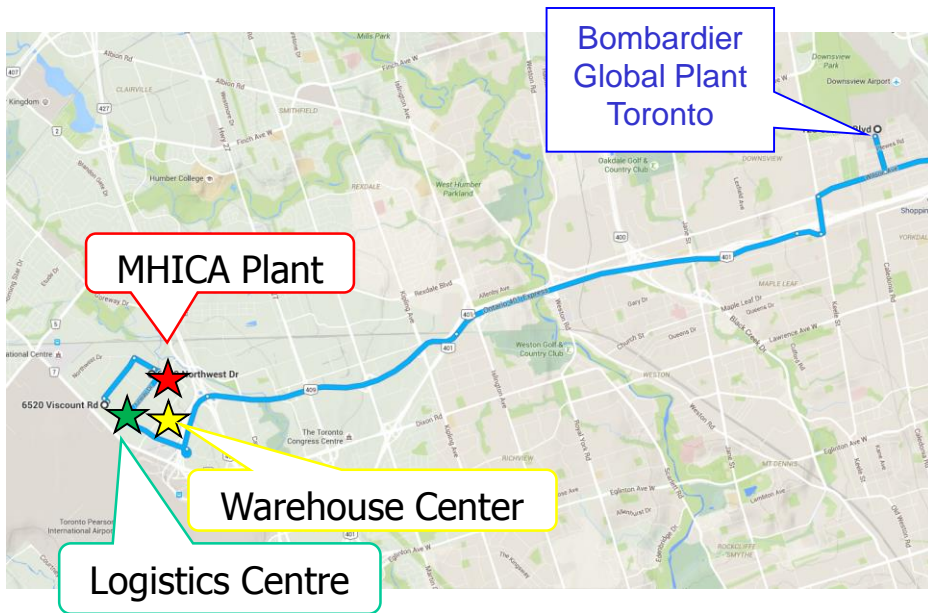
Alex Tsoulis – Director Business Development, Advanced Technologies

Who are We?



MHICA is a recognized Canadian Tier 1 Heavy Aerostructures Wing and Fuselage Manufacturing Site and Group Company of Mitsubishi Heavy Industries.

LOCATION – MISSISSAUGA ONTARIO

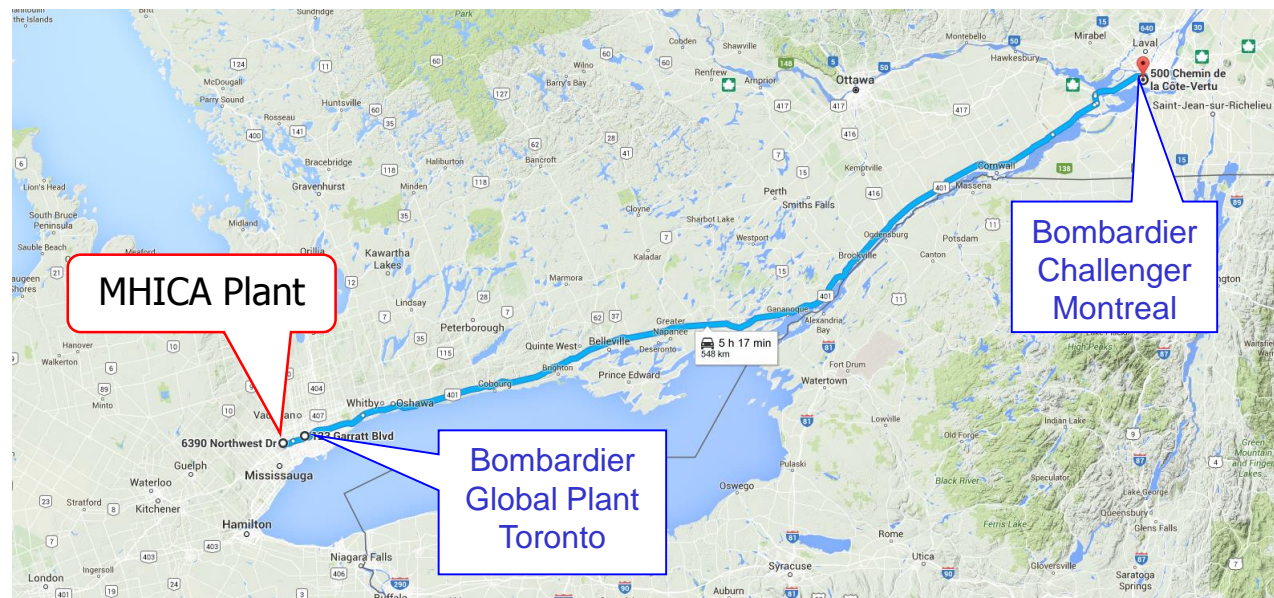


Facilities: Total of 384,000 sq. ft.

