



Sector Opportunities in Mexico:
Aviation
Manned + Unmanned Aircraft

1. Market Landscape + Trends
2. Market Players
3. Market Entry



Market landscape + trends



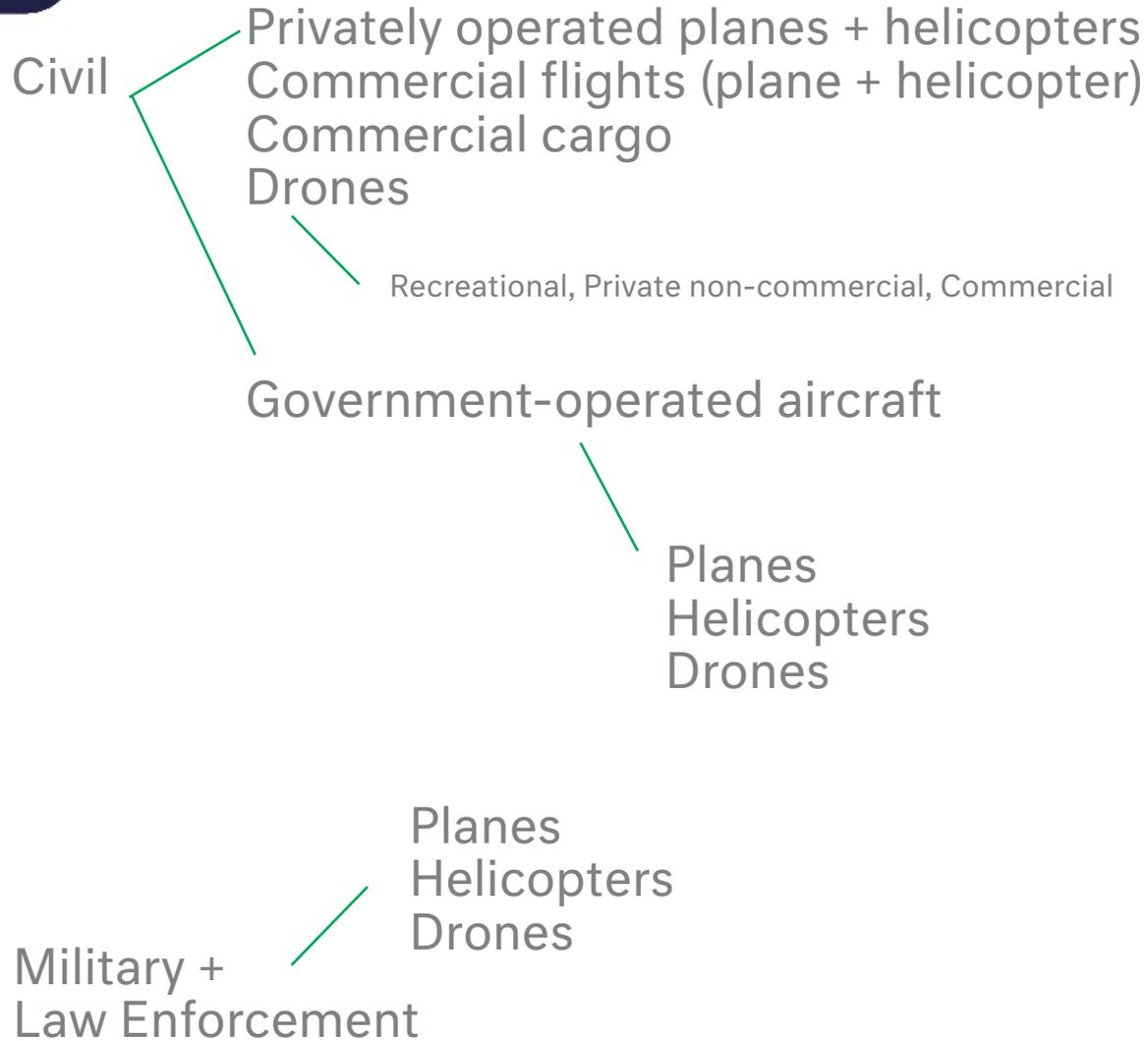
Mexico in relative terms

- 10th largest country globally
 - 125 million people
 - 40% the population of USA
- 11th largest economy
 - Between France + Korea in total market size (PPP)
- Shares with the USA:
 - Economic region (USMCA) + supply chains
 - Conjoined airspace
 - Connected highways, power grid, pipelines, telecom
 - Intense border cooperation for trade + travel
 - Intense cooperation on regional security
 - Plus interconnected political + family histories
 - Mexico has 50 consultates in the United States
 - Language: US is the 2nd-largest Spanish-speaking population in the world after Mexico; meanwhile, aviation united by English

