

# UAE: Future Space Capital of the Middle East

By David Frost

**Ras Al-Khaimah in the UAE is set to become the space capital of the Middle East, with a multi-million dollar commercial spaceport to be developed by the US company Space Adventures in partnership with the government of the Emirate, which has committed \$30 million to the project.**

If the idea of being shot into space in a rocket doesn't frighten you the price could – \$102,000.

Reservations for spaceflights from Ras Al-Khaimah are now being accepted, and already booked to go on the first one is 41-year-old Adnan al-Maimani, owner of a UAE technology development firm.

Initial flights will be in the five-person Russian-designed suborbital spacecraft Explorer, which is carried aloft on a conventional aircraft before using its own rocket power. Passengers will experience the sensation of weightlessness during the hour-long suborbital flight.

"I'm not in it for the adventure," says Adnan. "My point of view is exploration. To become richer with experience, look back at Earth and realize the potential."

He believes the project will be a big boost for his homeland, and commented, "It's a great social and economic opportunity for the United Arab Emirates. It will create jobs and open up the economy even further."

Clearance to operate suborbital spaceflights in UAE airspace has been granted by both Sheikh Saud bin Saqr al-Qasimi, Crown Prince of the Emirate and de facto ruler, and also the UAE's Department of Civilian Aviation.

"I am proud to announce Ras Al-Khaimah as the site where suborbital commercial space travel will begin and flourish," said Sheikh Saud. "Space

Adventures is the pioneer of space tourism, which is why we signed an agreement with them."

Space Adventures certainly does have solid experience in spaceflight. Since its foundation in 1997 it has sold more than \$120 million worth of space tourist flights. In 2001 it sent American Dennis Tito to the International Space Station aboard a Russian Space Agency Soyuz rocket for a reported \$20 million fee, making him the first space tourist ever.

A ten-person advisory board of experienced astronauts and cosmonauts oversees the company's operations. Members include Buzz Aldrin, the second person to set foot on the moon during the 1969 Apollo 11 mission, and also astronauts who have flown in shuttles and to Skylab, the first space station, plus one Russian cosmonaut.

The total cost of the spaceport will be at least \$265 million, with funding coming from various backers, including Texas-based Prodea Systems, whose Iranian-American joint-founder Anousheh Ansari flew to the International Space Station in 2006, spending 10 days there in orbit. This made her the first female Muslim in space, the first Iranian and the first self-funded woman to fly to the space station. She is also only the fourth self-funded space tourist, although she prefers to call herself a "spaceflight participant."

With the planned Ras Al-Khaimah spaceport only an hour's drive from Dubai, it could become a big tourist attraction, just as the Kennedy Space Centre in Florida has, possibly with features such as experiencing the G-force caused by a rocket's acceleration, simulated in a centrifuge, and the weightlessness of a space walk, simulated in a neutral-buoyancy tank of water.

Although the early flights from Ras Al-Khaimah will be short suborbital journeys, the company has much more ambitious enterprises in the pipeline, reaching far beyond the International Space Station. Its Deep Space Expeditions Alpha project involves a commercial spaceflight to the far side of the Moon. Crew members will be able to view the Earth from 250,000 miles away and experience a close-up view of the moon. Two seats are available for the mission, costing \$100 million each.

No doubt there are ultra-high-net-worth individuals in the UAE and elsewhere in the Gulf who could afford this sort of money, but unless there were demonstrable benefits to any companies they owned the money would have to come from their personal wealth.

The next commercial space traveller will be Richard Garriott, son of astronaut Owen Garriott. He is paying \$30 million for a trip to the International Space Station this year (2008), so possibly there

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could be takers for a ticket to the moon, even at \$100 million per seat.

Garriott plans to conduct experiments in space involving protein crystallization for a biotech company which he and his father established, therefore some businesspeople in the GCC could perhaps get away with charging such a trip to their company's expense account if they really wanted to.

For those who are "only" high-net-worth individuals – and there plenty of those in the GCC countries – a suborbital flight could be an affordable alternative at the current price of \$102,000.

When Adnan al-Maimani takes off from Ras Al-Khaimah he will certainly not be the first Arab astronaut.

Prince Sultan bin Salman bin Abdulaziz al-Saud, of Saudi Arabia, was the first Arab in space, and the first Muslim, in 1985, when he flew as a payload specialist on a Discovery mission as one of a seven-member international crew. He represented the Arab Satellite Communications Organization (Arabsat), and was involved in the deployment of their satellite, Arabsat-1B.

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Christa McAuliffe, an Arab-American, was killed in 1986 along the rest of the crew of the Challenger space shuttle, just 73 seconds after take-off.

Muhammed Ahmed Faris was the first Syrian in space in 1987 on the Soyuz TM-3 mission to the Soviet Mir space station.

There are a number of Arab space programmes, including Arabsat, the satellite communications project which Saudi astronaut Prince Sultan was involved in, established in 1967, and also the UAE's Unified Aerosol Experiment,

a highly-technical project in cooperation with NASA (the USA's National Aeronautics and Space Administration).

But now astronomers in the region are backing a call for the creation of an Arab Space Agency, among them the head of the Bahrain Astronomical Society and vice president of the Arab Union on Astronomy and Space Science, Dr Shawqi al-Dallal. He and colleagues from elsewhere in the Arab world are presenting a document to the Arab League, requesting the establishment of an agency to promote satellites for telecommunications and other purposes and to participate in space missions.

Perhaps another option would be to seek the support of entrepreneurs and investment organizations in the GCC countries for a privately funded space agency. There is no lack of capital for projects which can be shown to offer the prospect of a reasonable return, as the aggressive investment policies of institutions in Dubai, Qatar and elsewhere has demonstrated. **GFI**