

The UAE's Space activities



مؤسسة الإمارات للعلوم
والتقنية المتقدمة
EIAST



Space Activities in the UAE

Late 1990's:

- Thuraya Series of Satellites:
 - Thuraya Satellite Telecommunications company has launched three satellite so far.
 - Commercial company dedicated to mobile satellite communications.

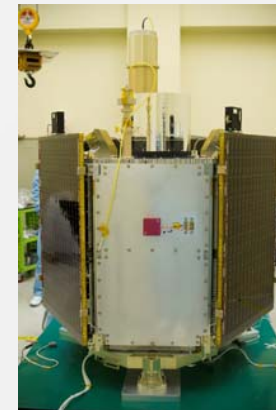
2000's:

- EIAST:
 - Establishment of EIAST and start of DubaiSat-1 and 2 projects.
 - The UAE's first governmental and remote sensing satellites.
 - Goals to develop manpower and their skills.
- Al Yah Sat:
 - Highly advanced communication satellite with dual military and civilian commercial capabilities to be launched in 2010.



Introduction to EIAST and its Objectives

- The proper positioning of The UAE in the field of advanced science and technology.
- Promote the culture of advanced scientific research in the UAE and the region.
- Create an internationally competitive base for human skills development.
- Strengthen international collaborative links and establish joint projects with industry and research organisations.



EIAST Programmes

- Space Programme:
 - DubaiSat-1 (First UAE EO Satellite), DubaiSat-2.
 - Ground Stations.
 - International Cooperation.
 - Joint programmes.
 - Technology Transfer.

- Water, Energy and Environment Programme:
 - Renewable Energy, solar power, wind power.
 - Environmental, analytical and chemistry labs.
 - Nano-technology.

- National Telescope Project:
 - The first telescope is the UAE.



EIAST's Space Programme

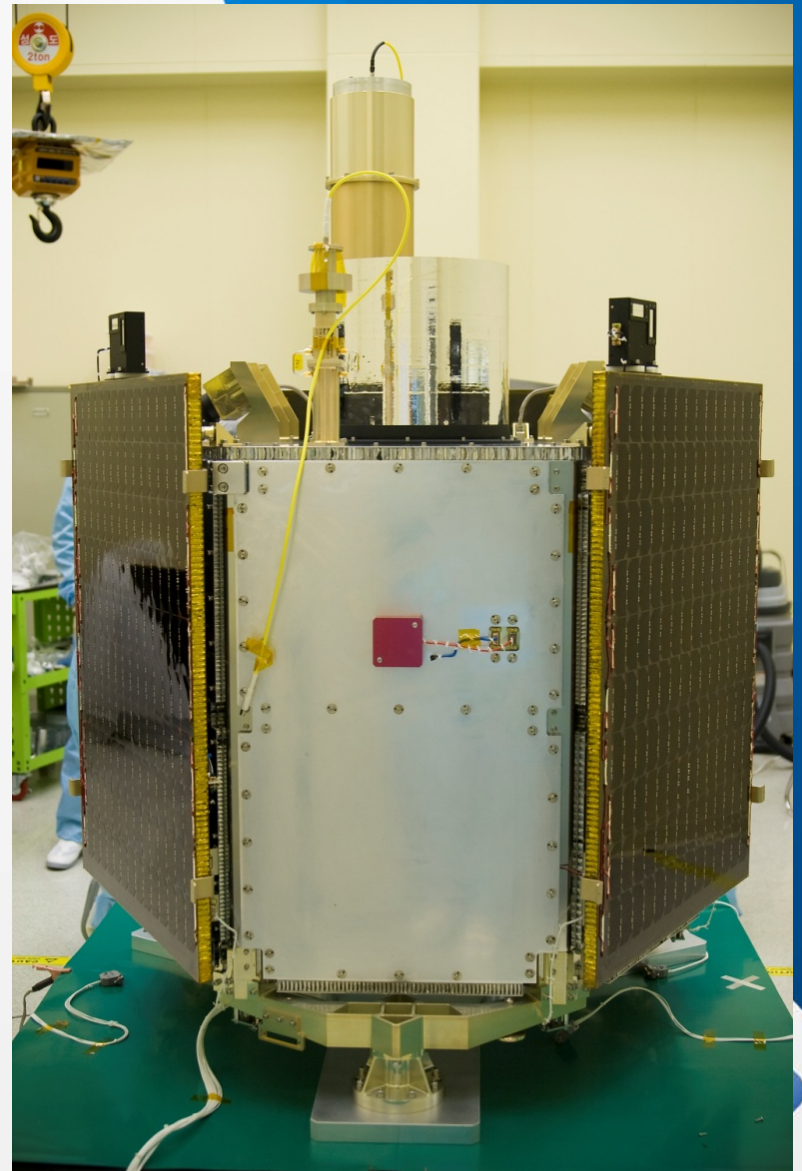
- The First Governmental programme in the UAE:
 - Catalyst project was DubaiSat-1.
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- Goals of EIAST's Space Programme:
 - 1.Building a UAE National Space Programme.
 - 2.Enhancing the skills of UAE nationals in this field through Know-How and technology transfer programmes.
 - 3.Building a satellite with UAE nationals in the UAE.
 - 4.Establishing collaboration locally, regionally and internationally.
 - 5.Benefit the UAE and other nations through applications and cooperation.