Sources:
en.wikipedia.org/wiki/List_of_countries_and_dependencies_by_population
[en.wikipedia.org/wiki/List_of_countries_by_GDP_\(PPP\)](https://en.wikipedia.org/wiki/List_of_countries_by_GDP_(PPP))

2 Image source: slideplayer.com/slide/14143902/

Aircraft generating demand for Virginia services + products in Mexico



MRO shops



Civil aviation

- **9,122** registered aircraft
- **77** airports
- **1,471** aerodromes
- **536** heliports
- Mexico, **2nd globally in general aviation**, after US
 - 300 entities with registered GA planes
 - Experienced significant growth since 2008
- **Aerolíneas Ejecutivas** largest GA operator: 32 aircraft
 - Reports 15% increase in clients because of pandemic; similar to report by Transportes Aereos Pegaso
 - 2,700 USD average cost per flight-hour for its smallest planes has reduced by half due to demand
- **Best-selling private jets**: Kinnear Learjet, Citation (Cessnas), Hawker, Beechjet, Grumman and Gulfstream
- **Toluca Airport**, located in Mexico State beyond the Santa Fe business district from Mexico City, is the busiest GA hub



Helicopters

960 registered civil helicopters active over Mexican airspace



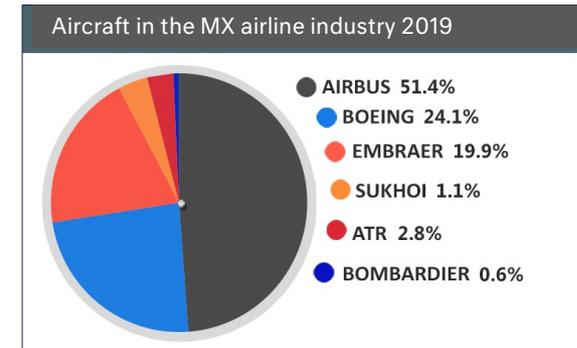
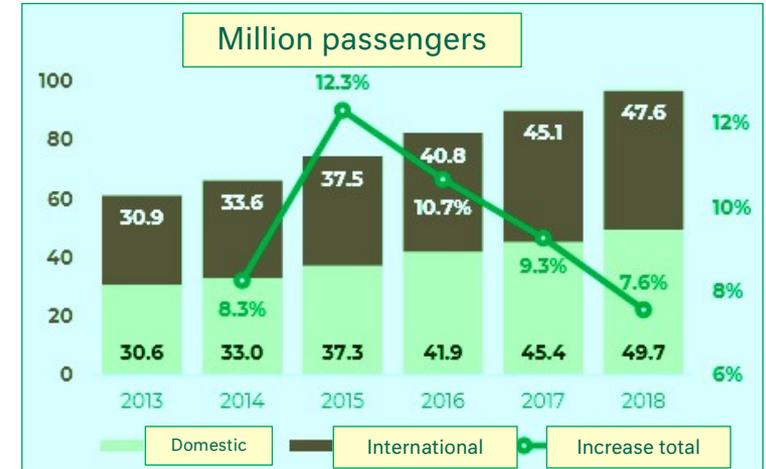
States most active in helicopter traffic

- 1) Mexico City
 - 2) Mexico State
 - 3) Campeche
 - 4) Tabasco
 - 5) Tamaulipas
 - 6) Veracruz
 - 7) Nuevo León
 - 8) Jalisco
- Metro area, population 23 million+; 2nd-most private helicopters in the world after Sao Paulo
- The Gulf of Mexico is an important offshore oil region
- States home to major cities of Monterrey and Guadalajara, respectively, and important jumping off points for remote industrial activities like mining



Commercial airlines

- 3% of Mexico's GDP
 - In relative importance to the national economy, similar to the industry in the US (also about 3%)
- 352 scheduled service planes
 - average age 9 yrs
 - 15 concessioned operators
- Average growth in passengers carried before pandemic was 9-10% per year (since 2013)
 - In 2018, 97.3 million passengers
 - National average of annual trips per person 0.4 vs 2.5 in US
- High connectivity
 - Mexico City and Cancun most connected airports in LATAM
 - Half of passengers are international
 - 7 of top 10 international routes to US cities (2018)



Mexico City International Airport



In the control tower of AICM, operated by [SENEAM](#) (photo from Wikimedia)

