



SCT

SECRETARÍA DE
COMUNICACIONES
Y TRANSPORTES

AEM

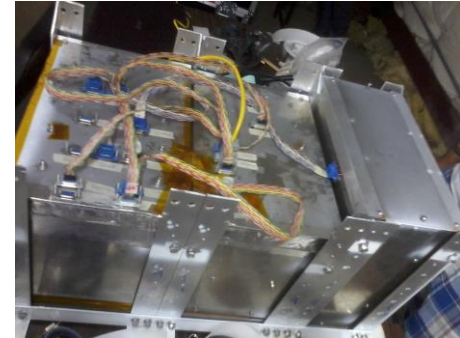
AGENCIA ESPACIAL
MEXICANA

Mexican Space Program

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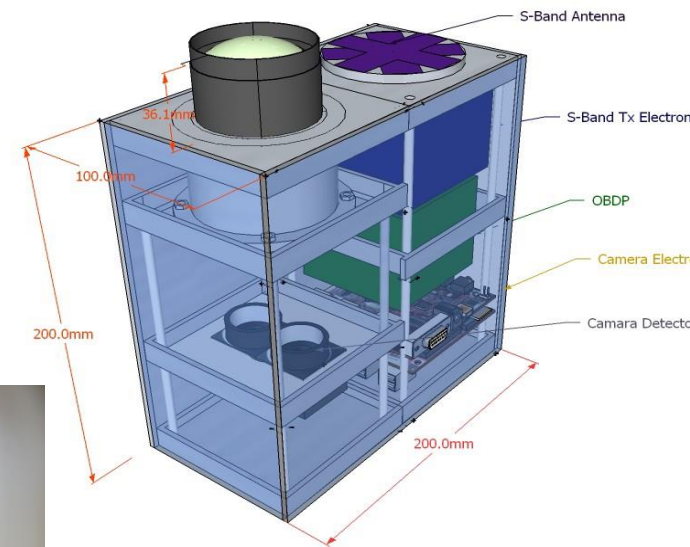
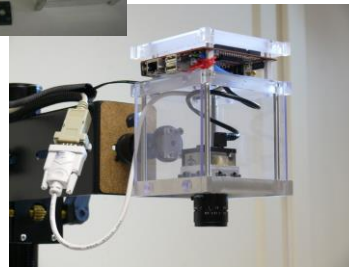
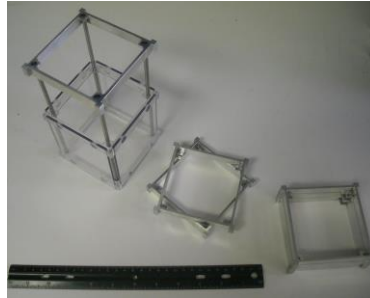
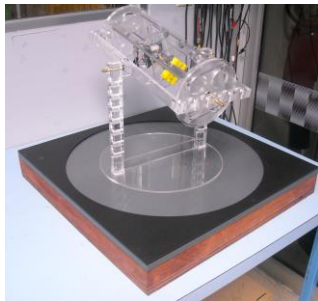
Mexican Space Sciences

- Astronomy, Astrophysics, Geophysics
- Space Communications
- Earth Observation
- Ocean Sciences
- Earth Sciences
- Atmospheric Sciences
- Natural Disaster Management



Small Satellites

- CANSAT - JAXA
- Cubesats - NASA-AMES, HUMSAT...
- Microsatélites – MAI...



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Human Capital

- NASAAMES – SJSU
- ISEB
- IAA-STEM
- Training the trainers (UNISEC)



Space Infraestructure Framework

- a) in the National Development Plan
- b) in the National Infrastructure Plan

Space infrastructure is the backbone that supports and connects satellite space systems for national security applications, disaster management and early warning, connectivity, social benefits, environmental sustainability and scientific and technological research

AEM in Mexico Government Axes

Government Axis	AEM Strategy
1. Mexico in peace	Space infrastructure for satellite communications and earth observation for protection of population
2. Mexico inclusive	Satellite communications for social programs and digital inclusion and reduction of digital divide
3. Mexico with quality education	Education via satellite Human capital in space sector Inspirational aspect of space
4. Mexico prosperous	Industrial development in space sector for increased competitiveness
5. Mexico with global responsibility	Space infrastructure for natural disaster management Monitoring climatic change from space International Alliances