Current Projects

•DubaiSat-1:

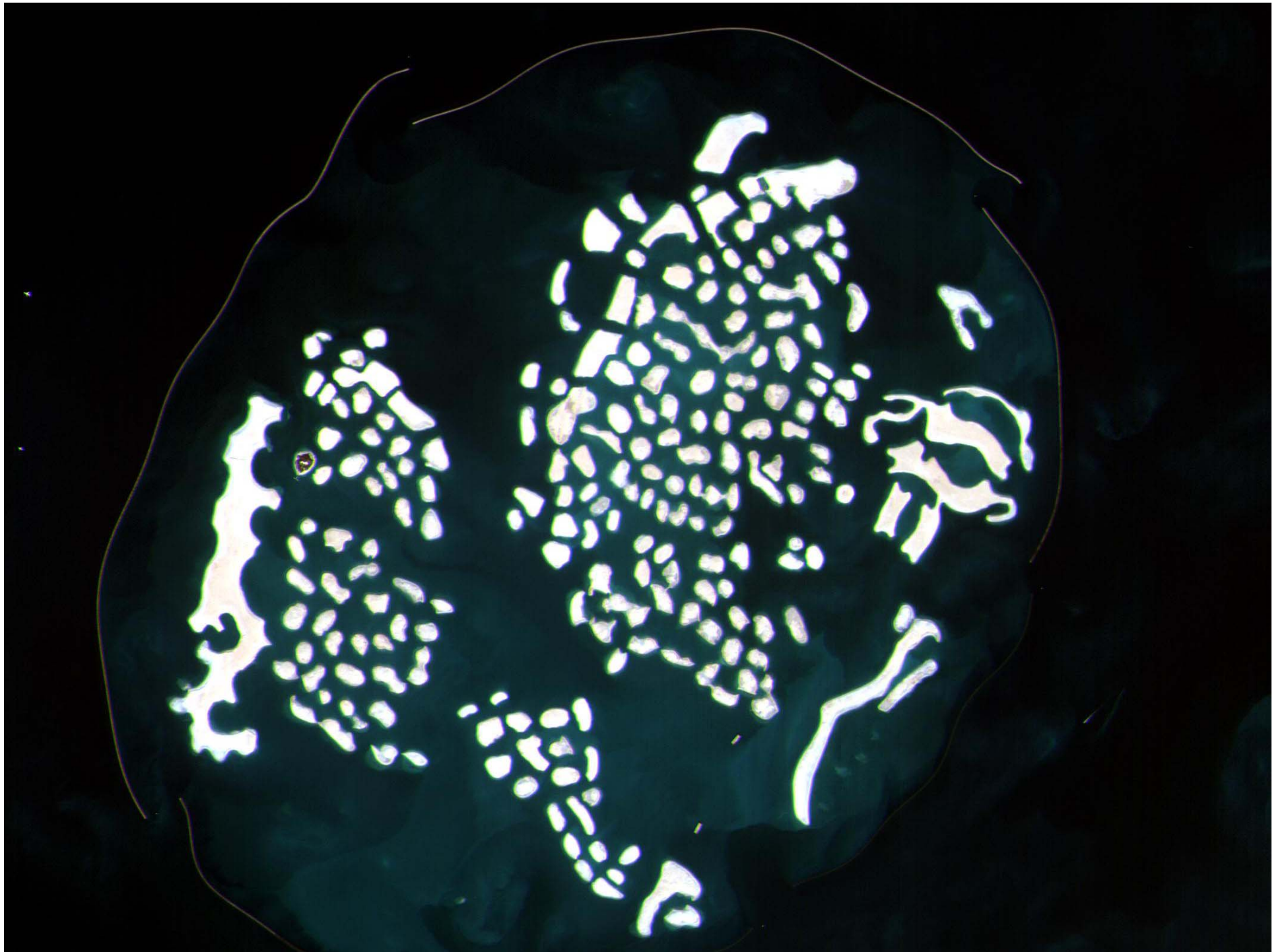
- Developed by Satrec Initiative of South Korea.
- 200 kg Earth Observation Satellite with 2.5 m pan and 5m MS in 4 bands.
- EIAST engineers participated in TTP in all phases of project.
- Objectives include training UAE nationals, knowhow transfer, acquire image for different purposes etc.
- Project started April 2006, launched July 2009.

