



Chihuahua's
AEROSPACE
CLUSTER

WHERE ARE WE LOCATED?



The **State of Chihuahua** is located in northwestern Mexico, sharing an extensive border with the U.S. through the States of **New Mexico and Texas**.



Chihuahua City, the Capital of the State, it is located 350 Km far from the U.S. via Ciudad Juarez and 260 Km via Ojinaga



Aerospace Cluster

WE ARE AN ASSOCIATION

of companies working together to enhance

the growth of the aerospace industry within the city of Chihuahua



- ▶ Creating a business ecosystem among our members, through networking.
- ▶ We promote foreign and national investment.
- ▶ We develop the supply chain.
- ▶ We participate with educational institutions for the development of talent that our industry requires.
- ▶ We work together with government institutions and private initiative to develop growth plans for the aerospace industry.



Structure of THE CLUSTER



HONORARY MEMBERS



Chihuahua Global



PRESIDENT
Luis M. Azúa



CLUSTER MANAGER
Michelle Miledi

BOARD OF DIRECTORS



SUPPLY CHAIN
Jaime Gutiérrez



TALENT DEVELOPMENT
José Nuñez



PROMOTION
Sandra Malottky



COURSES AND CERTIFICATION
Igor García



INNOVATION AND TECHNOLOGY
Alejandro Cárdenas

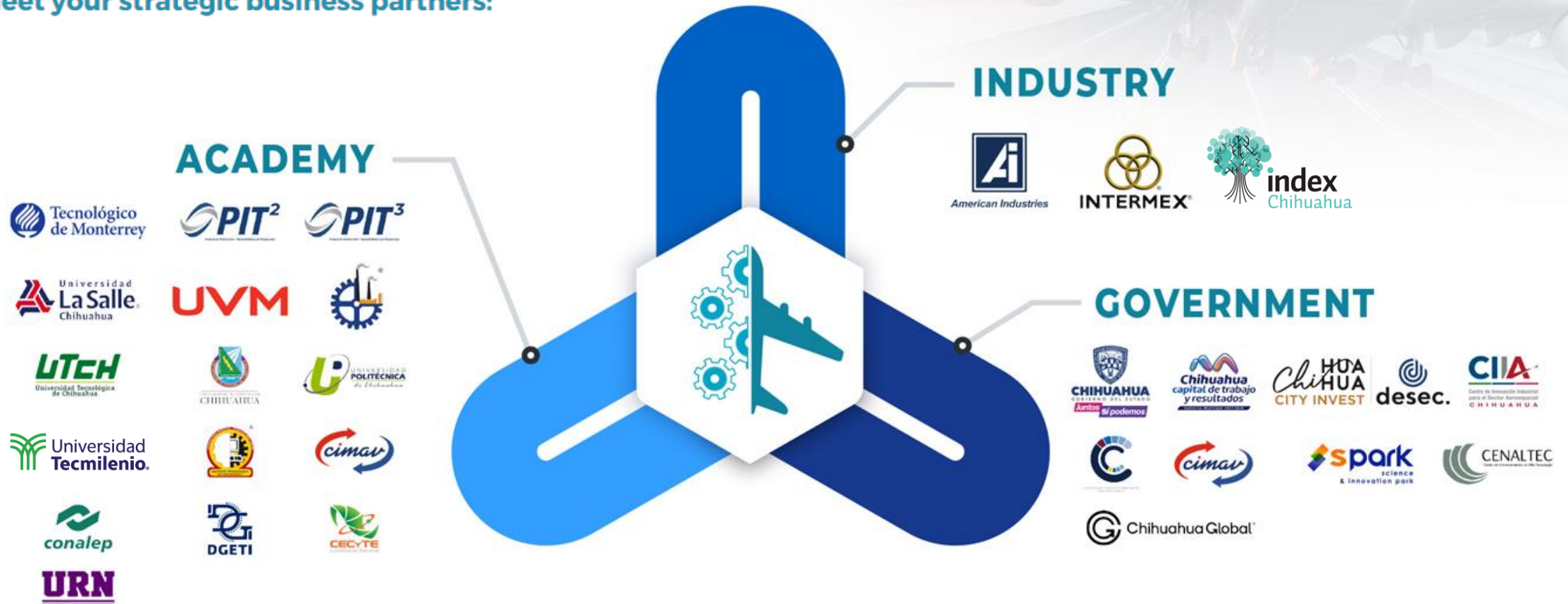


Chihuahua's AEROSPACE CLUSTER

Tripe Helix Model



Meet your strategic business partners:



Chihuahua's collaboration between private initiative, government and academia is one of a kind in the country.

