



No.11

ELLIOTT-AUTOMATION IN AVIATION

December 1968

Above. Three of the Emperor's guards perform a snake dancing act. Left to right they are Ralph Jeffrey as Ali Baba; Ken Hyde as Sied Ali and Len Milton as Acmed Meese. Bert Snoswell, Emperor, and his bride Widow Twanky, played by Ken Davies, look on en-thralled.

1968 Children's **Xmas Party**



More children than ever before enjoyed the activities of the 1968 Children's Christmas parties. This year more than 1400 children attended the two parties held in the works canteen on November 29 and December 7. Many willing hands were around to keep them under control during the pantomine, tea, and as they went through the fairy grotto to receive their presents from Father Christmas. Above, are some of the children joining in the fun of this year's pantomine "Aladdin". More pictures inside.

Export Achievement Recognised



THE QUEEN'S AWARD TO INDUSTRY

OR those who were not able to attend the presentation ceremony for the Queen's Award to Industry on November 13, pictures here and

on page 3 reproduce the atmosphere of that memorable occasion. The Award was made to EFA earlier this year specifically for export achievement during 1967, a year which saw EFA equipment going to Sweden, Australia, into exported One-Elevens and, especially, to the

The scroll and the plaque marking EFA's activities.

ae Award were presented on behalf Lord Cornwallis was able to bring The scroll and the plaque marking the Award were presented on behalf of the Queen by Lord Cornwallis, Lord Lieutenant of the County of Kent, in the presence of about 150 EFA people, local personalities including the Mayors of Rochester, Chatham and Gillingham, and representatives of our American customers Lockheed Georgia and LTV.

Combined Efforts

Lord Cornwallis was welcomed by

Mr Robert Telford, Managing Director of Elliott-Automation.
Mr Pateman, Deputy Chairman and Joint Managing Director of EFA, accepted the Award and emphasised that it recognised the combined efforts of everyone in EFA and also of the local authorities and business firms, who had supported. business firms who had supported

Lord Cornwallis was able to bring some appropriate personal history to the occasion by noting that he forebears had been directly involved in the defence of the American colonies before they broke away from Britain to form the United States. He also lamented the fact that he had not been able to use the kind of equipment now produced by kind of equipment now produced by kind of equipment now produced by EFA when he was flying RE.8 reconnaissance aircraft during World War 1. Mr Pateman was able to tell him that Elliotts had in fact produced the produced the produced the state of t thousands of flight instruments, engine r.p.m. indicators and bomb sights between 1914 and 1918. Some

signts between 1914 and 1916. Some of these are illustrated on page 4. Two flag poles were specially set up at the Tower entrance for the occasion and the Queen's Award flags are now being flown regularly.



Mr Robert Telford, Managing Director of Elliott-Automation, holding the Queen's Award scroll, Mr Jack Pateman, Deputy Chairman and Joint Managing Director of Eff. holding the insignia, and Lord Cornwalls, Lord Lieutenant of the County of Kent, who reade the formal resentation.

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TACKLING THE **RUSH-HOUR**

Plans Afoot

By the time these words appear some firm decisions may have been taken about tackling the midday and evening rush-hour jams in the access road and the canteens.

The solution may lie in staggering working hours so that the traffic density is significantly decreased and more space becomes available in the canteens for some of the people who at present leave the works area for lunch.

This is obviously not a simple project, but any solution will save considerable personal time and strain.

Computer use rapidly increases

Wiring **Programs** Done for Concorde



BRENDAN BALHETCHET leads a team of more than 20 young computer programmers, operators and data preparation staff, whose average age is only 22, working on the increasing number of projects undertaken on the Elliott 503 computer at Rochester. Their job may sound mysterious, but it is making an increasing practical contribution to the more effective operation of EFA's complex business.

Under the supervision of Dave King, chief of systems and programming, several new operations have been successfully programmed and many more are planned for next year.

503 computer was commissioned in September, was a Concorde wiring interconnection schedule for TACD. Given basic wire termination in-formation the system provides a formation the system provides a comprehensive cross-checked list of electrical connections between the numerous Elliott "black boxes" in Concorde. All programmes were written in three-and-a-half months, right on schedule, by 21-year-old Jackie Hutchinson. A further development of the system is planned for completion by March 1969

for completion by March 1969.

Also completed are the first two stages of a Library Information Retrieval System which makes it possible for people to find reports and specifications even when they do and specimentons even when they do not know the exact titles or refer-ences. Subjects are listed under descriptive "keywords", and the computer will produce in seconds a full list of all material available

The mystery of the missing car aerial

Mr. H. Moore, Security and Safety Officer, is happy to report that the car radio aerial reported stolen from Dick Barltrop's car has been recovered intact.

The mystery was solved by an unscientific member of the staff who knew how to raise and lower car aerials of this type.

type.
Dick Barltrop now knows what the small cylindrical key on his key ring is for.

