REVERSING THE FLOW

The large number of competitors fighting for limited business makes the engine-nacelle market one of the most hard fought in the industry. Julian Moxon visits France’s Hispano-Suiza to discuss its strategy for survival.

Since 1991, Hispano-Suiza’s engine-nacelle/thrust-reverser work has expanded from 33% to almost 50% of its total business. At the same time, a concerted effort to cut manufacturing costs and improve production efficiency has led to a slashing of the time needed to assemble Airbus A340 thrust reversers.

Clearly, this wholly owned subsidiary of French engine-manufacturer Snecma intends to stay in a field where the competition is increasingly tough, not to mention complex.

While the two biggest nacelle manufacturers, Rohr and Boeing, each share around 30% of the $1.6 billion global market, the rest has to be fought out between the 20 or so other companies remaining. Of these, eight companies (Hispano-Suiza, Grumman, Martin Marietta, General Electric, Shorts, Hurel Dubois, Westland and Alenia) have shares of 3-5% each.

The current economic conditions, coupled with concern about the dominance of Rohr, have led to increasing pressure to form alliances, and Hispano-Suiza has been no exception. Its experiences provide a good example of the difficulties facing this sector of the industry when it comes to forming partnerships.

“We always wanted to form a pole of excellence in the nacelle business,” recalls Hispano-Suiza president Raymond Poggi. Hopes in 1982/3 of widening its relationship with Rohr resulted from a contract to manufacture the thrust reversers for the CFM56-powered A320 (for the Rohr-supplied nacelle), and, later, the translating cowl for the V2500-powered version (to a Rohr design). The alliance never materialised, however.

In 1991, the French company again set its sights on co-operation, this time with a team being assembled under the guidance of Rolls-Royce. This also failed after France’s other nacelle manufacturer, Hurel Dubois, bought Lucas Burnley in the UK, creating a UK branch that, with Shorts, gave R-R an all-UK source of nacelles for its Trent engines.

TALKS WITH ALENIA

Talks with Alenia then began, leading in 1992 to the creation of Euronacelle, in which Alenia would continue to specialise in nacelle front halves, leaving Hispano-Suiza to concentrate on thrust reversers. Things began to unravel, however, because of the difficulties Alenia was facing with re-organisation and privatisation.

The talks dragged on, and, meanwhile, the “Project Blue” engine — the 45-90kN (10,000-20,000lb)-thrust turbofan to be developed by Snecma, MTU, Pratt & Whitney and GE — had been announced. “We knew we had to respond to it,” says Poggi, “but we needed to find a partner”.

The next stop was Grumman. This had promise for the same reasons as before — an alliance with an established manufacturer of nacelles to create a global capability. “It suited us both very well,” says marketing manager Olivier Fagard, “because Grumman wanted to work with a European thrust-reverser company, to give it better access to Airbus. For us, there is the US market potential opened up by Grumman’s existing business over there. They also have considerable airframe integration experience.”

The agreement was limited to the Project Blue engine (which still is not officially launched), but Fagard is optimistic that it will go beyond that. Grumman produces nacelle components for the Fokker 70 and 100, Gulfstream IV, GE CF6-80C2 and Airbus A340. It also has extensive experience in composites, and in the acoustic attenuation of nacelles.

The two are “still defining how to work together”, says Fagard, but have already been on marketing visits to McDonnell Douglas, in the hope of gaining work on a Project Blue-powered MD-95, if the aircraft is launched. The Japanese YSX and Euroflag future European transport are other potential applications.

By far the largest proportion of Hispano-Suiza’s work today centres on thrust reversers for the Airbus A320 and A340. Originally, the majority of work was on the A320, on which Hispano-Suiza introduced the world’s first “door” type reverser, replacing the cascade type then common on high-bypass-ratio turbofans.

In December 1993, Hispano-Suiza celebrated the delivery of the 1,000th A320 thrust reverser to Rohr. During the year the company delivered a total of 226