CHIHUAHUA'S AEROSPACE INDUSTRY OVERVIEW



Aerospace cluster
With 5 OEM'S

+9 Universities with
Aerospace programs

+45 Certified
Suppliers

+ 5 Engineering &
Design Centers

+13,000
Employees

\$1.5 BUSD
Export per year

Aerospace

CAPABILITIES

in Chihuahua



**SLIDES AND
RAFTS**



HARNESSES



**AEROPARTS
AND SHEET
METAL**



**AERO
STRUCTURES**



MACHINING



**THERMAL
AND SURFACE
TREATMENTS**



COMPOSITES



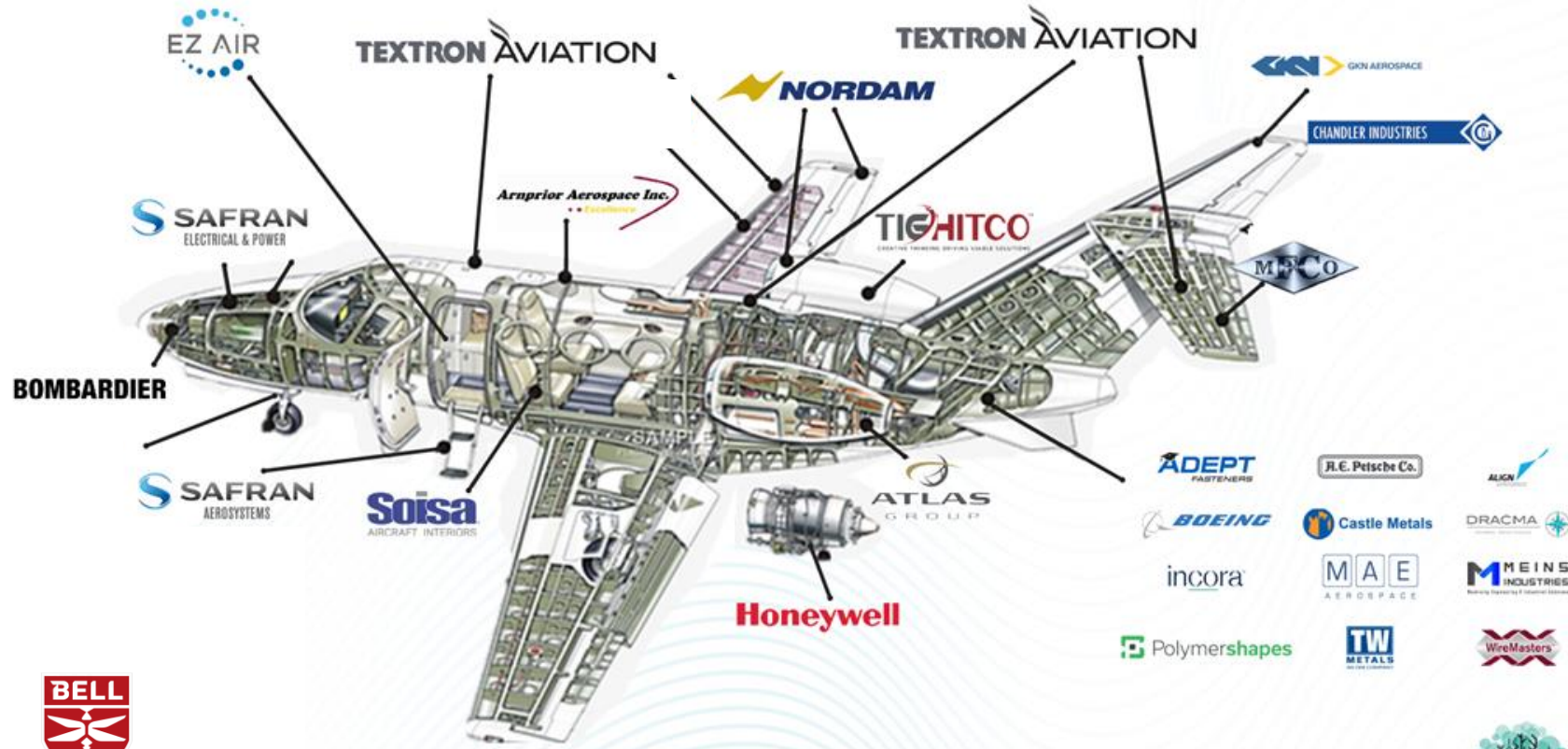
**AIRCRAFT
INTERIORS**

About the Chihuahua's AEROSPACE INDUSTRY



The Aerospace Industry

flying high in Chihuahua



Industry CAPABILITIES

OEM's



Leading manufacturer of helicopter original equipment. Within its main capabilities are: structural assembly using aluminum parts, composite parts, sheet metal and titanium crimping, soldering and electrical testing. Some of its products are: Bell 429, Bell 407 and Bell 412.



