

NEWS IN BRIEF

■ FASTRAC TEST

The 27,200kg-thrust liquid oxygen-kerosene Fastrac rocket engine for NASA's X-34 technology demonstrator has been tested at the agency's Marshall Space Flight Center, Alabama. A series of up to 25 flight tests will begin in 1998, with the X-34 eventually reaching Mach 15, to demonstrate technologies including composite structures, re-usable propellant tanks and advanced thermal-protection.

■ EARLY WARNING

A Russian Proton K booster carried a Prognoz early-warning satellite into orbit on 15 August, after launch from the Baikonur Cosmodrome.

■ OVERBERG LAUNCHES

The Houwteq division of South Africa's Denelis negotiating with several foreign countries to provide low-Earth-orbit satellite-launcher services at Overberg, near Bredasdorp, 160km (100 miles) south-east of Cape Town. Houwteq would provide satellite and launcher-preparation services, and manage the launches:

■ KOREA ROCKET

The Korea Sounding Rocket 2 has been launched on a 6min 27s sub-orbital flight to 128km altitude, carrying a 150kg science payload, as part of the country's quest to build a national satellite launcher capable of placing 700kg payloads into low-Earth orbit.

■ CTV TEST

The European Space Agency has conducted the first automatically guided descent and landing of a parafoil test vehicle to support the Crew Transfer Vehicle programme for the International Space Station. The vehicle, carrying a 1,700kg payload and a global-positioning system, was dropped from an aircraft at 1,800m altitude.

ESA astronaut qualifies as Soyuz TM commander

TIM FURNISS/LONDON

THOMAS REITER, the European Space Agency's German air-force astronaut, has become the first foreigner to qualify to command a flight of the Russian three-crew Soyuz TM.

Reiter, a veteran of a 179-day shift aboard the Mir 1 space station in 1996, which included two spacewalks, will be available to command a Soyuz TM re-entry and landing from the International Space Station (ISS).

The TM will be docked at the ISS for a routine return flight, or as one of two TM Interim Crew Emergency Return Vehicles

(CERVs), which will always be available to evacuate the six-person ISS crew if necessary.

Each ISS crew will eventually have to include two qualified Soyuz TM commanders. The TM will later be replaced by a NASA-developed CERV.

Russia, meanwhile, has selected further ISS crews, joining the three already in training for the first manned occupation.

The first Soyuz TM mission, due in January 1999, will include Yuri Gidzenko and Sergei Krikalev, who will be joined by ISS commander US astronaut William Shepherd (*Flight International*, 11-17 June).

Other Russian crews will include

commanders Yuri Malenchenko, Yuri Onufreinko, Vladimir Dezhurov, Valeri Korzun and Salizhan Sharipov. The flight engineers are Nadezhda Kuzhelnaya and Mikhail Tyurin of NPO Energia.

Conditions on the Mir 1 permitting, Russia has also named the 1998 Mir mission crews. Talgat Muzabayev and Nikolai Budarin will fly the TM27 mission in January, which will include French cosmonaut Leopold Eyharts.

The TM 28 will be flown by Gennadi Padalko and Sergei Avdeyev. Two other TM-Mir crews are Viktor Afanasyev and Sergei Treshchev, and Sergei Zaletin and Alexander Kaleri. □

NASA plans for new Hubble instrument

NASA PLANS to order the \$25 million Cosmic Origins Spectrograph (COS) from the University of Colorado, to be installed on the Hubble Space Telescope during the fourth servicing mission scheduled to take place in late 2002.

The COS will enhance the Hubble's spectrographic capabilities at ultraviolet wavelengths and will become the "premier Hubble instrument", says Dr James Green, of the University of Colorado.

"It will allow astronomers to study the very early Universe and the creation of the heavy elements during the first period of star formation billions of years ago," Green says.

The COS will replace the Costar instrument, which was installed during the first Shuttle servicing mission in December 1993 to correct the Hubble's optical aberration. The more recent instruments for the Hubble have the correction accounted for in their design, rendering the Costar unnecessary.

The COS will be installed during the STS127/*Columbia* mission in August 2002. □

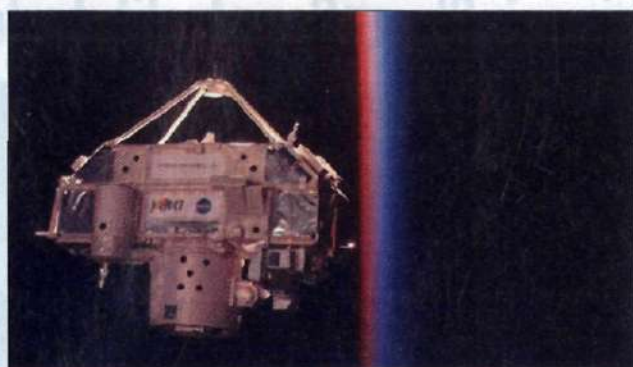
Japan's Comets satellite launch is delayed

THE LAUNCH of the Japanese National Space Development Agency's Comets communications and broadcasting engineering satellite aboard an H2 booster has been delayed by six months to January-February 1998.

This will allow more time to assess the cause of the failure in June of the Adeos Earth observa-

tion satellite while in orbit.

■ Japan's first satellite launch outside the previously allowable windows of January-February and August-September dates will take place on 1 November with the launch of the NASA/Japanese Tropical Rainfall Measuring Mission satellite and Japan's Engineering Test Satellite 7. □



Shuttle lands after deployment mission

The Space Shuttle Discovery/STS 85 landed at the Kennedy Space Center, Florida on 19 August after an 11-day science, technology and Earth observation mission, which included the deployment and retrieval of the German-built Crista-Spas free-flying satellite (pictured). The Daimler-Benz Aerospace space-craft carried instruments to study the atmosphere.