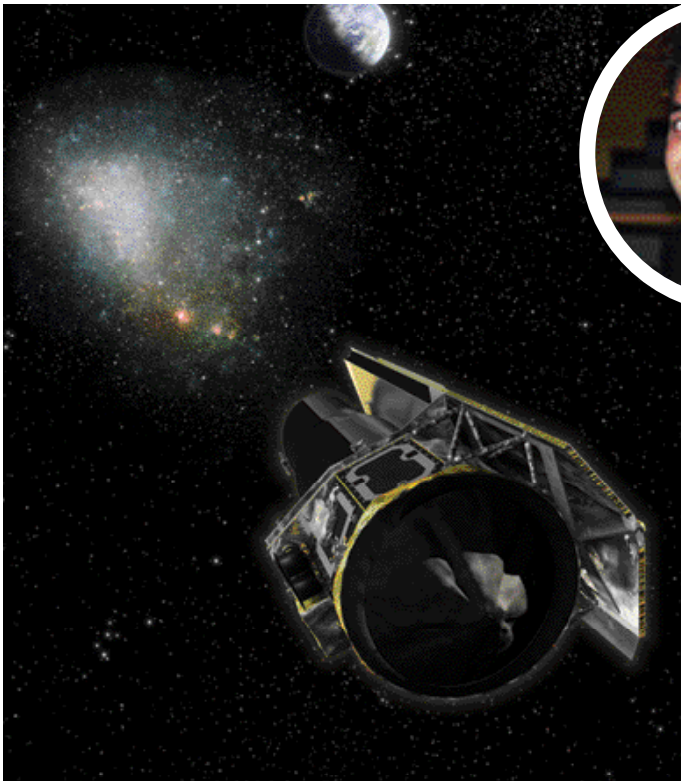


Abdul M Ismail

The Global Space Technology Forum (GSTF) is set to be held at Abu Dhabi National Exhibition Centre (ADNEC) from November 16-18. Gareth Clark spoke to Abdul M Ismail, owner and chief engineer of Interplanetary Expeditions and GSTF promoter, to find out just what the stars hold for the UAE and the human race



What do you hope the forum will achieve?

For foreign delegates, the GSTF will afford an opportunity to gauge the potential to form collaborative ventures with UAE organisations and institutions. For the UAE decision makers, I sincerely hope that they will appreciate the necessity to take a more proactive approach towards developing the space sector by establishing a Federal Space Office to co-ordinate space activities in the UAE.

Is it not too late for a country like the UAE to catch up with the more established space nations?

Not at all. Since the lunar landings in the early '70s there have been some major achievements (Voyager, Cassini etc); but the exploration and exploitation of

space has taken a backseat compared with the investment in the technology that affords profitable space applications, ie telecommunications. This presents countries like the UAE an ideal opportunity to make their mark.

What do you think the future of the space industry will be?

The private sector will lead the way, and when they do the space agencies and space corporations could end up being left behind in a cloud of dust. It will take something of a revolution in technological advancement to propel the space sector beyond what it is today. When this happens, private spaceflight coupled with the establishment of orbital and lunar outposts will pave the way to tap into the huge wealth associated with mining lunar resources. Private spaceflight and

commercial exploitation of nearby terrestrial bodies will complement each other's evolution.

Does the UAE have a role to play in this?

Yes. Firstly, I would like to see the UAE encourage the world's major space corporations to establish local branch centres to handle sales, marketing and manufacture of satellites and spacecraft for the MENA and South East Asian region via a 'space-sector freezone'. The tax-free status would allow companies to offer competitive pricing to their products and services whilst bringing high technology employment for the residents of the UAE. Secondly, financing advanced technology is the key to cheaper, regular and safe access to space, and the UAE can take a vital role in funding high-risk, high pay-off projects. It's a risk, but the return on investment would be phenomenal

Space tourism – is it a gimmick or will it lead to something greater?

Without a direct investment in developing new propulsion systems using novel forms of energy, I'm afraid that sub-orbital hops are all that one will be able to achieve. Sooner or later, the client base will crave orbital flights, and only space corporations offer such technologies (at the cost of tens of millions of dollars per flight). Once these 'space entrepreneurs' acknowledge the limitations of their existing systems and begin funding advanced concepts, only then will the commercial space revolution really begin.

What earthly benefits will we receive from greater investment in space technology?

Many people are totally oblivious to the benefits of what the space industry has brought to everyday life. NASA lists health and medicine (LED, artificial limbs), transportation (highway safety grooving, radial tyres) as well as home benefits such as cordless vacuums, water purification and solar energy as just some of the examples of what has 'spun-off' from its space programme.

Elsewhere, space applications (telecommunications, navigation, meteorology etc) have made much of the world's population reliant on space technology without even knowing it.

What advances do you hope to see in your lifetime?

Assuming entrepreneurs or philanthropists take the lead, I envisage advanced propulsion technologies using novel forms of energy implemented in single stage and orbit vehicles. These vehicles could be refuelled in Earth orbit, or the passengers transferred to interplanetary vessels which will be powered using a concept known as ISRU (In-Situ Resource Utilisation), taking propellant mined and processed from the lunar soil.

They finally found evidence of water on Mars. Was it worth it?

For a number of years now, proponents of human expeditions to Mars have advocated a policy of 'follow the water', ie where there's water, there's proof of life and therefore we must go. This is a sign of desperation. There is simply no political will to spend the hundreds of billions of dollars/euros required to go to Mars without proper justification. Current NASA/European Space Agency plans are to send human expeditions to Mars (circa) 2033 and should that come to fruition, the result will be a 'footprint' and a photo opportunity, nothing more.

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