The first production run after the on those subjects. This can save hours of searching. When the system is fully operational, MACD technical library's stock of more than in this way and the efficiency of information retrieval will be virtually

First Pay-roll Run

"Spot-on accuracy" was the key-note of the first run of Elliott's Rochester payroll on our own 503 computer during November. Trans-ferred from the computer at Bore-hamwood, the payroll provides Rochester accounts department with a full wage analysis and produces all hourly, weekly and four-weekly pay slips. From now on, the payroll and ATE's Contract Costing programmes will be run on the Rochester 503 every week.

This adds to the new computer

activities and, to cope with the increasing demands for computer time, two-shift operating has been in force since November 18. Two teams of operators work week by week either from 7.00am to 3.00pm or from 2.30pm to 10.30pm. This will be extended to three shifts in the

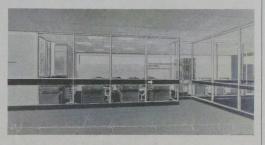
New Offices

Since the completion of the modern computer room on the mezzanine floor of tower 3, work has started on an equally attractive room for the data preparation machinery. Offices for personnel and a staff room Offices for personnel and a staff room for computer operators are also planned. Operations supervisor, Alan Bacon is responsible for planning the use of the equipment and arranging staff schedules.

Other programs scheduled for early next year include a costing operation for AEID and a comprehensive index of standardised prehensive index of standardised prehens

hensive index of standardised part numbers for EFA Central Codifica-tion Department.

from left to right, Bryan Young, Tony Bennet, Roland Pilcher, Doug Long and opera-tions supervisor Alan Racon



Artist's impression of the new machine and punch room being built next to the existing

EFA AIRWAYS

New Fleet-and a Trials Aircraft

THE EFA aircraft fleet has now been rationalised, with two full-time Aero Commanders—a 680 and a 680F for the spotters—replacing the former mixture of chartered Piper Aztecs and one Aero Commander. Chief pilot Arthur Southall and his colleague Alan Humphries are already launched on winter operations in poor visibility and early darkness.

The pattern of flights changes all the time. Now that the frequency of flights to Toulouse has reduced there are still many continental visits to supplement the flights to airports all over England.

New Secretary

Mrs Beryl Kirk is now secretary to the company pilots, replacing Mrs Celia Barton who left in August. Another, and less known flying

operation now getting under way is the Varsity based at West Malling airfield, south-west of Maidstone This aircraft is being used for the early development flying of new navigation systems.

"In the Field" **EFA SERVICE REPS**

N support of the equipment supplied by EFA to foreign customers, service representatives are now active in most parts of the

GET AROUND

the state airline Tarom during the summer, John Bass (AS&RD) is now based in Berlin looking after the autopilots in the British European Airways BAC One-Eleven 500s, which offi-cially went into service in Germany last month. This is a highly competitive area where Pan American have been operating Boeing 727s with automatic landing systems in West Germany and on the key prestige route to Berlin. The One-Eleven and its automatic landing system are specifically designed to compete with PanAm.

In Europe and U.S.A.

TACD have worked hard to get the equipment delivered in time, because the aircraft was delivered well ahead of schedule. The basic autopilot and approach system are in operation. Category 2 approach equipment for landing in very poor visibility is following and the full touchdown capability will be added shortly. Ray Christianson, who supported One-Eleven autopilots in the USA, have been replaced of Tules Obless.

One-Eleven autopitots in the USA, has been replaced at Tulsa, Okla-homa, by Peter Clarke. Ray rounded off his stay with a tour of South America and should be back at Rochester by the time these words

Lewis has been looking after EFA equipment for Phantoms with McDonnell Douglas at St Louis, Missouri. That factory recently delivered its 3,000th F-4 Phantom fighter, with production for all customers now running at more than three aircraft per working day!

While John Bass was clear of Rumania well before the Czechoslo-vakian trouble started, Frank Shields, Assistant General Manager respons-ible for service and repair, decided not to cancel a planned holiday in Bulgaria at the height of the troubles, but found that they had no significant affect on the local holiday business



One of EFA's Aero Commanders on the apron at Turin Airport during a visit earlier

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April 2, 1910, is the date of this front cover of "Flight" magazine. Elliotts claimed that their r.p.m. gauges were fitted "in the principal flying machines".

AVIATION NOT NEW TO ELLIOTTS

Airborne Equipment Produced in WW1

THE Aviation Division of Elliott Brothers (London) Ltd, which expanded to become EFA, by no means marked the beginning of Elliotts involvement in aviation. During the early part of this century, when the first "aviators" were starting to fly in Britain, Elliotts applied its established instrument-making ability to the new aeronautical world.

Advertisements, written reports and pictures, which sound rather weird in our present world of computers and microcircuits, described Editors. "Engine Revolution Indicators, indispensable to all aerocraft and motor boats". In one paper, Elliotts claimed that a sun compass and the related tables would be more Advertisements. written reports effective than a magnetic compass for cross-country flying. It was implied that the earth's magnetic field became too weak at altitude to be detected by

a magnetic compass.

