

ONCE UPON A TIME.....

ONE COUNTRY'S SOYUZ ADVENTURE



By: Sdr. K.H. Man, Standing Committee on Publications

The developing Asian country had signed an agreement with the Russians to fly one of their countrymen into space in a Soyuz spacecraft. The plan was a natural development of healthy military trade between the two countries. Two citizens were selected. After about two years of training, one rocketed into space and spent a week on the space station in orbit, becoming the first citizen of that country to go into space. The country however did not follow up on the mission, but instead turned its focus on building an indigenous space-faring capability.

Sounds familiar, doesn't it? Just over 20 years ago, India did exactly that. Malaysia is going through the same motions now in 2004. Let us take a peek at history, at India's manned space adventure, to see what we can learn from the Indian experience.

The Indo-Soviet Soyuz T-11 flight has its roots in the Intercosmos programme, launched in 1965 with many socialist countries as members. A major part of the programme was the launch of guest cosmonauts for short stays on the Salyut space station. Nine countries, including Vietnam, Mongolia and Cuba, eventually had their first person sent into space. Much of the Western world have not heard of Vietnam's Pham Tuan, for instance. Although going into space is something to be proud of, going as a guest is not as prestigious as going into space in your own Roman candle contraption.

After the end of the Intercosmos programme, Russia continued sending guest cosmonauts of friendly countries into space. India made such a deal, as did France, whose spationaut Jean-Loup Chretien went up on 1982. In 1982, Indians R. Sharma and R. Malhotra flew to Zvezdny Gorodok for training. It was Wing Commander Rakesh Sharma of the Indian Air Force who eventually flew on 3 April 1984, along with the principal Russian crew, Yuri Malyshev and Gennady Strekalov. The flight was a necessity for the Russians anyway, because they had to rotate Soyuz spacecrafts docked with Salyut 7 for the long duration residencies being conducted during that period.

The Indo-Soviet flight lasted till 11 April 1984, a full

weeks' stay on Salyut 7, and the three cosmonauts returned on the older Soyuz T-10 spacecraft. Among the experiments jointly conducted were remote sensing (photography of the Indian subcontinent), material processing, and the use of Yoga techniques to combat weightlessness.

The flight was of course a success, achieving its main objective of putting India's first person in space. However, in context of ISRO (Indian Space Research Organisation) work, the manned flight is a curious and anomalous blip. Sharma's flight was aimed at putting India on the manned space flight map, nothing more. Manned flights were never going to be sustained, especially since ISRO concerns itself with the application of technology to real problems of man and society. For countries like India and Brazil, indigenous programmes and manned flights are mutually exclusive, because a developing country does not have that much cash to burn.

Instead, India has focused its resources in building ISRO as a space science and engineering powerhouse. India has her own launch vehicles and builds her own remote sensing satellites. ISRO does not do manned flights, arguing that the intensive resource investment needed cannot yield an adequate return.

Rakesh Sharma has retired and is now sort of an elder statesman of the Indian space community.

20 years on, India is planning a probe to the moon, Chandrayaan-1, to be launched on an Indian rocket, the PSLV. They are also working on ramjets, cryogenic engines and capsule return.

We engineers should see beyond the public relations aspects of our astronaut programme and recognise that we are the ones who will be charged with building our own space faring capability. The challenge is not the brief manned flight to come; the challenge lies right here on the ground, and it's our marathon.

Dedicated to Kalpana Chawla, 1962-2003, STS-107.

Astronaut Kalpana Chawla was an aeronautical engineer. ■