

with Sir Alan Cobham to manage the latter's own ventures and also acting as air correspondent to *The Bystander*.

Capt Ward was p.a. to the Director of Aircraft Production during the Second World War, then renewed his connection with Blackburn Aircraft, as London manager. He rejoined Sir Alan Cobham in 1947 to carry out Services' liaison and publicity for Flight Refuelling Ltd, then came back to Blackburn as London manager in 1950.

Bristol Aeroplane Director Sir Keith Murray, KCB, who recently relinquished the chairmanship of the University Grants Committee, has been elected to the board of the Bristol Aeroplane Co Ltd and will take up his appointment in the early summer of 1964.

Kuwait Airport Services G. N. Haden and Sons Ltd, PO Box No 14, 7/12 Tavistock Square, London WC1, have recently been awarded, in the face of strong international competition, a sub-contract valued at £510,000 for the complete mechanical services at Kuwait International Airport. The tender by Haden, one of 12 firms invited to submit, covers air-conditioning of numerous scattered buildings ranging from the control building to an isolated radar site, fuel oil storage tanks for diesel generators, airport fire mains, sewage pumps, large pressurization sets and distributing mains. Consulting and co-ordinating engineers are Messrs Frederick Snow & Partners.

USA

CF700 Agreement Signed International General Electric, overseas marketing division of US General Electric, has signed an agreement with Générale Aéronautique Marcel Dassault to provide CF700 turbofan engines for the Mystère 20. The order represents the first commercial application for this 4,200lb-thrust aft-fan version of the J85 turbojet. Dassault has announced a production line of 500 of the ten-passenger aircraft, of which 160 are to be purchased by Business Jets Division of Pan American World Airways for distribution in the United States, Canada and Latin America.

Testing of the first CF700 was begun in 1960. First application of the engine was in the Bell lunar landing simulator. Certification by the US Federal Aviation Agency is expected in mid-1964, and production engine shipments will follow shortly after.

Kollsman USAF Contract Kollsman Instrument Corp, Elmhurst 73, New York, a subsidiary of Standard Kollsman Industries Inc, have been awarded a contract by the Air Force Systems Command's Research and Technology Division, Wright-Patterson AFB, Ohio, for the development of a new gear generating system and an in-process control capability. The develop-

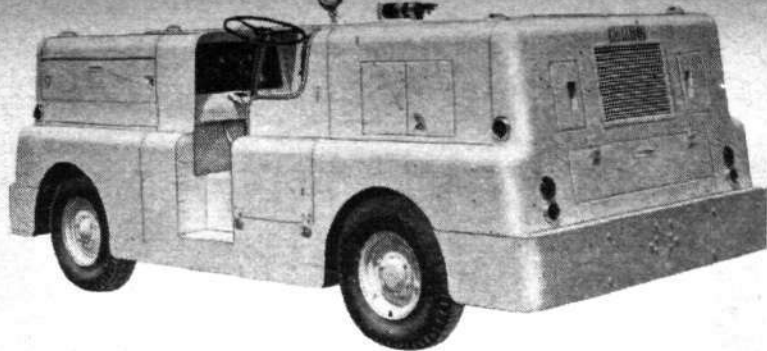
ment contract is directed by the Manufacturing Technology Division, Air Force Materials Laboratory. Objective of this development, it is stated, is a control system embodied in a gear generator continuously measuring errors and applying correction through feed-back mechanism to provide an accurate and reliable manufacturing capability which will produce fine pitch spur gears for use in complex aerospace systems.

The Kollsman president, Mr David B. Nicholson, has commented that "up to now, accuracy limitations of gear generating equipment has constituted perhaps the greatest single barrier to the development of guidance and control systems for aircraft, missiles and spacecraft." Reliability of these systems, he added, depends greatly upon the accuracy of fine pitch gears. Successful development of the Kollsman gear generator and measuring device would constitute a significant breakthrough.

The Kollsman design concept, it is stated, will provide an accuracy to three seconds of arc in the mid-range of diameter gears and five seconds of arc in the smaller diameter range. Diametral pitch range objective is 20 to 200.

Describing Seal Design The Advanced Products Co, 62 Broadway, North Haven, Conn, have recently published European editions of the seals design manual which describes in detail what Metal-O-Rings are; how they may be used; what variations in metals, platings and coatings are available and many other engineering details. These static face type seals, fabricated from tubing of various alloys and produced in a wide range of shapes and sizes, are widely used to seal liquids and gases under a wide range of temperature and pressure extremes and corrosive conditions. The manuals (in English, German and French versions) are available from R. H. Symonds Ltd, 47 Victoria Street, London SW1, UK representatives for Advanced Products Co.

Gemini Airspeed Transducer The new Type TP-350 airspeed transducer by Fairchild Controls (a division of Fairchild Camera and Instrument Corp), 225 Park Avenue, Hicksville, Long Island, NY) has been selected for precise airspeed measurement during the descent phase of Gemini flights.



Jetmobile self-propelled ground power unit by Motor Generator Corp (a Hobart Brothers affiliate) of Troy, Ohio. Power is provided by a Hobart salient-pole, revolving-field-type generator rated at 90kVA or 72kW at 0.8 p.f., 120/208V, 250A, 400-cycle a.c. driven by a V-8 International UV-549 engine of 187 h.p. The unit can also be supplied in a trailer-mounted version

With the Rogallo-type paraglider employed, to ensure manoeuvrability during landing operations, anticipated airspeed of the spacecraft during final descent stages is estimated as between 25 and 75kt; and in order to measure this slow rate of motion accurately a highly critical low-pressure system is required. The TP-350 is designed to measure changes in air pressure in the 0 to 1lb/sq in range; and for the paraglider, a unit has been designed to the exact requirements of 0 to 0.236lb/sq in d.

Selected by McDonnell Aircraft Corp, who are building the Gemini for NASA, as the airspeed transducer for the paraglider being developed by North American Aviation, Space and Information Division, the TP-350 is a potentiometer output type unit employing precision Fairchild potentiometer windings and wipers. It is 3.5in in diameter and 3in long and weighs approximately 2lb. Airspeed accuracy is rated at ± 3 per cent over the 25 to 75kt range.

Canada

Lightweight collapsible food-serving cart, 70 of which have recently been delivered by Timmins Aviation Ltd, Montreal International Airport, Dorval, Que, to TCA. Designed by the company and the airline in conjunction, they are believed to be the first of their type to be used on aircraft. When not in use, they can be folded flat for storage

