Insurance will rise after Telstar failure

JULIAN MOXON/**KOUROU**

SATELLITE INSURANCE premiums are due to rise following the failure of the Martin-Marietta-built Telstar 402 satellite on 8 September.

The satellite was insured for $187 million by a consortium set up by US satellite insurance broker Marsh McLennan. "We're always prepared for another loss" says one insurance underwriter, "but, taken with the failure of the Ariane V63 launcher in January, rates are bound to go up somewhat."

Built for AT&T, the satellite was lost after a flawless launch from the Kourou space centre aboard an Ariane 42L rocket. Following release, a leak of the helium gas used to push propellant to the satellite thrusters meant that the thrusters failed to operate. The satellite was unable to orientate itself correctly, and contact was lost about 10min after release.

Arianespace president Charles Bigot says that the loss was "very disheartening". It was the first launch of an AT&T satellite by Arianespace, which can now count all of the major telecommunications-satellite builders among its customers.

AT&T marketing vice-president Karl Savatiel says that he "fully intends" to use Arianespace for future satellite launches. "We've been very impressed with their operation at Kourou," he says.

The Telstar 402 was the second of a new generation of broadcast and video satellites developed by Martin Marietta for the company. The first was placed into orbit on 15 December, 1993, aboard a US Atlas launcher, and is said to be operating normally.

A third satellite, originally a spare, will now be deployed, again using the Atlas, "probably in early 1995", says Savatiel.

Arianespace will launch telecommunications satellites for Thailand and Mexico on 4 Octoberand has won the contract to launch Argentina's National Satellite in 1996. ❑

AUGUST SATELLITE LAUNCH LOG

No	Date	Spacecraft	Type	Launcher(*)	Country(*)	Launch site(*)
45	2 Aug	Cosmos 2285	Milsat	Cosmos (3)	CIS (24)	Plesetsk (10)
46	3 Aug	Apex	Science	Pegasus (2)	USA (14)	Air launch (2)
47	3 Aug	DBS 2	Comsat	Atlas (3)	USA (15)	Canaveral (7)
48	5 Aug	Cosmos 2286	Early/W	Molniya (1)	CIS (25)	Plesetsk (11)
49	10 Aug	Brasilsat B1	Comsats	Ariane 4 (3)	Europe (3)	Kourou (3)
		Turksat 1B				
50	11 Aug	Cosmos 2287	Navsats	Proton (6)	CIS (26)	Baikonur (15)
		-2289				
51	23 Aug	Molniya 3	Comsat	Molniya (2)	CIS (27)	Plesetsk (12)
52	25 Aug	Progress M24	Tanker	Soyuz (12)	CIS (28)	Baikonur (16)
53	26 Aug	Cosmos 2290	Obs	Zenit (2)	CIS (29)	Baikonur (17)
54	27 Aug	DoD	GEO/Mil	Titan 4 (3)	USA (16)	Canaveral (8)
55	27 Aug	Optus B3	Comsat	LM2E (1)	China (4)	Xichang (3)
56	28 Aug	ETS 6	Comsat	H2 (2)	Japan (2)	Tanegashima (2)
57	29 Aug	DMSP	Metsat	Atlas E (1)	USA (17)	Vandenberg (4)

* Indicates total number of orbital launches by this launch vehicle, country and launch site in 1994. ETS6 is stranded in useless orbit

DASA sells Rokot launcher

DEUTSCHE AEROSPACE Space Systems (DASA) has linked with Russian company Khrunichev to market commercially former SS-19 Stiletto intercontinental ballistic missiles as the Rokot satellite launcher.

The SS-19 was designed by DB Salyut and has been built by Khrunichev.

When it is operational, the 106t 24.6m-high Rokot will be launched from Plesetsk and be able to carry a payload of up to 2,000kg into low-Earth orbit.

It will be fitted with a new payload shroud and a DB Salyut-built orbital-injection stage, called the Breaz.

The missile will be launched from the surface, rather than the silo which would have been used had it been used by the military.

The Rokot was tested twice on sub-orbital flights from Baikonur, in November 1990 and December 1991.

Development began in 1965 and the missile was deployed operationally in 1974. ❑

Night of Titan

THE THIRD MARTIN Matrietta Titan 4 Centaur booster lifted off from Cape Canaveral on 27 August, carrying what is thought to be a geostationary signals-intelligence satellite for the National Reconnaisance Office. Lifting off 91 days after arrival at the pad, the fastest-ever turnaround in the Titan 4 programme was recorded for the launcher. Ten Titan 4 variants have been launched from Cape Canaveral and Vandenberg AFB, California, since 1989, with one failure. The next launch is scheduled for late this month, carrying a Boeing Inertial Upper Stage, instead of the Centaur.

Shuttle engine cleared

THE SPACE Shuttle Main Engine (SSME), problems on which caused the ground abort of the launch of the *Endeavour* on 18 August, has been test-fired at the Stennis Space Center, Mississippi for 340s.

The 4 September test proceeded without difficulty (*Flight International*, 31 August-6 September).

NASA will now attempt to fly the *Endeavour*, fitted with three new engines taken from the *Atlantis*, on its STS68 mission on 2 October. The *Atlantis* mission, STS66, could be delayed from 27 October, to ensure that adequate time is allowed for fitting three other engines. The *Endeavour* arrived on its launch pad on 13 September

The STS64/*Discovery*, meanwhile, was launched successfully on 9 September on its nine-day Earth-observation and space-walking flight (*Flight International*, 7-13 September). It was scheduled to be returned to Earth on 18-19 September.

The discharge temperature of the high-pressure oxidiser turbopump of the engine 3024 exceeded its limits by 8°C during the STS68 abort.

The lift-off could have taken place and the engine could have functioned normally, says NASA, but conservative launch rules had been built into the on-board launch computer.

It seems that the problem was caused by several factors. A flow meter in the liquid-oxygen feed system had a small fluctuation, causing a slight oxygen-rich mix, with a resulting higher discharge temperature. The engine also had a slower start than usual. ❑