Honeywell
Aerospace

One of the most important turbine manufacturers for the commercial aviation. +1,100 CNC Machining centers. Leading engineering capabilities in Chihuahua such as: High Precision CNC machining, casting, forging, hipping and shot peening process. NADCAP Certified. Supplying to Boeing and other major OEM's



TEXTRON AVIATION

Operating in Chihuahua since 2006. Five plants: 2 for Beechcraft products and 3 for Cessna products.

1. Harnesses for Cessna.
3. Composites for Cessna.
4. Sheet Metal Assembly, fabrication and special processes for Cessna products.
- 6 & 7. Sheet Metal Assembly for Beechcraft products.



Industry CAPABILITIES

OEM's



Joint Venture of Embraer and Safran Aerospace, 100% of production in composite interiors for E1 & E2 models 190, 195, 170, 175.



BOMBARDIER

Bombardier Aerostructures Sheet metal and extrusion fabrication and assembly for Bombardier Canada and Mexico.



Industry CAPABILITIES

TIER 1S



1. Evacuation Systems
2. Seats
3. Electrical Components
4. Water and waste
5. Seat Shells
6. Lighting Solutions
7. Electrical & Power
8. Power Switches.

Supplying to Boeing, Airbus and other major OEM's.



Producing 99% of all the electrical wiring for the Boeing 787 "Dreamliner".
Producing 80% of all the electrical wiring for the Airbus A380, the Largest aircraft of the world with 550Km of wire.



Industry CAPABILITIES

TIER 1S



Safran Cabin is a company dedicated to manufacture aircraft cabin interiors, having business with different airlines and OEM's customers (e.g. Boeing , Airbus, Bombardier, etc) being the Number 1 in cabin liners, galleys, trolleys and containers.



Sheet Metal structural assembly, Composite structural assembly, Sealant application, painting, polishing, Electrical Wiring Installation and Engineering Services Supplying Airbus, Gulfstream, and Cessna.



Key products include: emergency flotation systems, landing gear components, tools and ground support equipment.



Industry CAPABILITIES

Sub Tiers



NADCAP Certified. Capabilities include:

Chem film, chromic anodize, boric-sulfuric anodize, sulfuric anodize, FPI, MPI, prime application, top coat and fuel tank application. Currently adding steel processing such as passivate, cad & zinc nickel.

Certifications: Boeing, Bell, Collins, Honeywell, Sikorsky, Safran, Bombardier, Cessna and other major OEM's.



Is a full sheet metal facility with hydroforming, heat treat and chemical processing capability. This facility provides a low-cost option for sheet metal components.

Supplying to Boeing, Bombardier, and other major EOM's.



Sheet Metal Fabrication (Metal punching, metal forming, metal shear), Machining (3 axis, routing, horizontal feed), Special process, assembly and inspection. Supplying to Boeing, Bombardier and other major OEM's.

Industry CAPABILITIES

Sub Tiers



Specialty capabilities in this facility include metal fabrication, 3 and 4-Axis machining, bench top assembly and wire harness assembly. Supplying to Boeing programs.



Manufacturing and assembly of composite structures for Roxwell Collins, Dassault.



Manufacturing processes: CNC turning and milling, 3 and 4 axis machining, lapping assembly. AS9100 Certified.

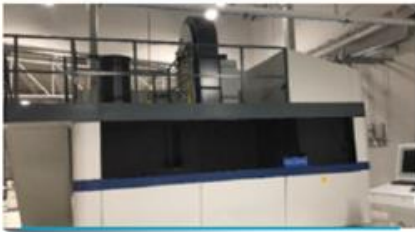


Industry

CAPABILITIES – LOCAL SME'S



Local Aerospace Company providing machining parts to major EOM's and Tier 1s including Spirit Aerospace and Honeywell.



Local SME Specializing in Controlled atmosphere Heat Treatment and now also offering Hot Isostatic Pressing, HT-MX has been servicing the national industry since 2012. Operating a certified NADCAP and AS9100 plant, HT-MX offers a variety of heat treatments including quench and temper, carburizing, carbonitriding, annealing, Precipitation Hardening, Aluminum heat treat, metallurgical lab services and now HIPing.