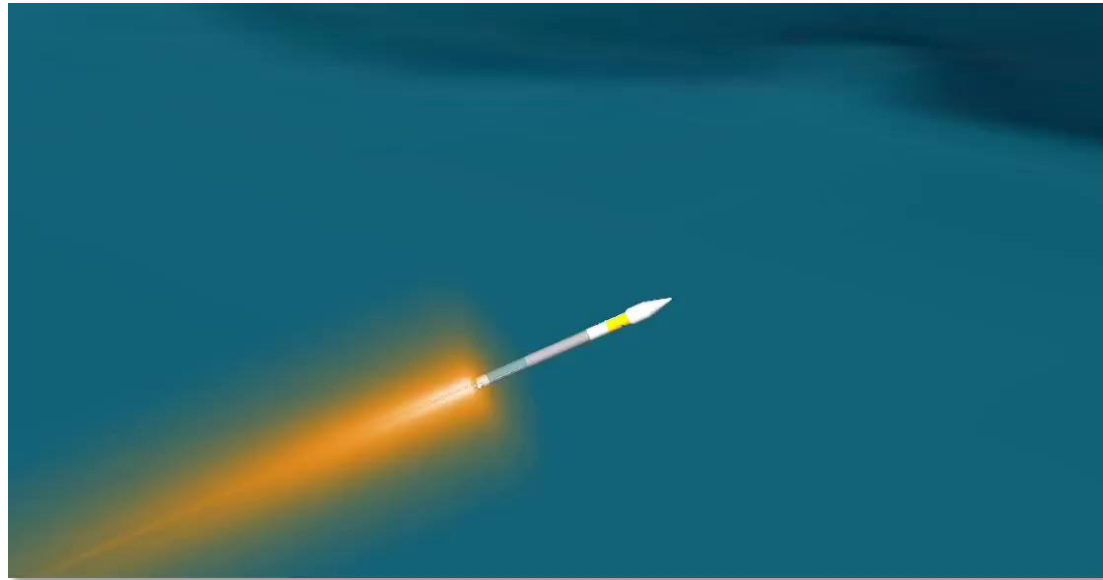
Mexican National Development Plan (PND)

- Space based early warning system for prevention, mitigation and rapid response to natural disasters (action item no.4.5.1.11 of PND)
- Broad band infrastructure with new communication satellite technologies for mexican capacity building. (action item no. 4.5.12 of PND)
- Space system based in satellite global navigation for modernization of transportation (action item no. 4.5.1.13 of PND)

National Infrastructure Plan (PNI)

“Infrastructure for space access and strengthen capacities for an early warning system for natural disasters”

“National sovereignty with the construction of launching platforms that reduce the cost of access of Mexico to space”



Priorities for the AEM

Help to solve national problems and needs

- Using the capabilities that offer the space

Jobs creation

- Using the capabilities that offer the space

MEXICAN SPACE PROGRAM

**1 SPACE
INFRASTRUCTURE**

**2 SPACE SECTOR
DEVELOPMENT**

3 CAPACITY BUILDING

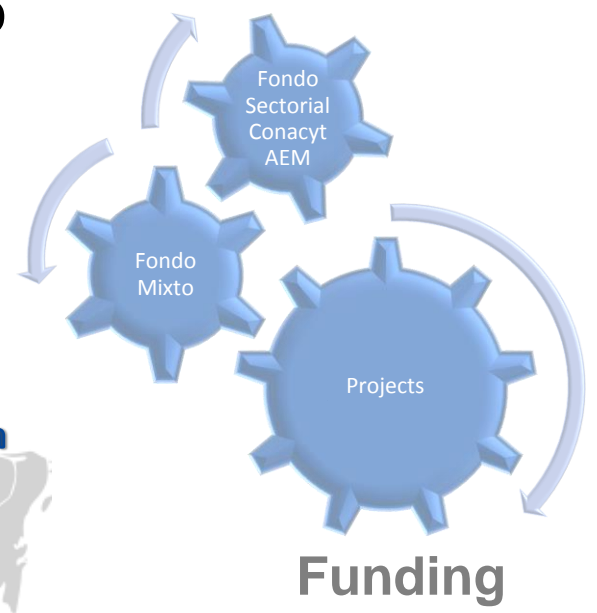
**4 INTERNATIONAL
POSITIONING**

Two nationwide projects

- **A Satellite Based Early Warning System for natural disaster prevention, mitigation and management**
- **Building capacities for communications satellites and for scientific platforms**

Regional Centers and Funding

2015 - Inauguration of the Telecommunications R&D Center by the Autonomous University of Zacatecas

