

ments is steady. But the successful selling of airliners, even by firms with well-established products, is not wholly a matter of dealing with inquiries: openings have to be sought, investigated and followed up hard and quickly.

The days when a route-analysis might take two men two weeks to prepare are—at Vickers at any rate—long past. While key technicians are thus tied up, other work goes by default; it is difficult satisfactorily to handle inquiries, let alone positively to encourage them by creative selling. The answer, Vickers found, was automation: and about 18 months ago a Ferranti Pegasus electronic computer was acquired for the mathematical services department at Weybridge. This equipment has enlarged the civil aircraft development group's capacity to an almost immeasurable degree—immeasurable because the group's output now includes work which it could not previously have even considered attempting. To be able to run off, in one afternoon, detailed capabilities of the Viscount 810 on 150 routes of a particular U.S. operator—as was recently done—provides some measure of the group's increased scope. Such a task, accomplished manually, would take weeks. The possibility of being able to call on an airline at 24 hours' notice with a detailed study of the Viscount or Vanguard on that operator's routes is now a workable proposition. Though airlines may take months to decide to buy new equipment, they are nevertheless strongly influenced by a manufacturer who can give them fast and efficient pre-sales service.

Pegasus is a digital computer, and probably one of the most popular British machines of its kind in service. Vickers' machine is now used till 8 p.m. or 9 p.m. five days a week, which leaves considerable capacity (night-shift and week-end) still in hand. Generally speaking, mornings are devoted to scheduled main-

tenance and programme testing, and the afternoons and evenings are spent on production. Input and output are in coded punched-paper tape form: the final decoded result comes from the teleprinter as a neat, foolscap-sized sheet.

About 40 per cent of the computer's time is devoted to route-performance or cost analyses. The group has programmed the capabilities, weights and performance of all Vickers' civil aircraft variants, in a way which takes care of any operator's foreseeable requirements—C.A.A. or B.C.A.R. performance rules, varying operating techniques, and so on. This part of the input into the computer provides the instructions (up to 36 items) and is followed by the applicable route data—headwinds, runway data, temperatures, etc.—about 30 items in all. As teleprinted, the output records for good measure the basic data assumed and presents the final route analysis in the form of take-off and landing limitations, sector-segment times, fuel consumed, speeds (to make sure V_{NO} is not exceeded), and appropriate weights.

Other uses to which Pegasus is put by the group are numerous. For example: (1) operating techniques can be optimized to produced minimum operating cost; (2) compilation of Operations Manual data can be done more quickly; (3) investigation of the effect of particular modifications on performance can now be more readily assessed.

Much call is made on the computer's time by Vickers design departments. Typical of the work recently done are: pressure distribution analysis of the VC.10's wing, and the calculation of lift, drag and moment coefficients for different incidences; estimation of VC.10 wing, tail and fuselage loads at varying speeds and heights, a five-hour computer job which, previously done manually, required 70 pages of output from three pages of information.

BREVITIES

PREVIOUSLY exempt from the scrutiny of the Air Transport Advisory Council, applications to operate circular tours by air must now receive Council approval. This is because of the similarity of some proposals to inclusive tour services.

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A Tu-104 is expected to attend the British Columbia centenary celebrations.

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Britavia announce that Mr. W. E. Hogsflesh, A.F.R.Ae.S., general manager of the company, has been elected to the Board.

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At Paris-Orly U.A.T. are to construct one of the biggest hangars in Europe. Capable of housing three DC-8s, it will be 525ft long, 117ft wide and 60ft high.

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An aircraft of American Airlines reported a near miss from a military trainer near St. Louis on June 10. Four passengers and two stewardesses were slightly injured as a result of evasive action by the pilot of the transport.

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Because of the cost of overhaul of T.E.A.L.'s Solent and a lack of modern navigational aids, the Coral Route service between Fiji, Western Samoa and the Cook Islands is to be discontinued in August.

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A new Dutch firm, the International Charter Aviation Company, backed by British, Dutch and German capital, has been formed to operate tourist charter services in Europe and across the Atlantic. There will be a tri-national management and the fleet will consist of three Vikings. Next year it is planned to operate Ambassadors.

Despite meat-strike pickets at Southend Airport, Air Charter's Bristol 170s have brought at least 500 tons of meat from Rotterdam in the last few weeks.

Eagle Airways are offering a dictaphone service to businessmen on their Brussels, Frankfurt, Hamburg and Copenhagen services.

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The Gibraltar - Tangiers service was jointly operated by Gibraltar Airways and Royal Air Maroc as from June 15.

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A DC-6 of Aerolineas Argentinas, with 16 passengers on board, was totally destroyed after a forced landing in four feet of water near Rio de Janeiro on June 10. Seven people were injured. This was the airline's first DC-6 mishap in ten years.

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Ozark have been evaluating the Viscount 790, Caravelle, Allison-Convair and F.27 as replacements for their present DC-3 fleet. A decision is expected shortly.

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In the first four months of this year Icelandair carried 57 per cent more passengers (total 4,372) than in the corresponding period of 1957.

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S.A.S. have increased their Caravelle order from six to 12, making a total of 32 Caravelles now sold. They retain an option on 13 more.

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A Britannia 305—G-ANCD, in Cubana colours—was recently demonstrated in Madrid to officials of Iberia and later to government and airline officials in Portugal. The secretary-general of Iberia, Snr. Juan Viniestra, said that "the demonstration left a memorable impression, but at the moment the acquisition of Britannia aircraft does not enter into our plans." The aircraft flew on to Cuba *via* the Azores.

As part of the C.A.A. certification programme, the original 707 has recently been carrying out flight tests to determine the de-icing capabilities of the J57 powerplant. The inboard pod, seen with its spray-rig, is the production version.