- 1) Mexico's busiest airport, Benito Juárez Mexico City International Airport (AICM), has operated at or **above capacity for at least a decade**
- 2) AICM congestion **throttles air traffic for the entire country**
 - Keeps airfare high compared to the US
 - Limited slots for international connections
 - Consistently delays flights in other cities
- 3) **No room** to add a 3rd runway at AICM
- 4) After the politically motivated termination of a previous effort in Texcoco, Mexico State, the **“new AICM” is being built** at the soon-to-be-former Santa Lucia Air Force Base, also in Mexico State
 - Carriers still reeling from the Texcoco disruption, disputing slot + int'l connection configurations
- 5) **National airspace redesign**
 - Nearby airports Queretaro, Toluca, and the “old” AICM may all have interesting opportunities to play different roles than in the past
 - Other airports like Tijuana and Tamaulipas at the US border also open to opportunities, especially with freight
 - Improved capacity for Mexico City as a hub for international connections by foreign carriers



Cargo

Top airports for freight in 2019:

- 1) Mexico City
- 2) Guadalajara
- 3) Queretaro
- 4) Monterrey



Cargo in 2018

- 740k tonnes international (82%)
 - 1 in 8 tonnes of international cargo = to or from Los Angeles
- 170k tonnes (18%) domestic
 - 1 in 8 tonnes of domestic cargo = between Mexico City + GDL

In 2019

- Domestic cargo traffic rose 4%
- International followed global tendencies dropping 6%

Mexican government [list of AVSEC approved](#) freight carriers

US, European, + Asian cargo carriers evenly dominate half the market.

Queretaro, 2-3 hours west of Mexico City, and Nuevo Laredo, at the Texas border, are both looking to increase their cargo activity during national airspace rebalancing that has been in the works.



Drones

- Mexico has 5% of the world drone market
- Chinese company DJI supplies 85% of civilian drones in Mexico
- In 2019, 2,140 drones newly registered
- For 2020 nearly 6,000 more were expected
- **USMCA expected to be global region with most drone demand** (stemming from renewable energy installations)

Confirmed use of drones in Mexico

- Agriculture
- Fishing + livestock
- Surveillance + public / private security
- Infrastructure + construction, especially energy
- Oil + gas / mining
- Entertainment
- Aerial photography + mapping
- Humanitarian aid
- Fumigation
- Application of disinfecting liquids in public spaces
- Traffic control
- Tourism



Mexican drones: USTI (above) + Hydra Technologies (below)



Maintenance, repair + overhaul

- 308 currently active aeronautical workshops in Mexico, list maintained [here](#) (518 total)
 - Details of each workshop's approved capabilities can be reviewed [here](#)

Mexicana MRO

For a while the largest shop in Mexico, the last holdout of the defunct international passenger carrier Mexicana has sought since 2017 to stabilize its MRO operations for an eventual sale. Roberto Kriete, a major shareholder in Avianca, made an offer to buy it in January 2020.

Notable MRO centers

- Delta-Aeromexico aka [TechOps MX](#)
- [Airbus Helicopters](#)
- [Aeromar](#)
- [Avemex](#)
- [Ale Service Center](#)



Important players

- Government
- Operators
- Highly visible suppliers
- Associations + networking

Government regulators

- Secretariat of Foreign Relations

- In 2011 with Mexican congress effected Mexico's entry into the [Wassenaar Arrangement](#)
- In 2017 with Mexican congress, authorized increase in foreign ownership of air services companies from 25% to 49%



SRE
SECRETARÍA DE
RELACIONES
EXTERIORES

- Agencia Federal de Aviación Civil (AFAC)
 - In 2020 replaced the DGAC as the main civil aviation regulator
 - Pertains to the Secretariat of Communications and Transport
- Guidance set / enforced by AFAC
 - [Ley de Aviación Civil](#) (last updated 2018)
 - [US-Mexico 2015 open skies agreement](#)
- Drones must be registered with AFAC
 - Flight Rules for Drones in Mexico: CO AV-23/10 R4 entered into force as [NOM 107](#), Jan 2020
 - Restricts the operation of UAVs with foreign registration and operation of MX UAVs by foreigners in Mexico



Government operators

SADER

SECRETARÍA DE AGRICULTURA
Y DESARROLLO RURAL



SIAP

SERVICIO DE INFORMACIÓN
AGROALIMENTARIA Y PESQUERA



- Civilian federal gov operators

- Tend to be autonomous organizations
- Focused on environment + resources

- Civilian agencies with planes / fleets:

- Agriculture and information bureaus
- Geological service
- Environmental protection
- Federally operated electrical grid