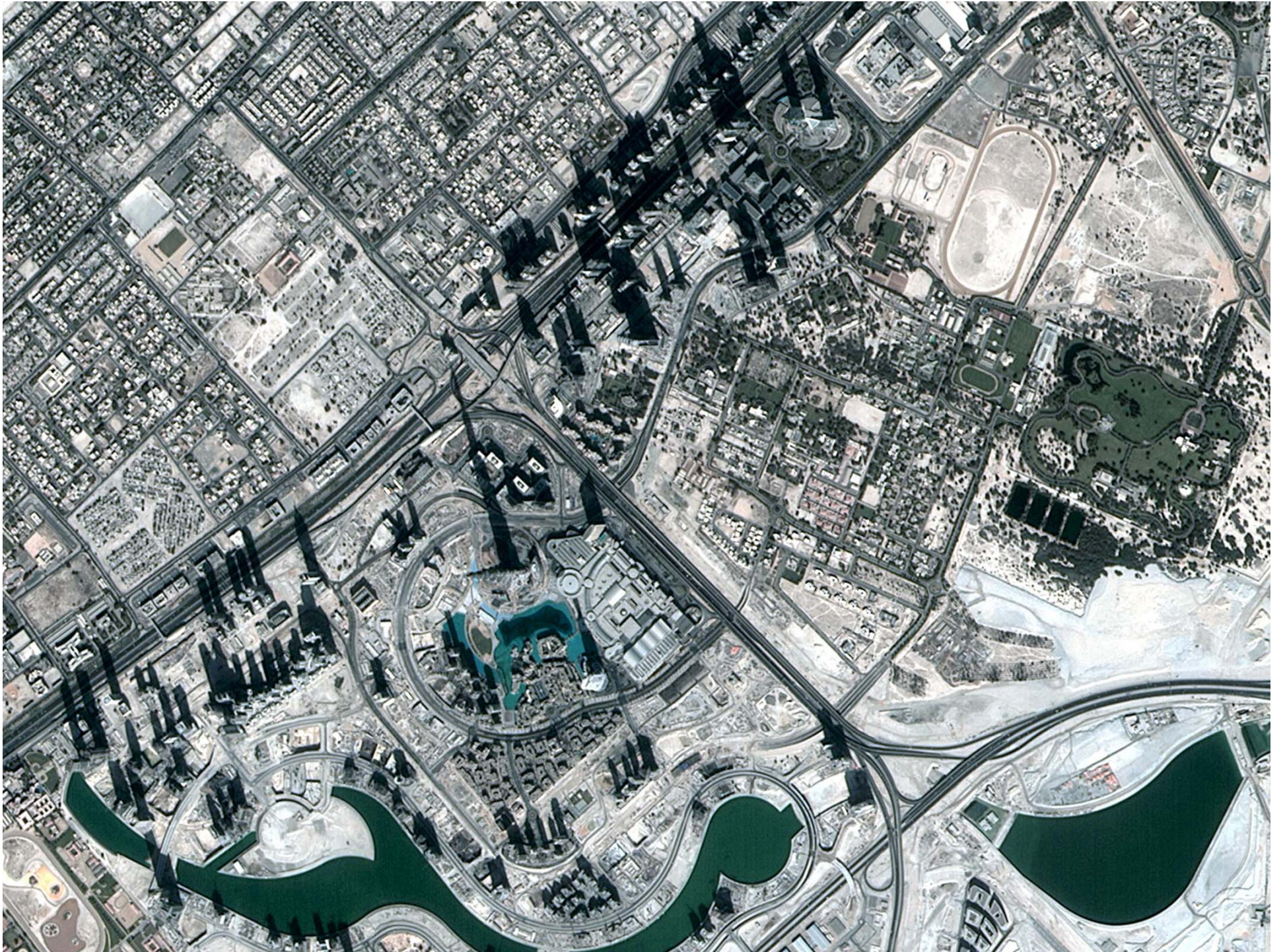


Images from DubaiSat-1











Current Projects:

- Image Processing Center:
- EIAST has setup a specialized IP center.
- All DS-1 data is processed and prepared.
- EIAST will start selling DS-1 data by January 2010, primarily to UAE government entities and UAE Universities.
- EIAST is running its own research projects on DS-1 data, they include, Desalination plant monitoring, fog detection over UAE, Red Tide monitoring, Sand Storm Detection and urban planning (Dubai Metro System).



- EIAST is engaging universities in the UAE and has established projects to allow students to work with DS-1 data and garner interest from student in the field of Space.



Future Projects:

•Satellites:

- DubaiSat-2 and 3.
- UAE university Satellite.
- Major Goal: Design and develop our own in the next 5-10 years.

•Ground Station and IP Center:

- Commercialise all satellite data.
- Commercialise Ground Segment
- Collaborate Internationally through data and applications
- Satellite AITB Center in Dubai

•Others:

- Graduate center for space education.
- Space Museum/Visitor center in UAE.
- First UAE Astronaut



International Relations:

- EIAST is actively establishing relations and cooperation with all major space fairing nations.
- Current international work:
- Agreements or relations with Roscosmos, ESA, CAST, METI, KARI, Egypt, JAXA etc.
- International cooperation with many international companies.
- Work with, ICG, UNOOSA, etc.
- Our goal is to make space accessible to the people of our nation, and to benefit the UAE and the world through the work we do in space.





Thank you