Annex A

### TRAINING COURSE IN INDUSTRIAL ENGINEERING (JANUARY 1999)

#### METHODS AND PROCEDURE IMPROVEMENT

Method study as a tool for productivity improvement. The basic approach, covering the identification of suitable areas for investigation that maximises the benefit whilst minimises the effort. The recording techniques and their use. Workplace layout. Examining, developing, implementing and maintaining improved methods and procedures, including a problem solving methodology. An introduction to project planning.

4 hours

# PRACTICAL WORK RELATED TO METHODS AND PROCEDURE IMPROVEMENT

- Practical on Project Planning
   3 hours
- Practical on estimation staff levels in variable work situation (closely aligned to postal work).
   3 hours
- Computer simulation of a service counter and determining the optimum number of service channels (closely aligned to postal work).

  4 hours

## TIME STUDY PRACTICAL (including Production Study)

Use of the stopwatch; flyback, cumulative, differential and selective timing methods. Element breakdown and timing. Performance rating using the 0-100 B.S. system. Calculation of the timing error. Time study practice using IMS examination films.

This section of the course will enable participants to gain the knowledge necessary to conduct a time study to a professional standard of practice.

15 hours

### **ACTIVITY SAMPLING**

The activity sampling procedure using both random and fixed time intervals.

Determination of the sample size. Application to methods improvement and work measurement.

3 hours

### **ACTIVITY SAMPLING PRACTICAL**

Computer simulation of a service centre to determine a breakdown of productive and non-productive time, and how productivity can be measured for each section of the service centre and in total.

4 hours

#### INTRODUCTION TO PREDETERMINED MOTION TIME SYSTEMS (PMTS)

PMTS as a tool for methods improvement and work measurement. A basic appreciation of the generic family of MTM systems, namely MTM-1, MTM-2, MTM-3, MTMX. Their applications, advantages and limitations.

4 hours

TOTAL HOURS 40 hours

\*委員會秘書附註:本文件只備英文本。