



The UAE Space Program



By: Dr Eng. Mohamed Al Ahbabi Director General – UAE Space Agency

The UAE Space Sector



UAE has a strong existing Space Sector with:

\$5 Billion worth of space investment with around 10% growth.

- 4 major actors: UAE Space Agency, YahSat, Thuraya and Mohamed Bin Rashid Space Center
- 6 satellites on orbit (2 FSS ComSat, 2 MSS ComSat 2 remote sensing)
- 4 more satellites in projects (ComSat and Remote Sensing)
- First Arab/Islamic planetary mission (Mars mission "The Hope")
- 4 Space Research Center (8 CubeSats with Academia)
- Around 60 Space stakeholders (Government, Industry, Academia)
- UAE is Regional Space Hub: Space services & technologies, education and events

The UAE Space Journey

From Dream to Reality!









The Journey started mid 70's: education, satellites programs, space agency, mission to Mars more to come.

UAE SPACE AGENCY



Establish Aug 2014, First SA in the region:

Vision

To proudly craft the future of the United Arab Emirates as a leader in space and inspire our future generations for the benefit of the nation and humankind

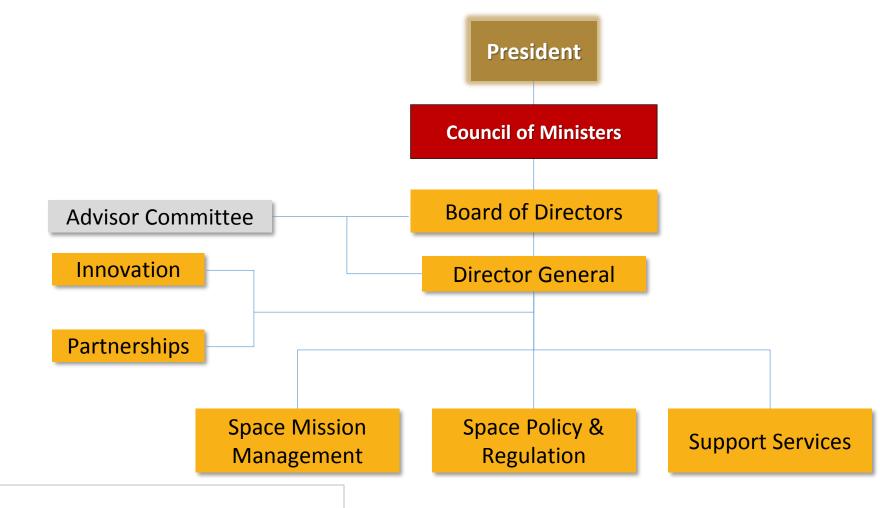
UAE SA Primary Objectives:

- Regulate the Space Sector (Space Policy, Strategy, Law and regulations)
- **Support** and oversee current space projects (including the Mars Mission)
- **Develop** UAE Human Capital for the Space Sector
- **Set-up** National and International Partnerships
- Improve Space Awareness (outreach)

UAE Space Agency Organization



- Light Space Agency
- > < 50 Professional People
- > Focus on efficiency
- > Value partnerships



Advisory Committee:

Nine Int. space experts meets twice a year to provide advise to the SA.

Policy/Regulations



- UAE has signed 3 Space related UN treaties that shape the UAE legal framework for Space, (Rescue Agreement is under process).
 - Outer Space Treaty
 - Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies
 - Liability Convention
 - Convention on International Liability for Damage Caused by Space Objects
 - Registration Convention
 - · Convention on Registration of Objects Launched into Outer Space
- UAE Space Agency is proposing to UAE government:
 - A UAE National Space Policy
 - A UAE Space Law and Regulations
 - A UAE Space Strategy (10 years plan)

UAE Mars Mission "HOPE"



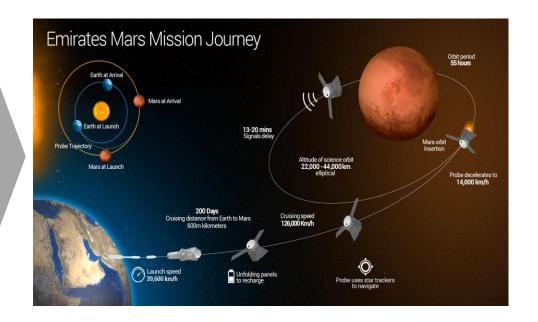
Main Objectives:

- > Inspiring young people
- > Building knowledge / space sceince
- Unifying Efforts (Common Goal)

UAE Mars Mission

- Mars Orbiter
- Unique Significant Mission
- UAE SA Funding & Oversight
- Project subcontracted to MBRSC
- Local & Int. Cooperation

- > Promote Int. Cooperation
- Position UAE in the global space map
- > Global contribution to humanity



2015

2016 - 2017

2018

2019

2020

2021 - 2024

Defining Science
Objectives

Designing Spacecraft

Manufacturing

Assembly & Test

Launch & Trip to Mars

Arrival & in Mars Orbit Observations

International Cooperation



- The Space Agency Strongly Believes in Space Cooperation:
 - Implementing UN Space treaties
 - A member of (COPUOS) / Participate in CoC
 - Representing the region in Int. level
 - A member of ISECG, GEO, The Charter, IPDA, IAF























Looking forward: New Space

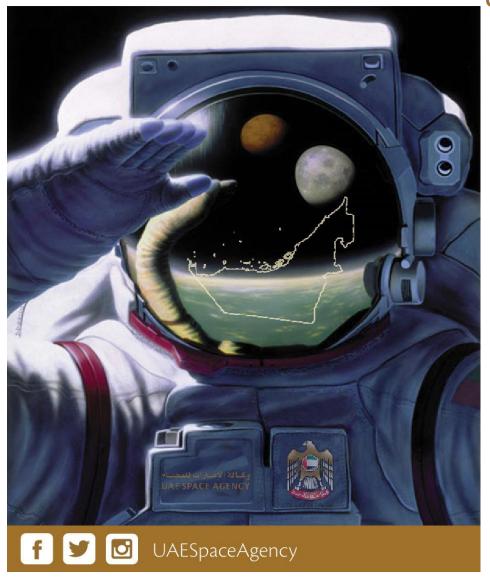


The UAE Space Agency is preparing the space sector for:

- Emerging space trends (Small satellites)
- Commercial Space (private companies)
- Human space flights (Suborbital flights)
- Resources from outer space (asteroid mining)
- New space technologies (3D printing..)



Thank you



The United Arab Emirates (UAE)







Became a federation in 1971

Federation of seven Emirates

GDP ~\$384 B (USD)

Second largest Arab economy

Worlds seventh largest in the oil reserve

Diversified smart economy

Regional leader in world indicators

Connectivity

World #1 on roads eqt
World #3 on ports
World #2 on air transport

Demography

UAE is home to people from more than 150 nationalities

Education

There are more than 50 accredited universities in the UAE

Technology

Leading the region in smart and mobile government







UAE: Openness, tolerance, role model and global citizen.