INDUSTRY International

GERMANY'S AIRCRAFT INDUSTRY

By JOAN M. RIECK **Part 2**

Part 1 of this article, last week, explained the general organisation of the German industry. It described the facilities and work of the North German group of companies, and also those of one group—Bölkow—located in the South. Here the other Southern groups—Dornier, Messerschmitt and Deutsche Airbus—are similarly reviewed. Monetary conversions (DM/£) have been left at pre-devaluation levels in order to be consistent with those given in Part 1 of the article.

The Dornier Group, because it is very much a family concern—the whole of the capital, for example, is in the hands of Professor Claudius Dornier and his family, and the professor's sons occupy responsible positions within the group—has a general structure which is a little simpler to describe.

The parent company, Dornier GmbH, is the legal successor to the company originally founded by Professor Dornier in 1922 and occupies the same premises in Friedrichshafen on Lake Constance (administration, development and experimental work), Munich-Neuabing (quantity production) and Oberpfaffenhofen, near Munich (works airfield and repair shops). The other works owned by the company in 1945 were either lost (in East Germany) or sold (in Lübeck and Berlin).

Dornier GmbH has a capital of DM15 million (£1,354,000), and its managers are Dipl-Ing Claudius Dornier Jr, Dipl-Ing Silvius Dornier and F. Scheideler. Its activities cover the design, development and production of aircraft.

The other members of the group are straightforward subsidiaries founded by Dornier for certain specific tasks:—

Dornier System GmbH, Friedrichshafen, started in 1962, develops, produces, overhauls and sells rockets and related equipment and systems for use in space activities and is also active in management research and systems analysis. Its capital is DM2.5 million (£227,000), its managers are Dipl-Ing Silvius Dornier and Dr K. W. Schäfer, and its premises situated in Immenstaad and Langenargen, both near Friedrichshafen. It employs roughly 300 people. Recent contracts include, for example, payloads for Skua rockets (for the Max Planck Institute) and for the Black Brant III research rockets.

Dornier-Reparaturwerft GmbH is at the works airfield at Oberpfaffenhofen and is responsible for the repair and overhaul of Bundeswehr aircraft, including the Fiat G.91, Breguet Atlantic, Do27 and F-84, as well as the Boeing-Vertol H-21. The factory also produces Atlantic sub-assemblies. Capital is DM2 million, managers H. A. Fieser and K. Fischer.

Dornier International GmbH, Munich (capital DM3 million), is basically the group's sales organisation, managed by Dipl-Ing Julius Dornier. In addition, this company is responsible for final assembly of the Dornier family of STOL aircraft—Do27, Do28 and the new Skyservant—and for the maintenance and overhaul of civil aircraft. Production of the Do27, of which roughly 650 were built, has now ceased (though it could be resumed if substantial new orders were received); the Do28 run has passed the 150 mark and is still continuing; and the Skyservant, certificated early this year, has just gone into quantity production to meet US and other orders.

Finally, the wartime plant at Lindau, Lake Constance, was turned into the Lindauer Dornier GmbH and today makes textile machinery and special machines for the film and cardboard industries.

As a contrast to the STOL family of aircraft, the Do31 experimental VTOL transport developed with Defence Ministry funds (and for a time, with the co-operation of Hawker Siddeley) faces a more than uncertain future. The full-scale prototype equipped with two Bristol Siddeley Pegasus lift/thrust engines and two pods of four Rolls-Royce RB.162 lift engines at the wing tips was due to make its first vertical take-off towards the end of October 1967, followed later by transition flights. Present funds are sufficient to cover the planned flight test programme, running to about mid-1968, but then the Defence Ministry has "no requirement" for a VTOL transport, and nobody seems competent to finance the civil development on which Dornier has already produced a number of studies. However, provided the forthcoming VTOL and transition tests produce satisfactory results, NASA has announced its interest in conducting a series of tests with the Do31 prototype in Munich to investigate terminal procedures for the operation of aircraft of this category in densely populated regions (*Flight*, October 5). So Dornier feel that this might draw other people's attention to the potentialities of their design.

Another proposal put forward has been the Do324, a modernised version of the wartime Do24 flying-boat designed specifically for air-sea rescue work. Several countries have shown interest, but none seems to have any money at the moment.

In the helicopter field, Dornier is main contractor for licence-production of the Bell UH-1D for the Bundeswehr (the first was officially handed-over to the Army in August 1967) and is responsible for final assembly and flight testing.

Secondly, Dornier is offering a design of its own, the Do132, as possible successor to the Alouette. The semi-rigid hot-cycle rotor system used (hot gas from the powerplant being fed through nozzles at the rotor blade tips) was developed and tested, with entirely satisfactory results, under Federal Defence Ministry contract, but the rest of the helicopter is being built as a private venture. Flight testing is due to begin about the end of 1968.

Finally, another new type of rotor system, based on a pneumatic springing principle similar to that used in motor-car manufacture, is undergoing wind-tunnel tests under a Defence Ministry study contract.

"Aircraft construction is in the Dornier family's blood . . ." Prof Claudius Dornier, now 84, who founded the business in 1922

The outcome of Dornier's investigation into the effect of raindrops on aircraft at supersonic speeds aroused international interest, and as a result Dornier System has now received a contract from the US Navy to study the effects of raindrops on a range of radome materials for high-speed applications.

Aircraft construction is in the Dornier family's blood, and it would be difficult to find a company more determined to continue its tradition, no matter what the odds are against it.

The Messerschmitt Group, though the smallest of the three South German groups in terms of turnover and number of employees, today includes two more of the oldest and most illustrious names in German aviation history. The parent company is a direct descendant of the small works founded by Willy Messerschmitt as a young engineer is 1923, and Professor Messerschmitt today, at 69, is still not only a major shareholder in the group but also the company's leading figure on the design side. And one of the subsidiaries is Junkers Flugzeug- und Motorenbau, successor to the old company of the same name, whose main installations had been in East Germany and were therefore lost after 1945.