Space business forecast reduced

WASHINGTON D.C.

Slower-than-expected progress towards the productive use of space by companies such as McDonnell Douglas has led the US Centre for Space Policy to reduce its estimate of the potential value of business opportunities in space.

Space processing is still seen as a potential moneyspinner, but the two-year delay experienced by McDonnell Douglas in its electrophoresis programme has illustrated the difficulties faced by such companies, which, without Nasa's joint-venture scheme to reduce Shuttle costs, would effectively end these programmes before they began.

As a result, there is still little widespread commitment to the commercialisation of space, says the Centre for Space Policy. Accordingly, the organisation has reduced its estimate of the potential value of space business from last year's figures of from $44,000 million to $53,000 million to an initial $16,800 million and $51,300 million at its highest. McDonnell Douglas was to have flown its continuous-flow electrophoresis equipment for a third time on the 511 Shuttle mission in August, but has delayed the flight until STS 61B in November to allow more time to assess the biological material produced on mission 51D in April.

Examination of the material produced on mission 51D by Orbiter mid-deck equipment tended by company payload specialist Charles Walker revealed no contamination (a problem on the previous flight). After some of the hormone had been analysed to determine the separation grade achieved, it was sent to Johnson & Johnson for testing on animals. Mission 61B was to have flown the first fully automated electrophoresis manufacturing plant, EOS 1, in the Orbiter payload bay. This has now been put back to 61H in June 1986. Company payload specialist Robert Wood, who designed the software for EOS, has been selected to accompany the equipment.

After a second Nasa-funded flight of the automated payload-bay plant in 1986 the drug, thought to be for the treatment of diabetes, will undergo US Food and Drug Administration clearance before being put on the market in 1988 at the earliest. The company will continue to fly the EOS unit at its own expense on further Shuttle missions, having shelved its plan to use free-flying platforms.

Cosmos biosat launched

MOSCOW

Cosmos 1667, launched by the Soviet Union on July 10 to “study the effects of space on organisms”, follows a five-day flight by a similar spacecraft, Cosmos 1514, in December 1983.

Cosmos 1514 carried an international array of experiments involving rats, fish, plants, and two macaque monkeys which suffered from motion sickness. One monkey subsequently died because it was overfed after returning from space in such bad shape. Pregnant rats carried on Cosmos 1514 gave birth after returning to Earth, providing confirmation that embryogenesis is not affected by zero g.

Nasa seeks Shuttle manager

JOHNSON S.C.

In September Nasa will announce which company has won the contract to handle Space Transportation System operations at the Johnson Space Centre in Houston. Four teams, headed by Ford Aerospace, Grumman, Lockheed, and Rockwell are competing for the contract.

JSC is seeking to consolidate its myriad industrial contracts and contractors under one manageable “umbrella” contract. Presently 4,000 people from 16 contractors are working at Houston under 22 separate contracts.

P&W improves RL10

Pratt & Whitney’s RL10 cryogenic rocket engine will continue to be used at least until 1993, powering the Centaur upper stages of the Atlas and Titan 34D-7 expendable launchers, as well as the Centaur upper stage for Shuttle. A product improvement programme is under way to develop RL10 to power future single-engined upper stages.

UARS borrows from Solar Max

GREENBELT

The attitude control system from the Solar Maximum Mission spacecraft, replaced during the Shuttle Solar Max repair flight in April 1984, is to be reused on General Electric's upper atmosphere research satellite (UARS), to be launched by Shuttle in 1989.

GE is building the unique spacecraft under a $145 million Nasa contract. Weighing 7,000kg, UARS will be deployed from Shuttle into a 800km-high circular orbit inclined at 57°. From there it will study the chemistry and dynamics of the Earth's upper atmosphere. Data will be transmitted at 32,000 bits a second back to Nasa’s Goddard Space Flight Centre via a TDRS communications relay satellite.

A major aim of the UARS mission will be to gain an insight into the natural and man-made effects on the ozone layer.