

NEWS IN BRIEF

■ LAUNCH GO-AHEAD

The third Japanese H2 booster will be launched on 15 March, after delays caused by technical problems with one of its payloads, the Space Flyer Unit. The other payload is the GMS 5 weather satellite. The launch, during an unprecedented period outside the usual January-February and August-September windows, was agreed with the Japanese fishing industry, which has won restrictions on launches over its fishing grounds (*Flight International*, 15-21 February).

■ LORAL SUCCESS

Space Systems/Loral has been awarded a \$102 million contract from the Japanese transport ministry, to build an air-traffic-control satellite which will be launched in 1999. The company beat a bid by NEC.

■ KODAK IN SPACE

Eastman Kodak has joined the Space Imaging company formed by Lockheed to operate a commercial remote-sensing satellite system, starting in 1997. The satellites will generate 1m-resolution digital images for the production of data products for a market which is forecast to be worth \$5 billion in 2000. Japan's Mitsubishi has also joined Lockheed. The competitive Eyeglass project, formed by Orbital Sciences and GDE Systems, has been hit by the withdrawal of Litton Industries' Itek division.

■ HEAT REJECTION

Loral Vought Systems has been awarded a \$13.3 million contract extension to redesign six heat-rejection-system radiators for the International Space Station. The 1,050kg, 3m-long, radiators will be capable of releasing 11kW of excess heat, using a pumped liquid-ammonia heat-transfer system.

Russian space programme funding reaches crisis point

TIM FURNISS/LONDON

THE RUSSIAN parliament has adopted a resolution which, if ratified, will secure financing of the country's space programme at a level of "no less than 1% of the GNP [gross national product]", and establish a national space policy.

Parliamentary approval would "...at least prevent the further worsening of the situation, if not improve it", says one analyst (*Flight International*, 1-7 March).

Evidence provided by Russian military and civilian space officials to the Russian Parliament revealed that the space budget in 1994 was only 10% of its 1989 level and that financing of the military space programme and rocket production was down by a factor of ten.

Only one-half of the planned launches in 1994 took place and the Russian Space Agency (RSA) received only 12% of its budget

requirements. As a result, 34 of 70 long-term programmes originally planned were curtailed.

The civilian space programme was described as "doomed", with 50% of its staff having lost their jobs or left. The military space programme "...would collapse within three years", the Parliament was told, with military and civilian launches of satellites to replace ageing or obsolete spacecraft becoming almost impossible.

Vladimir Ryumin, a former cosmonaut and now director of the Mir space-station programme, says that the budget is "so miserly" that the space station may not be able to support manned flights for much longer and "...may have to be evacuated". Restored to a minimal level, the space budget may just be enough to support the planned Space Shuttle/Mir docking missions, starting in June.

Support for Mir operations would require 5,500 billion roubles

(\$780 million at the market-exchange rate), but the 1995 budget is only 660 billion roubles — less than 1.5% of this was released in the first two months of this year.

The RSA is prepared to postpone the planned Soyuz TM21 launch of two cosmonauts and the US astronaut Norman Thagard on 14 March for budgetary reasons. In addition, the Soyuz booster to launch the Progress M27 tanker to the Mir in April, to support Thagard's mission, will be taken from a dwindling military arsenal.

Components required to complete construction of the Spektr module, to be launched to the Mir in May to support US space operations, have not yet been delivered, even though the work has been paid for by NASA.

It has also been revealed that Russia's contribution to the international Alpha space station is not guaranteed beyond the first component, the FGB space tug. □

Hughes beats TRW to NASA contract

HUGHES SPACE AND Communications has won a \$480 million contract from NASA to build three tracking and data-relay satellites, the TDRS H, I and J. It beat competition from the existing contractor, TRW.

This brings to 41 the number of HS-601 spacecraft on order (*Flight International*, 1-7 February). The first seven TDRS were built by TRW, the last of which will be flown aboard the Space Shuttle *Discovery*/STS70 in June 1995 and will be a "space spare".

The TDRS H launch is due in 1999 and the new spacecraft will add a Ka-band capacity to the Ku- and S-band on current spacecraft.

■ Hughes has signed a general launch-services agreement for an undisclosed number of launches by the Russian Proton booster, starting in 1997, with Lockheed Khruichev Energia International. □

ACE is high with Delta deal

NASA HAS SELECTED the McDonnell Douglas Delta 2 to launch its Advanced Composition Explorer (ACE) in August 1997, by exercising its option within the Medium Expendable Launch Vehicle Services (MELVS) contract with the company. This brings to 19 "firm NASA and commercial orders" for the Delta, says Richard Murphy, the company's director of NASA and Commercial Delta Programmes. Under the MELVS contract, the company has launched two satellites, the Geotail and Wind, and has seven remaining on the manifest, with six further options available to be exercised by NASA.

