

Linking up with space station



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MALAYSIAN
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Reporting from
BAIKONUR

Q&A with **DATUK DR MAZLAN OTHMAN**

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'We should take small steps'

Five years ago, Datuk Dr Mazlan Othman left her job in Vienna as United Nations director of outer space affairs to set up the National Space Agency here. On Wednesday, she watched with pride as the country's first angkasawan lifted off. **MINDERJEET KAUR** finds out if the space programme under the agency and the Science, Technology and Innovation Ministry is viable for the future

THE Soyuz spacecraft carrying the hopes and dreams of Malaysians is moving steadily towards the International Space Station.

And Malaysia's first astronaut, Dr Sheikh Muszaphar Shukor, is well on his way to create history.

He has settled in very well and the three-member crew of the Soyuz is set to dock at the ISS tonight.

While on the ISS, Dr Muszaphar will conduct several experiments, including on motion sickness and lower back pain.

The others on the flight are flight commander American Peggy Whitson and Russian cosmonaut Yuri Malechenko.

Astronautic Technology Sdn Bhd chief executive officer Datuk Dr Ahmad Sabirin Arshad said the crew was in contact with Mission Control Centre in Moscow.

"The spacecraft is able to communicate with Mission Control Centre each time it orbits above Moscow," he said in Baikonur yesterday. "This occurs every 90 minutes."

Sabirin said it was normal for the spacecraft to take several attempts to dock successfully as the crew would have to manoeuvre the Soyuz until it joined perfectly with the ISS.

Malaysians watched with pride on Wednesday night as the Soyuz lifted off at 9.21pm.

The ascending spacecraft took just minutes to reach its initial orbit.

This month marks the 50th anniversary of the start of modern space travel, which dates from the Soviet Union's launch of the first satellite, Sputnik 1, from Baikonur on Oct 4, 1957.

Q: Some politicians have asked if the next step should be to send a Malaysian to the moon? Is it possible for us to go to the moon?

A: We should take small steps. If you are talking about having our own technology to send someone to space and into orbit, that requires a lot of commitment such as financial input and human capital.

There are only three countries in the world — the United States, Russia and China — that have the capability to send humans into space. And the amount of money they have put in is a lot.

Each of these countries has thousands of people working on their space programme. The US spent about US\$16 billion (RM56 billion) on its Nasa programme.

We cannot be comparing with them. So when we talk about building a rocket and sending a man into space it might eventually be a reality but not now. We haven't even built our own aeroplanes. Which is why we need to take small steps.

But it does not mean that just because we have not built rockets, we shouldn't send a man to space or

launch a satellite. What we can do is to save money by using someone's rocket. There are different ways of doing things.

Q: What sort of steps should we take before building our own rockets and spacecraft?

A: We start small by having more engineers trained for rocket engineering, aeronautic engineering, space engineering and scientists to look at innovative fuels, among other things.

Q: Are we ready to send another astronaut to the International Space Station next year?

A: To be able to send somebody next year will be good. However, even if we do not send someone for the next few years, our experiments and research can still continue as we will be working with the US, European and Japanese Space Agency.

Q: How long will it take for our space programme to be successful?

A: It depends on how much money is put into it. If we spend money like China, then we can build rockets and go to space very fast. India will also be sending a man to space soon.

Q: How long will it take for Malaysia to develop the human capital?

A: When we talk about technology transfer, we should also talk about our readiness to receive the technology transfer.

Sometimes, we think we pay money to another company and we can do it. It doesn't mean we are ready. There are so many levels of readiness. It takes time.

Throwing in money to get something is one way. But by taking shortcuts, we lose out on certain levels because we do not go deep into it. The government should build a programme, then build the human capital around it.

Q: What should be done so that the younger generation would be able to build rockets and come up with world-class experiments?

A: We need a good education system. I have always advocated that it should start from the primary level. People should be able to see jobs in the space industry as a career. But if the country only needs five space engineers, then no one is going to see it as a career. It is up to the government.

Q: Other than going for road shows and giving talks, what other long-term plans are there for Dr Sheikh Muszaphar Shukor when he returns?

A: The programme should have a long-term impact. That is the development that we want to see. This is why when we embarked on the programme, we were very clear that we were going to do this together with other scientists worldwide. For instance, a lot of equipment that Dr Muszaphar will be using in space was obtained from the United States. We will also carry our experiments for motion sickness and lower back pain for the European Space Agency. For the Japanese Space Agency, our study revolves around the develop-