

Preparations for trip home begin

Angkasawan fits seat in capsule, packs stuff

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ALTHOUGH Dr Sheikh Muszaphar Shukor is not due to leave the International Space Station (ISS) for Earth for three more days, preparations are already underway for the journey home.

Malaysia's first Angkasawan will depart from the ISS on Sunday in the Soyuz 14S capsule with current ISS commander Feodor Yuchikin, who will be the capsule commander, and Oleg Kotov as flight engineer.

The crew fitted their customised seats into the capsule and packing has also begun. On Wednesday, they rehearsed the capsule undocking exercise.

The packing of cargo for the return trip goes according to weight distribution in the capsule. It is also because of weight distribution that Dr Sheikh Muszaphar had to lose 2kg prior to his trip into space.

Of the 15kg he brought to the ISS, he will only be bringing back 7kg. This includes 200gm of his personal items.

The experiments which Dr Sheikh Muszaphar conducted onboard the ISS have to be packed with utmost care because the impact of the Soyuz capsule's landing would be akin to that of an auto accident.

The experiments have to be loaded into a special bag and the breakable protein crystals, for example, need to be able to withstand the landing impact.

Universiti Kebangsaan Malaysia Medical Molecular Biology Institute (Umbi) director Prof Dr A. Rahman A. Jamal, who heads the scientific team,



For safekeeping: Dr Sheikh Muszaphar storing one of his experiment kits behind a control panel to take advantage of its optimum temperature.

said that for this reason, engineering and logistics support was crucial, including the designing of special hardware and packaging.

The cargo's retrieval becomes more crucial because the results of the scientists' and Dr Sheikh Muszaphar's work in space have to be preserved and delivered intact.

Upon landing, Astronautic Technology Sdn Bhd senior engineer Firdaus Othman will go to the landing site in Kazakhstan with National Angkasawan Programme director Kol Dr Zulkeffeli Mat Jusoh to retrieve the cargo and bring it here.

"They have to be held steadily when being transported to Moscow. The temperature has to be maintained because the brittle crystals can break if it gets too cold," Dr Zulkeffeli said.

Yesterday, a handover briefing for the ISS commandership was held.

American Peggy Whitson, who was on the Soyuz 15S mission which brought Dr Sheikh Muszaphar and Russian flight engineer Yuri Malenchenko to the ISS, will replace Yuchikin as ISS commander.

The ISS crew is also busy with expansion work to set up the

European Space Agency (ESA) module to make way for the European component to join the US and Russian modules to make up the ISS.

The work involved American Clay Anderson carrying out a space walk to remove the US shuttle node to facilitate the construction of the ESA facility.

"Although they are busy with expansion work, the crew still assists Dr Sheikh Muszaphar with his activities. He is contracted 10 hours of assistance and the commander will assign someone to help him," Dr Zulkeffeli said.