- **Main Plant - Production:**
 - Production: 250,000 sq. ft.
 - Office: 20,000 sq. ft.
- **Supply Chain and Logistics Centre:**
 - 65,000 sq. ft.
 - Office: 5,000 sq. ft.
- **Warehouse Center:**
 - 40,000 sq. ft.
 - Office: 4,000 sq. ft.

Employees:

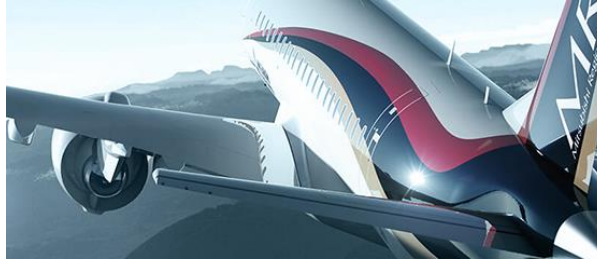
- **750 Employees**
- **Non-Unionized**
- **2 Shifts Operation**
- **3 Shifts on Auto-Drill**
 - Automated Operations



Mitsubishi Heavy Industries – Products



ENERGY



AIRCRAFT



SPACE



SHIP & OCEAN



TRANSPORTATION



MATERIAL HANDLING



ENVIRONMENT



AUTOMOTIVE



INDUSTRIAL MACHINERY

MHI Commercial Aircraft Programs – Single Aisle and Widebody



787 (Small Widebody) - Japan has 35%.
MHI makes the Outer Wing Box.



777 and 77X (Medium Widebody) - Japan has 20% on 777 and 22% on 777X.
MHI makes the Aft Fuse Panels, Tail Fuse Section and Passenger Entry Doors



767 (Small Widebody) - Japan has 15%
MHI makes Aft Fuse Panels and Cargo Doors.



747 (Large Widebody) - MHI makes the Centre Wing Box and Inboard Flaps



737 (Single Aisle) - MHI makes the Inboard Flaps

MHI Integrated Defense & Space

MHI X-2
Advanced Technology
Demonstrator

Roll-Out Jan 2016



- Stealth
- Thrust Vectoring

With Lockheed



F-35

Prod'n Start Dec 2015,
1st Delivery June 5, 2017

With Boeing



F-15J

199 Deliveries

With Sikorsky



UH-60J

75 Deliveries



F-2

61 Deliveries



F-4J

140 Deliveries

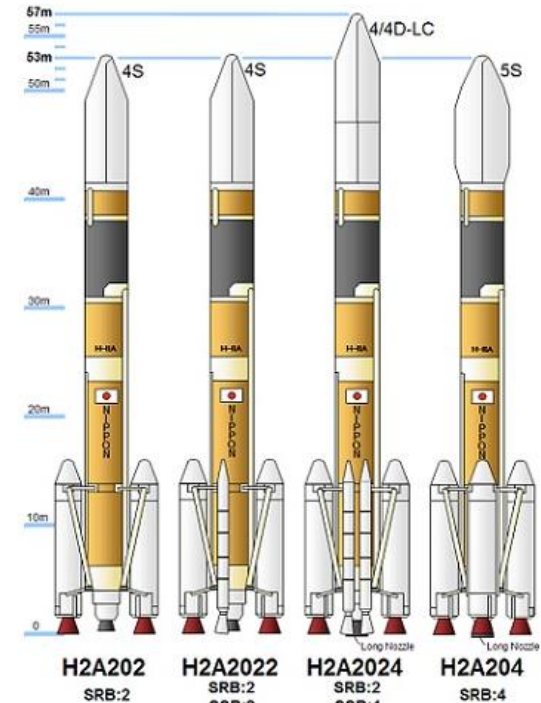


SH-60J

103 Deliveries

MHI Launch Vehicle H-IIA & B (H-2A & B)

a group company of



JAXA's Mitsubishi Heavy Industries H-IIA (H2A) rocket is a two (2) stage expendable rocket and is the medium lift vehicle in the H-II Rocket Family along with the H-II and the H-IIB and it stands 53m (173.8 ft.) tall. The H-IIA has a lift capacity of 10 tons to Low Earth Orbit (LEO), 4 tons to Geosynchronous Transfer Orbit (GTO), 4 tons to Sun Synchronous Orbit and only about 2.5 tons to Earth Escape Velocity.

Bombardier Global 5000/6000



Work Package: Wing and Centre Fuselage

**Structural Assembly
Wing/Center Fuse Joint (Pre-fit),
Flight Control Installation and Riggings,
Systems Installation and Test**

Wing Span: 28.7 m (94 ft.)