- Military + law enforcement

- Please see separate report addressing these clients
- Strong focus on surveillance, interdiction, borders

- The Mexican Space Agency

- Satellite program for various civilian and military applications
- Mexican satellite production cooperates closely with AEM

- State police + civilian agencies also have planes



SEGURIDAD

SECRETARÍA DE SEGURIDAD
Y PROTECCIÓN CIUDADANA



AEM

AGENCIA ESPECIAL MEXICANA



Scheduled operators

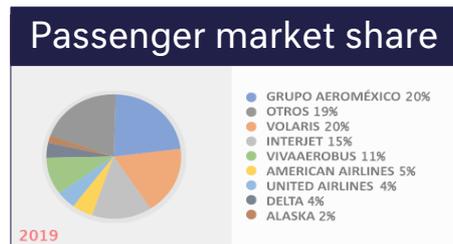
Cargo concessions

- Aerounion
- Estafeta
- Mas Air

Domestic cargo carriage	2020 tonnes	% Share
Aeronaves TSM	14,659.4	6.4%
Grupo Aeroméxico	31,991.4	14.0%
MCS Aerocarga de México	7,887.9	3.4%
Estafeta	6,817.7	3.0%
Volaris	5,019.0	2.2%
Interjet	6,459.0	2.8%
Mas Air	17,802.0	7.8%
Aerounión	18,443.2	8.0%
Viva Aerobus	367.3	0.2%
Otras	153.2	0.1%
Total Mexicanas	109,599.9	47.8%

Passenger carrier concessions

- Volaris
- Aeromexico + AM Connect
- Interjet
- Vivaaerobus
- Aeromar
- Magnicharters
- Calafia
- TAR Aerolineas
- Valid concessions, no longer operating
 - Aviacsa
 - Mexicana, Mexicana Link, Mexicana Click



Top nonscheduled operators

Aerolíneas Ejecutivas www.aerolineasejecutivas.com	Avemex www.avemex.com.mx	
Aerolíneas Marcos www.aerolineasmarcos.com.mx	Corporación Aeroángeles (Grupo Empresarial Ángeles) www.grupoempresarialangeles.com	
Transporte Ejecutivo Aéreo www.teasa.org.mx	Grupo Lomex (Aeroservicios Especializados, www.grupolomex.com.mx www.asesa.com.mx	Heliamérica, Transpaís Aéreo, AeroVant) www.transpaisaereo.com www.aerovant.com
Aerovics (Grupo Bal) www.aerovics.com.mx	Grupo Pegaso (Aeromundo Ejecutivo, Transportes Aéreos Pegaso) www.aeromundo.com.mx www.transportes-pegaso.com	
Servicios Aereos Regiomontanos (FEMSA) www.femsa.com.mx	Aeroservicios Tecnicos Regiomontanos www.asertecfbo.com	



Drone producers + services



Company websites linked to logos



Select drone vendors



La Casa del Dron



(Rental, project design, training)



Examples of their customers



Associations + networking



- FEMIA ties together the whole aerospace industry but it's most interested in manufacturing (aircraft, satellites)

www.femia.com.mx



- National Air Transportation Chamber: carriers and operators

www.canaero.org.mx



- Biannual show for military aviation, defense, and aerospace manufacturing organized by the Mexican Air Force.

April 21-24, 2021 in at the Queretaro International Airport. Includes an airshow on the Saturday that is open to the general public (Tuesday-Friday is business only).

- The United States is the guest country for this edition.

www.f-airmexico.com.mx



- The main private/general aviation event and much smaller than FAMEX, taking place at the Toluca airport every March

www.aeroexpo.mx



Drone events

- Tend to center around R&D + enthusiast communities
- To reach these communities, an easy route is to engage online
- For example, searching “drones Mexico” on Facebook yields:
 - Two different “Drones Mexico” groups, one with [34k members](#) and another with [10k members](#)
 - July 28, 2020 the agricultural training organization Intagri held a workshop on the [Use of Drones in Agriculture](#) with 748 people registering intention to participate
 - [FPV Racing Mexico chapter](#) posts information about events



- Expo Seguridad includes more drones every year
- www.exposeguridadmexico.com
- April 13-15, 2021
- Famex also features drones



Mexico market entry

Validate the market

- Confirm that demand exists for what you offer

Measure + project the market

- How much return on investment should you expect from Mexico market entry?

Every exporter will find its own way to blend direct support from home with local support in Mexico.