Local aerospace company established in 2015 in Chihuahua. Dedicated to high precision machining, design and development and metrology services. AS9100, ISO 9001, 14001 and 18000 Certified.



Local aerospace company established in 2005 in Chihuahua. Main areas of expertise: precision machining of complex components and assemblies, third party logistics provider, testing fixtures and precision machining manufacturing solutions. ISO 9001 Certified.



Industry

CAPABILITIES – LOCAL SME'S



Aerospace National SME designing interiors and supplying seats to leading OEM's (Boeing, Airbus and Bombardier) and more than 60 airlines around the world.



National SME supplying design and manufacture of high precision machining and engineering solutions. CNC, Milling, turning and welding shops. Research and Development and reverse engineering capabilities CMM Inspection with Scanner.

SUPPLY AND DISTRIBUTION



CERTIFICATIONS



EMPRESA	AS9100	NADCAP	ISO-9000	ASME	ISO-9001	ITAR	OTRO
ARNPRIOR AEROSPACE	🏆	🏆					
MAKINOVO	🏆				🏆		
*** HTMX							
TIGHTCO	🏆	🏆					
SAFRAN ELECTRICAL & POWER	🏆		🏆				
MEINS INDUSTRIES					🏆		
CASTLE METALS	🏆		🏆				
LISI AEROSPACE	🏆	🏆	🏆				
ADEPT FASTENERS	🏆						AS9120
GNK FOKKER	🏆						EESA PART 21G
ATLAS GROUP	🏆						
CHANDLER INDUSTRIES	🏆				🏆		
POLYMERSHAPES					🏆		
ALIGN AEROSPACE	🏆				🏆		AS9120, AC00-58B
CBQ TECHNOLOGIES	🏆				🏆		
INCORA							AS9120
INCORA FSL (Bodega)							AS9120
EZ AIR	🏆						
WIREMASTERS							Se trabaja en AS9100
DART AEROSPACE							
BOMBARDIER	🏆	🏆					
ALTASER AEROSPACE	🏆	🏆					
METAL FINISHING	🏆	🏆					
TW METALS	🏆		🏆	🏆			
SOISA AIRCRAFT INTERIORS	🏆				🏆		
HONEYWELL	🏆	🏆		🏆		🏆	
BELL	🏆						
BYC INDUSTRIAS	🏆				🏆		
TEXTRON AVIATION							
*** KAMAN	🏆				🏆		

- ✓ AS9100
- ✓ NADCAP
- ✓ AS9120
- ✓ ISO 9000
- ✓ ISO 9001



EDUCATION & SPECIALIZED TRAINING



High Technology Training Center

Programs:

- Electrical wiring
- Sheet metal assemblies
- NDT testing of aircraft assemblies
- Aerospace metals and alloys
- AS9100
- AutoCAD, CATIA V5, Mastercam, NX, Solid works
- Desing
- CNC machining and turning (3, 4 and 5 axis)

**CENALTEC DEVELOPS
- TAILOR MADE SPECIALIZATION TRAINING PROGRAMS -
ACCORDING TO YOUR COMPANY NEEDS**

Chihuahua:

AEROSPACE CITY OF THE FUTURE

Financial Times recognizes Chihuahua

as an aerospace city of the future 2021/22



CHIHUAHUA

TOP 10

MID-SIZED AMERICAS
CITIES OF THE FUTURE
2021/22 COST EFFECTIVENESS



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fDi

AEROSPACE CITIES
OF THE FUTURE 2018/19

BEST COST-EFFECTIVENESS
TOP 10

CHIHUAHUA



fDi

AEROSPACE CITIES
OF THE FUTURE 2018/19

BEST FDI STRATEGY
TOP 5

CHIHUAHUA





Chihuahua's
AEROSPACE
CLUSTER

Contact us for a free business agenda and city industrial tours.

Luis M. Azua

PRESIDENT

lazua@bellflight.com

Michelle Miledi

CLUSTER MANAGER

mmiledi@indexchihuahua.org.mx

Thank you



INDEX CHIHUAHUA

Av. William Shakespeare No. 157. Complejo Industrial Chihuahua.



+52 (614) 442 – 8450 Ext. 236

+52 (614) 394 – 7348



<https://aeroclusterchihuahua.com>



index
Chihuahua

Asociación de Maquiladoras y Exportadoras de Chihuahua, A.C.