

Management Engineering Streamlines RCAF Operations Stretches Defence Dollars



G/C F. R. SHARP

LIKE COST-conscious industry the RCAF now employs a group of management specialists to ensure the efficient use of its manpower and equipment. Since its inception less than three years ago the group has, with the co-operation of those involved, effected service improvements that are stretching the defence dollar with increased efficiency and production.

Called the Directorate of Management Engineering, it functions in much the same way as a firm of business management consultants to private industry. While primarily concerned with streamlining RCAF operations it also advises officers in executive positions on sound management techniques.

Varied Studies: Management Engineering studies are as varied as the problems themselves. They have ranged from examining the procedures required in issuing items of airmen's clothing, failure rates in RCAF training schools to increasing aircraft maintenance efficiency. The results in every instance have more than justified undertaking the study.

Set up in August 1955 by the Comptroller's Division — the RCAF's administrative and financial watchdog — Management Engineering has grown slowly because desirable members were not always readily available. When completely organized by the end of this year it will consist of 16 officers, four civilians of officer status and clerical staff. It is headed by Group Captain F. R. Sharp, a wartime 408 Bomber Squadron commander and who, prior to his present appointment, was commanding officer of the RCAF's station at North Bay, Ont.

The Directorate brings a wide range of academic and practical knowledge to bear on problems. In addition to business and service experience mem-

bers qualify in fields such as engineering, education, psychology, philosophy, accountancy and mathematics, to name a few. Group Captain Sharp, a graduate of Royal Military College, attended the University of Western Ontario's School of Business Administration to prepare himself for his job.

CF-100 Operations: Early in its history Management Engineering cut its analytical teeth on a large scale project when it was invited to conduct an extensive study of CF-100 operations in Canada.

Post war acquisition by the RCAF of the powerful all-weather interceptor aircraft, the first of its kind, had posed many problems. While these had been met there remained a feeling that the solutions could be improved upon. ME decided, in the interests of saving time and money, to conduct a probe at Station Uplands, Ottawa, close to directorate headquarters. The results could be applied to all CF-100 squadrons across Canada.

As a prelude to the study, which was conducted by Wing Commander H. G. Marriott, deputy director, educational ground work was carried out. The object and methods of the study were explained to all station personnel and their co-operation was invited. Without full co-operation, it was stressed, the study could not succeed. Some reluctance was encountered at first, as was expected, but it soon disappeared as everybody was "brought into the act."

Happy Hunting: In the months that followed Station Uplands was the statisticians happy hunting ground. All movements by air and ground crews during duty hours were clocked, tabulated and scrutinized. In all some 340,000 different records of airmen activity were assembled and analysed, numerous crosschecks were made to ensure

that the information was correct. Spot checks were made to confirm that an airman, who proceeded on some diversionary activity, actually had that time recorded.

In addition, information on aircraft location and status, weather conditions, and nature and frequency of snags and a host of other data were compiled. From out of this welter of facts and figures patterns soon took shape. These were plotted for study. When the whole picture became clear the probers sat down to consider the results and to frame their recommendations.

While more than 10,000 man-days went into the CF-100 study, Group Captain Sharp pointed out that the decision to undertake a project of this size was determined by the facts that the problems were of vital importance to a major RCAF operation, and that estimated savings of hundreds of thousands might be realized.

More Time: The study found that CF-100's at Station Uplands were capable of flying nearly 10% more hours monthly. At the same time it was determined that technical personnel could be reduced by some 20%; all this provided certain changes and improvements were made. These have since been effected at the CF-100 stations across Canada. The resultant release of manpower has enabled the RCAF to meet other pressing demands and the increased operational use of aircraft has meant a greater degree of flexibility.

There have been other benefits from this and other studies that do not readily lend themselves to dollar and cents tags, it is pointed out. These include increased defence potential, increased morale resulting from a more equitable distribution of the workload,

(Continued on page 100)

Bancroft Industries LTD.

OFFERS FROM STOCK...

- **COMPLETE RANGE OF
AIRCRAFT STANDARD
PARTS**
- **ACCESSORIES**
- **BATTERIES**
- **FLIGHT AND ENGINE
INSTRUMENTS**

See us for
**AIRCRAFT
LEASING**
**DC-4, C-46, C-47
OTTER - BEAVER**

**COMPLETE
INSTRUMENT
OVERHAUL FACILITIES**

Bancroft Industries LTD.

**851 MILL STREET
MONTREAL P.Q.**



Telephone WE. 3-3605

already on order.

The Government gave the industry no forewarning that the Astra and Sparrow programs would be cancelled. Canadair says the company's missile team, built up since 1951, is being re-assigned to other work.

MANAGEMENT ENGINEERING

(Continued from page 41)

better co-ordination and control, more time for essential work because of elimination of duplication. But most important, perhaps, is the increased efficiency resulting from the employment of the right men in the right job, in the right numbers with the right equipment.

Because of its achievements to date the Directorate of Management Engineering appears to have an assured future. Already it is confronted with enough requests for studies to keep it busy for five years. High on the priority list are studies of the newly-acquired Argus aircraft . . . the RCAF's answer to snorkel and atomic-powered submarines . . . and management training requirements for RCAF personnel.

BRITANNIA SERVICE

(Continued from page 74)

The Britannia Orient service involved considerable preparation. First item on the agenda for flight crews was a series of "paper flights"—hypothetical flights over the long-stage airway, which were an essential part of the intensive aircraft and route familiarization program.

During the paper flights, which were designed to supplement practical experience, all chart work necessary during an actual flight was duplicated. Thus before they began their scheduled flights on August 24, CPA's Britannia pilots had logged twice the legally-required hours on the Orient route.

Concomitant with the paper flight training were the many hours that Britannia flight crews spent in CPA's new \$300,000 Britannia simulator.

The final stage in the preparation for North Pacific Britannia operation was a dry run over the route for five full flight crews, to familiarize them with turboprop operation into all ter-

minals and alternates. Each pilot aboard made at least one landing during the round-trip flight, which left Vancouver on August 12.

Britannia service on the North Pacific marks a more than usually spectacular "first" for CPA; it is the first time commercial turboprop aircraft have been put into service on the Pacific, and it is the first time that air travellers have been able—due to vagaries of the International Dateline and the speed of the Britannia—to arrive at their destination before they leave their point of embarkation. By crossing the Dateline, and thus "gaining" 24 hours, CPA's Britannias leave Tokyo at 6:00 pm and arrive at Vancouver at 4:00 pm the same day—according to local times.

MERCY MISSIONS

(Continued from page 44)

always on the alert to sight evidence of fire and notify Lands and Forests stations of its location. They are of course called into service to help fly men and equipment to the site of a serious outbreak, and since 1953 a great portion of 321 miscellaneous flights have been in the protection of the valuable forest regions.

Air disasters occur all too frequently in the mountainous regions of the West Coast which necessitate intensive air search of dangerous wind-swept mountain peaks and valleys for survivors or traces of wreckage. These tragic operations involve a great deal of risk to the search aircraft, but constitute a high percentage of the total 346 incidents and 24,944 hours flown investigating aircraft accidents. Once again the extent of their contribution may only be judged by the log of long hours flown and the number of contacts made by the keen-eyed aircrew.

AIRPORT IMPROVEMENTS

(Continued from page 64)

vices for the collection and processing of weather data," Mr. Hees said.

There had been a gradual but steady increase in pilot training. Number of student pilots being trained eight years ago was 1200 annually. This increased a year or so ago to 1600 and it is expected to pass 2000 this year.

In his report to the Commons, Mr.