Mexico market SWOT

Strengths

- Closeness to the United States (MRO, Drones)
- USMCA, other Mexico agreements with your partner countries (e.g. Europe, CP-TPP countries, Israel)
- Bilateral agreement on air transport between Mexico and the United States (Aug 2016)
- Wassenaar Arrangement allows easier US-MX cooperation on the production of strategic defense and security equipment locally
- High population of engineers

Opportunities

- Low clarity on technological access / development from within Mexico means integrators must look internationally
- Burgeoning industry of drones as service providers
- Aircraft replacement and purchasing program of the SEDENA and SEMAR
- Avionics and components for aircraft and drone apps, software
- Pandemic increasing the use of drones and private aircraft
- Construction of a new national flagship airport

Weaknesses

- Covid and other financial setbacks including a slow-down in Mexican Air Force spending
- Current saturation at CDMX International Airport, interruption and prolongation of NAICM project
- The legal regulations established for the use of drones can hinder the growth of the market
- Sales efforts can be costlier and slower to bear fruit than in the US
- Demand normally has to reach “must have” (as opposed to “nice to have”) for sales to be successful

Threats

- Government restrictions on foreign-registered/operated drones and aircraft
- IATA estimates that it will take Latin American airlines up to three years to recover the flight and passenger levels they had before the COVID-19 crisis.
- Chinese competition on drones; Israel, France, Russia, UK, Spain competition in aircraft
- Insufficient follow-up kills deals and renders prior efforts wasted: communication and presence with partners and customers must be robust

Note on foreign competitors:

Whereas European and Asian companies have bona fide sales offices in Mexico—the practical imperative for them to do so is much more obvious— US companies commonly try to run Mexico sales development from home or through weak local alliances. We also see many hoping to turn the US Embassy’s market access services into BD proxies, which for Mexico is against US policy. We have conferred with the State Department, Department of Commerce, and DOD on this matter repeatedly. We all agree the competition from locally established foreign companies is normally too stiff for US co’s to sell to Mexico customers without at least a well-vested local partner relationship.



From minimum to max investment

Products

E-commerce w/ local logistics, local(ized) customer service, marketing

Distributor with US-based MX manager

Distributor with local country manager

Wholesaler to distributors / distributors, country mgr

Establish direct operations



Project developers + integrators

Re-sellers



Services

Localized remote service (e.g. SaaS), marketing

Licensed local providers with US supervision + involved sales manager

Licensed local service providers, local sales + service managers

Master licensees with networks of service providers / with local country manager

Establish direct operations



Contributions in a partnership

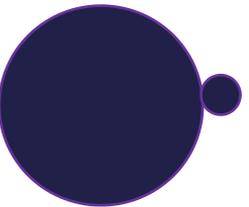
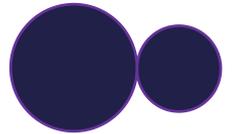
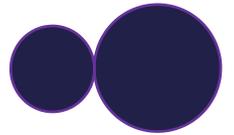
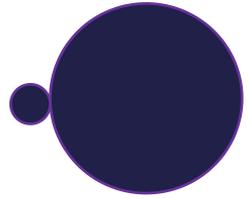
Your partners take care of customers

1. Financing customer payment terms
2. Local fiscal processes
3. Logistics across border + within Mexico
4. Market intelligence
5. Existing relationships
6. Sales initiation + closure
7. Adding value to deliverable
8. Customer feedback
9. Pricing elasticity judgment
10. Making good on product + service guarantees



You take care of the product /service

1. Marketing
2. Know-how on your value proposition
3. Best practices on delivery + integration
4. Direction + incentive
5. Support on sales + business case alignment
6. Ownership of, responsibility for permissions + IP
7. Logistics to border
8. Financing anything that remains yours absent a sale



Final thoughts

- It takes a concerted sales + marketing plan to successfully enter in Mexico
 - Well-informed: really digest + try to get to know Mexico, or hire someone in charge of knowing it
 - Funded by company resources, NOT an advance on anticipated Mexico sales
 - Flexible
 - With metrics
 - Follow + continually update the plan
- Mexico sales, like all international sales, are an investment
 - Have expectations for ROI: source, timing + amount
 - Look for how to eliminate, decrease or mitigate against risk + volatility
- Good relationships are fundamentally necessary
 - What do you offer that locals don't?
 - What do locals offer that you don't?
 - Create “win-win-wins” for partners + customers
 - Communicate well + often
- VEDP's next Mexico Trade Mission is based in Queretaro
 - April 19-23, 2021, the week of Mexico's FAMEX trade show, also in Queretaro
 - Register for the mission [here](#)



NEIGHBORS

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VEDP

**International
Trade**
ExportVirginia.org

Thank you

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