

First Malaysian into space

Dr Sheikh Muszaphar to spend 10 days at the International Space Station

STAR 11-10-2007 M54

BAIKONUR (Kazakhstan): At exactly 9.22pm (Malaysian time), the Soyuz-FG rocket launcher blasted off from the Baikonur Cosmodrome.

The rocket launcher, carrying the Soyuz TMA-II spacecraft with Malaysian cosmonaut Dr Sheikh Muszaphar Shukor and crew members on board, lit up the clear night sky.

Also on the spacecraft were Nasa's commander Peggy Whitson – the first female International Space Station (ISS) commander – and Russian Yuri Malechenko.

After the blast-off, the cosmonauts experienced a gravity pull of 4G. The rocket shot up at a speed of 4,000km per hour to reach orbit in two minutes.

Two minutes into launch, the four lateral boosters were jettisoned, and the gravity pull was reduced to 1.5G. When the core stage engine fired at full thrust,

gravity force climbed to 3G.

Third-stage separation occurred at 8.48 seconds into launch, when the space capsule was fully separated.

It took about nine minutes for Soyuz to enter zero gravity, after which it will orbit the Earth for two days before docking with the ISS, a process that will take two to three hours. Prior to docking, the cosmonauts will be strapped to their seats during the docking procedure.

Once in orbit, the mission was taken over by the Mission Control Centre in Moscow.

Viewers who were 7km away from the launch pad felt the ground vibrate from the enormous thrust of the launcher.

VIPs and guests who witnessed the launch included Dr Sheikh Muszaphar's parents Datuk Sheikh Mustapha Shukor and Datin Zuraida Sheikh Ahmad.



Some two hours before the launch, all communication systems (telephone lines, mobile telephone lines and TV) were cut off in the launch pad area to block the airwaves and ensure contact with the crew was not disrupted in any way. Blackout was also experienced as the power supply was drained by the launch.

During the launch, road and rail traffic were also halted as a safety measure.

The crew's big day began when

they walked out of the Cosmonaut Hotel, which is not a guest hotel but actually part of the Gagarin Cosmonaut Training Centre where they were quarantined, and boarded a bus that took them to the launch pad, seven hours prior to the launch.

On the bus, they watched a 10-minute video of their friends and families wishing them bon voyage.

The bus stopped midway for a ritual that has been performed by cosmonauts since the time of Yuri Gagarin – the men urinated on the bus tyres.

At the launch pad, they made their "last walk", which was the last chance for family members and people to see them from a distance.

The three put on their custom-made Sukol space suit before they went through a formal military ceremony and shook hands with important guests, including the Prime Mi-

nister of Kazakhstan, Russian Federal Space Agency chief Perminov Anatoli Nikolaevich, Kazakh Space Agency chief Musabaev Talgat Amangeldievich and Malaysian Ambassador to Russia Datuk Mohamad Khalis Ali Hassan.

About four hours to the launch, the crew were hoisted to the capsule via an elevator. They were strapped to their seats and went through system checks.

Forty-five minutes to the launch, the rocket's service gantry was removed, the flight programme loaded and the crew's space suits were checked for air tightness.

Unlike a shuttle launch, the Soyuz rocket launch has no countdown – blastoff occurs when everything is in place and set to go.

The rocket's four lateral boosters were started 29 seconds to launch.

Dr Sheikh Muszaphar will return on Oct 21.