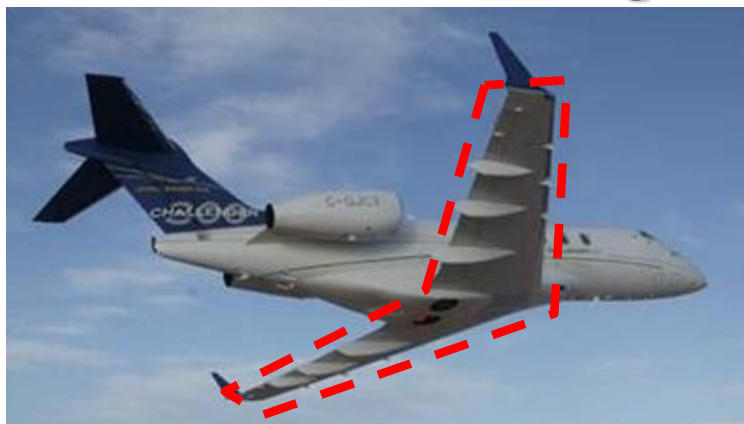
Wing Area: 94.9 m² (1,021 ft²)

High Speed Cruise: Mach 0.88

Max. Altitude: 51,000 ft.

Max. Range: 5,200 nm (G5000) / 6,000 nm (G5000)

Bombardier Challenger 350



Work Package: Wing

**Structural Assembly, Systems
Installation and Test**

Wing Span: 21 m (69 ft.)

Wing Area: 48.5 m² (522ft²)

High Speed Cruise: Mach 0.82

Max. Altitude: 45,000 ft.

Max. Range: 3,200 nm

Bombardier Global 5000/6000

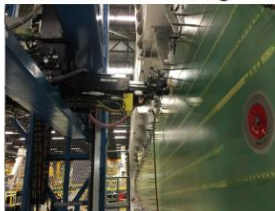
Riveting Assembly Jig



Automated Riveting



Automated Drilling



Set Dihedral,
Sweep & Incidence
Wing to Center Fuse Join



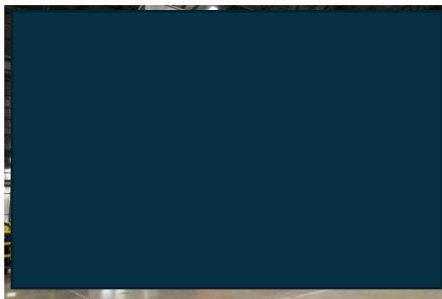
Leading Edge / Trailing Edge / Final Rigging



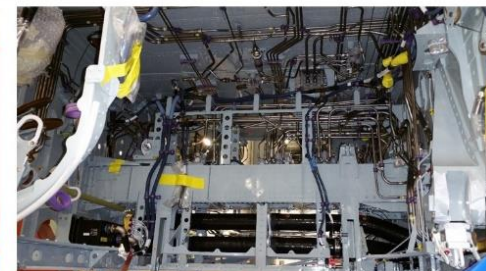
Final Assembly Jig



Automated Guided Vehicle



Systems Installation & Test



Bombardier Challenger 350

Structure Assembly



Automated Drilling Machine
Horizontal Vertical



Wing Box Assembly



Systems Installation



Professional and Social Affiliations

a group company of
 **MITSUBISHI**
HEAVY INDUSTRIES, LTD.

PROUD MEMBER



MISSISSAUGA
BOARD OF TRADE



JAPANESE CANADIAN
CULTURAL CENTRE
日系文化会館

BOMBARDIER



Government
of Canada

Gouvernement
du Canada

Canada



SAULT
COLLEGE



Sheridan



partnersformentalhealth



Carleton
UNIVERSITY



RYERSON
UNIVERSITY



MHICA Structural Airplane Apprentice Program – Overview

Developed with the:

- Ontario Manufacturing Learning Consortium (OMLC)
- Ontario Aerospace Council

Offered to people between the ages of 18-29:

- Pre-screen and Interview, Will Accept without High School Diploma
- Customized Realistic Training Centre – Accommodates 24 Students
- **Structural Module 1 for 5 Weeks**
 - Human Factors, Hole Drilling, Measuring, Fastener Install, Sealing
- **Structural Module 2 for 5 Weeks**
 - Engineering Drawings, Specialty Fasteners, Paint & Process, Materials
- **Systems Module 3 for 3 Weeks**
 - Human Factors, FOD, Integral Fuel Tank, Specialty Fittings
- **Avionics Module 4 for 2 Weeks**
 - Electrical Installation, Wire Harnesses, Bonding
- **1 Year Apprentice & Mentoring, Full Time with MHICA**
 - Train Students for our Customers and Suppliers
- **Very Successful Program**

MHICA Engagement with Universities, Colleges and Canadian Forces

Universities and Colleges:

- **Industry Advisory Board with:**
 - Ryerson, Concordia, Carleton
 - Interactive Engagement
 - Research & Innovation
 - Co-Op and Recruiting
 - Guest Lecturers, Capstone Projects
- **Involvement with Colleges:**
 - Mohawk, Sheridan, Sault College, Humber
 - Co-Op and Recruiting

Military Employment Transition (MET) Program:

- **Includes Enlisted, Reserves and Spouses**
- Transition from Military to Civilian Career
 - Covers Privates to Generals
- Portal Site to Post Jobs
 - Postings for Immediate Need, Near Term and Far Term Needs

THANK YOU FOR YOUR ATTENTION

VISIT US FOR A TOUR

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