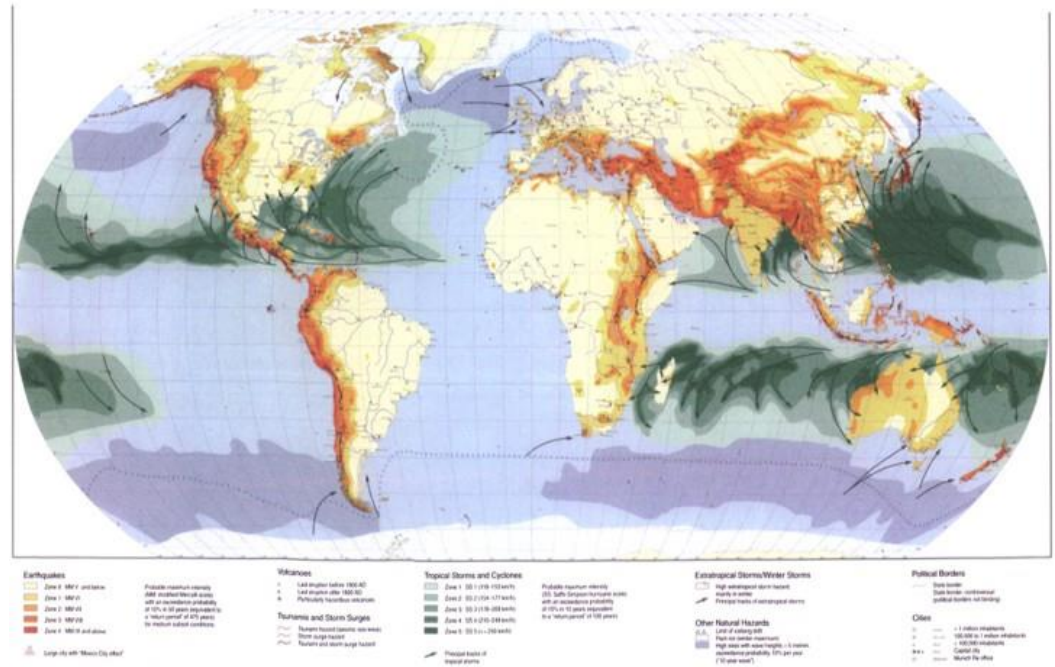


Space Applications

- **Promoting space applications at different levels of the public administration**
- **Recent efforts by the AEM:**
 - Development of a Working Plan for a new VMS for fisheries resource management and control, introducing remote sensing aids
 - Case of study for the application of Precision Agriculture in Mexico
 - UN-SPIDER collaboration, flood management with remote sensing
 - Studies of the application of GNSS technologies for ground and aerial transportation in the country.

Global Challenges

- Environment
- Global change
- Digital Divide
- Security
- Cybersecurity
- Disasters
- Space Debris
- Space Weather

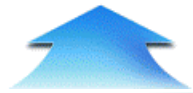


Local Challenges

- Increase public funding
- Increase participation of Mexican industry in R&D operations
- Foster interaction between academic researchers and industry
- Tackle global challenges

Vision 2030

Mexico makes significant contributions to space S&T



Industrial development and competitiveness



Science and technology development



Human capital development in the space field

Planning And Funding

International Affairs and Security

Space Sustainability Actions

- **Mexican Space Weather Service**
 - Beginning of operations 2014
 - National Autonomous University of Mexico (UNAM)
 - Application for ISES in 2015
 - Funding provided by AEM
 - <http://www.sciesmex.unam.mx/>
- **Space Debris Protocol**
 - Aim: Public Policy
 - Application in future Mexican Missions
- **Conformation of Local Expert Groups**
 - Based on the COPUOS LTS WG

UN Activities

- **COPUOS**
 - Long Term Sustainability of Space
 - Co-Chair Expert Group A
 - Legal and Technical Subcommittee
- **UN-Mexico BSTI Workshop**
- UN-Spider



GeoSpatial Information Week on November 2015, Mexico City



El Consejo Aeroespacial de Jalisco (CAJ)
En colaboración con la
Agencia Espacial Mexicana (AEM)
Así como con:
El Instituto de Ingenieros en Electricidad y Electrónica, (IEEE) Sección Guadalajara

Organizan el

Congreso Internacional de Ingeniería Aeroespacial CIJA JAL 2015

Con la Temática:

**“Transferencia tecnológica espacial aplicada a
Emprendedores y MIPYMES”**



IAF

- IAC 2016





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Thank you!

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