

CONCLUSIONS

It has been common practice to apply computers only to the routine calculations of swings. The results indicate that a computer can be used directly to make accurate forecasts, thus becoming something more than just a calculating machine at the elbow of the political expert.

More interesting is the fact that a satisfactory method was devised in this case for rapidly assimilating and checking relatively unreliable data. Data checking is of

vital importance in computer applications, and it may be that similar methods could be usefully applied in other fields.

ACKNOWLEDGEMENTS

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REFERENCES

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*LEO Automatic Office at the Ministry of Pensions and National Insurance*

The report is now available on the commissioning tests carried out recently on the LEO Automatic Office installed in the offices of the Ministry of Pensions and National Insurance in Newcastle.

The tests were set by an expert body formed to advise Government departments on technical standards of computers that they might be considering.

The test period was the whole week of 2-6 November, starting at 9.30 and continuing until 17.30, save on the last day when work stopped at 17.00. A series of 9 tests was run repetitively, 5 of them diagnostic test programs designed to examine exhaustively the correct functioning of all aspects of the equipment, and 4 of them actual programs taken from the payroll suite that is planned to be the first operational work taken over by the installation.

The trials were under control of the Ministry personnel, trained by LEO to operate the equipment. Careful note was taken of any excess time on these so as to dissect it between that which was attributable to a fault in any part of the computer assemblage and that which was due to operational inefficiency of any sort. Operational inefficiency included data-preparation faults, such as mis-sorts of cards, feeding of stationery, and any odd minutes lost through operator mishandling.

The final outcome of the week was as follows:—

	<i>Hours</i>	<i>Minutes</i>
A. Good running time	37	44
B. Time lost due to technical causes (including re-runs)		51
C. Time lost due to operating inefficiencies		54
	39	29

The criterion set was based on  $A/(A + B)$ . On this basis LEO achieved over the whole exacting week a result of 97.8%, which very satisfactorily exceeded the standards looked for.

The equipment includes a LEO II Computer with a 16,000-word magnetic drum in addition to the 2,048-word high-speed store, three concurrent punched-card input channels with provision for a fourth, two punched-card output channels, and a printer output channel.

Following the normal LEO arrangements, the programming of the first suite of jobs has been proceeding side by side with the building of the equipment. Ministry programmers, selected in all cases from existing Ministry staff, and trained by LEO, form the greater part of the team at work on the suite, but the responsibility for the successful completion of the suite has been undertaken by LEO Computers Limited. The work has been supervised by a Senior Programmer from LEO, who has combined the technical progressing of the jobs with the further practical training of the Ministry programmers.

It is planned that the first jobs will commence operational running in January and the load will steadily build up until all the 3,000 weekly paid officers stationed at Newcastle, and the 20,000 monthly paid officers at local and regional offices scattered throughout England, will be paid through the LEO installation. Other work planned includes the production of analysed health statistics, derived from accident and sickness records, and the control of issue and receipt of National Insurance benefit claims.