FLIGHT International, 6]anuary 1979 9

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Thunder rolls on
IN 1977 Thunder Balloons announced
a complete redesign of its range. Now,
a year later, a new envelope produc-tion facility has been opened at Bruce Banks Sails in Southampton, and two new balloons have been introduced. It was logical to move the specialised work of envelope manufacture to Banks, which is a leading sail manu-facturer. To date six balloons have

been built in the 14,000ft3

production
area at Banks. Thunder's Leonard Street factory in London is being used to produce baskets and burners and to do balloon repairs, which can now be given the priority they deserve. This will also benefit Thunder, allowing the company to concentrate on pro-duction.
The A series of balloons has now been replaced by the Z type. The new envelope is much lighter than that of the old series, and the number of load tapes has been reduced by using a wider fabric. For example, a 56,000ft3 envelope built to the A-series specifi-cation has 28 load tapes, while the Z has only 20. A new form of construc-tion, based on sailmaking techniques, has reduced the amount of fabric used. Up to now Thunder has used an overlapping seam in the form of two U folds of material interlocked and sewn through, so that the stitch passes through four thicknesses of fabric. Now each piece of fabric is laid on top of the adjoining piece and then sewn with a double zig-zag seam. Thus the stitch passes through two thicknesses only, resulting in a signifi-cant saving of fabric.

The first Z type was delivered to Schroder Life Group, a British insur-ance company, during the early part of last summer. Some teething troubles were solved, and Alan Dorman won the British National Championships with the Z during September. The Z is available in the following sizes: 31, 56, 65 and 77,000ft3

, and is supplied with a plug
parachute rip panel as standard. After the success of Cameron's cheap off-the-shelf balloon, the Viva, Thunder has introduced the economy Thunderbolt, an eight-gore design with a parachute rip as standard. The main difference between the two compet-ing models is the fact that the Thunderbolt has an overhead basket frame as standard. The Thunderbolt is available in 42, 56, 65 and 77,000ft3

sizes, ranging in price from
£2,250 for a 42 to £2,850 for a 77. So far a 65 has been delivered to America and a 77 to a British club.

The other major change affects the baskets, A weight saving of 5kg has

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World balloonists

meet in Sweden
THE FOURTH world hot-air balloon championship takes place at Uppsala, north of Stockholm, from January 2 to 11. American Paul Woessener, cur-rent world champion, is defending his title against some 50 other competi-tors, three from the UK, three others from the US, and two from most other countries. The UK team consists of Alan Dorman, the current UK cham-pion, plus Colin Wolstenhome and Chris Kirby.

been achieved by reducing the thick-ness of the solid floor and the run-ners on the bottom of the basket. There has however been no reduction in the strength of the basket, as higher-grade materials have been used. Another innovation is the fitting of a dashboard above the fuel tanks. The instruments to be fitted are optional, but a typical layout would include an altimeter, variometer and an envelope temperature gauge. Space has been left for a 360-channel VHF radio, and the pilot light cut-off valve is relocated on the burner, having previously been placed on top of the fuel tank. The new position is favoured by the many pilots who like to have their hands on the burner for landing, when the pilot light must be turned off promptly to avoid a fire risk if a fuel line is damaged.
Receipt of an order has revived the Thunder Airship. Originally announced in January 1977, the airship had to take second place to other commit-ments. Now a Vs-scale model has been built and will shortly undergo flight testing at Cardington. It is hoped to have the full-size 150,000ft3

prototype
flying by next summer.

Top The first Z
type. Right Thunder
instrument panel
above the fuel tanks,
with (left to right)
variometer, envelope
temperature gauge,
altimeter and Ash
360-channel radio