

Space centre set for Abu Dhabi

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Abu Dhabi: The largest space centre in the Middle East and North Africa (MENA) will soon be set up in Abu Dhabi and will receive, analyse and utilise data from satellites orbiting the earth, it was announced at the region's largest defence exhibition on Tuesday.

A cluster of four satellites will also be launched by 2013, with two of them being operational by 2012, industry executives told the International Defence Exhibition (Idex).

The 4C GEOC will be developed in a collaborative venture between United States public company 4C Controls Incorporated, and Abu Dhabi based Hydra Trading LLC. It will cover a surface area of approximately 10,000 square metres, said Major-General Khalid Abdulla Mubarak Al Buainain, the executive vice president of Middle East Military and Defence Projects at 4C Controls Incorporated.

He added the facility will host an earth observation satellite data Direct Receiving Station (DRS) and offer university level courses in space engineering held in cooperation with Politecnico Di Torino, one of Europe's most distinguished science and technology institutes.

The \$30 million (Dh110 million) space centre, which will be operational in six months, will be a dual use facility and be focused on defence applications, civilian security and surveillance, emergency risk management, maritime management, environmental protection, geology, forestry and hydrology, cartography and planning, Major-General Al Buainain said.

"We believe that having 4C's Gulf Earth Observation Centre located in Abu Dhabi will uniquely provide our region (with) an access to a key technology, secure and timely data acquisition, processing, analysis and distribution, which was not available to our regional customers," he added.

Major-General Al Buainain said two satellites worth \$500 million would be launched by 2012 and the following year would see two more satellites put into commission.

Commenting on the venture Dr Mohammad Zahran, the director-general of Hydra Trading, said the state-of-the-art centre which is envisaged to be the only facility of its kind in the MENA region will usher in a new era in the space history of the UAE.

"The centre will be a major step towards further development of space research and technology in the region, especially as we also intend to create a talent pool specialised in the most advanced space technologies. For this venture, we are pleased to partner with a very strong partner, 4C Controls," he said.

According to Jean-Robert Martin, the board chairman at 4C Controls, the space centre will form a link in a global network of three ground stations spread across the Middle East, Africa and Latin America to collect satellite data and provide telemetry, tracking and control (TT&C).

"Given the fact that the security industry worldwide is shifting towards more integrated security solutions, we are focusing on technology as the key driver of growth," he said.

"In the wake of increasing security threats and global terrorism, safety and security are more critical than ever before to governments, military, individuals, commercial and residential sectors.

"Our aim is to achieve global superiority through cutting edge technology and industrial development, offering diverse and integrated security and surveillance solutions", he added.

The proposed multi-utility Space Centre, will host a ground station - Direct Receiving Station (DRS) - with facilities to acquire, process, analyse and distribute high resolution data.

This will occur in real time from optical and synthetic aperture radar (SAR) earth observation satellites across an area of interest (AOI) ranging from latitude 43°S to 43°N.

The data will be acquired under the company's Gulf Satellites Programme, an earth observation system (EOS) consisting of four high resolution SAR satellites (GULF SAR 1, 2, 3 and 4) and two high resolution optical satellites.

The DRS plans to receive and distribute in real-time, the COSMO-SkyMed satellite SAR data acquired in its visibility range.

The COSMO-SkyMed system involves a constellation of four satellites equipped with RADAR sensors designed to operate under any weather conditions in any type of visibility and with very short revisiting time.

Three of the COSMO-SkyMed satellites are in orbit and the fourth is expected to be launched in 2010.

The 4C GEOC will have access to all COSMO-SkyMed images through an exclusive distribution agreement that 4C and e-GEOS SpA, which grants exclusive satellite image distribution rights to 4C to certain countries in the Middle East and North Africa, including the UAE.

The 4C GEOC programme will also create a new generation of skilled space engineers and technicians specialising in the world's most advanced satellite technologies. The proposed ground station complex includes a facility for training regional customers in the latest high resolution earth observation applications, with a special focus on SAR.

In addition, it will host a space engineering academy with classrooms, laboratories for hands-on experience in software (especially image processing), telecommunications and electronics. The academy will offer university level space engineering courses, conducted in cooperation with Politecnico Di Torino.

There are also plans to include a conference centre for hosting special events and annual conventions related to earth observation technologies.

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