When speedometers were required by law in motorcars, Elliotts won orders to supply them for the early

Rolls-Royce cars.

By 1910, Elliotts were able claim in a front page advertisement in Flight magazine that their engine revolution indicators were "fitted to the principal flying machines" of the

Production World War I instrument panel.





Another Elliott advertisement from a pre-

Real volume production came with World War 1, when Elliotts produced r.p.m. indicators and clinometers in large numbers. One of these was preserved as a paper weight for nearly 50 years before it was reconditioned by FID and supplied for the Vickers Gunbus replica flown

Elliotts also produced in quantity a complete flight instrument panel mounting a clock, an altimeter reading up to 6,000 ft., and airspeed reading up to 5,000 ft., and airspeed indicator reading up to 90 m.p.h. and an engine r.p.m. indicator reading up to 2,000 r.p.m.—hardly the range of performance with which we are dealing today. dealing today.

Some of this equipment can be seen in the Science and Imperial War Museums, and more of it will in due course be featured in the new RAF Museum at Hendon.

Apprentices Keep Active

With Driving, Skating, Cycling, Darts

THE apprentices don't spend all their spare time making rafts, although specialised craft do attract attention. The apprentices association organised quite a selection of off-duty activities, which have recently included another car treasure

The apprentices darts team is doing exceptionally well this year. Competing against teams from many

Competing against teams from many local engineering firms, the apprentices had lost only one match when this issue went to press.

Martin Doughty, a second year apprentice, and member of the recently formed Velo cycling club, made the headlines when he became the 1968 Junior Cycling Club Champion. At a presentation revening held. pion. At a presentation evening held at St. George Hotel, Chatham, on November 2, he received the winner's cup for the Junior 30 Mile event as well as the Champion's Trophy.

Treasure Hunt

The skating episode was an outing by 42 apprentices to Streatham Ice Rink, when they found that ice skating was not as simple as it looks. Miss Jean Hardy, secretary to Apprentice Training Officer Ernie Free, had told them that it was easy, but there were sufficient bruises to contest her opinion.

A car treasure hunt earlier this

year was so popular that a second event was held on October 27, event was need on October 27, although limited funds made a prize impossible. The clues led drivers from the factory along country lanes to the well known "Ringlestone Arms" near Maidstone. Eleven cars competed and only two failed to their target in time. Colin ow, with Paul Randall as Sparrow, with Paul Rar navigator, were the winners.



The overnight demonstration by Pat Arrowsmith and her pacifist The overnight demonstration by Pat Arrowshill and in pacinist group outside Elliott-Automation's London head office on November 3 and 4 was much more modest than had been expected. Here, the demonstrators spend the last hours on the pavement, with a row of policemen between them and the front door of 34 Portland Place. Work went on as usual.

LADIES NATIONAL JUDO SUCCESSES

Elliott Judo Club **Win Top Awards**

ELLIOTT Judo club members won four of the top awards in the British Judo Championships held at the Harry Mitchell Sports Centre, Birmingham on October 26.

Mrs. Jean White, holder of the black belt, became the new ladies British Judo Champion by defeating five other black belts in five separate

Colin Murray recently resigned as Chairman of the Association when he started work with Elliotts at Lewisham. Derek Burgess has been acting chairman pending the annual

general meeting in January.

three-minute contests. Close runner-up for the title and British Cham-pion's Trophy was Marie Miller, also an Elliott club member. More honours were gained for the

Elliott club when Harry Smith led the winning three-man team in the team championships. He was also runner-up in the individual middleweight

More than 300 contestants from all over Britian competed in the championships.

MORE PARTY FUN

Aladdin, staged by members of Elliott Social Club Committee and directed by Jim Collins, Elliott Social Club Secretary, was as usual a



Above. Getting down to more important things are some of EFA's children, as they tuck into jellies and cakes after the pantomime.





tradition in aviation /ww.rocnes

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Mr Robert Telford with the mayors of the Medway towns. Left to right, they are Alderman H. H. Duckett, Mayor of Chatham, Miss Gloria F. Sladden, Mayor of Gillingham, and Councillor C. W. Frid, Mayor of Rochester.

Praise for Macvest

Elliott Investors in the News

THE 1967-68 performance of Macvest, the Elliott investment club reported in the September issue of *EFA News*, gave rise to a series of reports in the last three issues of "Stockholder", the national periodical of the investment club

movement.

The September issue of the periodical contained a full-page write-up on the report, followed by extensive comments in subsequent issues. "Stockholder" was impressed by Macvest's performance and commented favourably on the techniques evolved by the club for their financial operations.

DRAMA AT ROCHESTER

TONY SHEARER, ADD drawing office, hopes to find enough potential or experienced actors amongst Elliott personnel to form a drama section of the Elliott Social Club.

At least one member of the cast wonders whether stardom in the children's party pantomime qualifies as drama or riot control.



Talking to Lord Cornwallis is Mr Larry Montgomery, Manager of C-5 Electronics Purchasing Department of Lockheed Georgia.



Alan Penny (AS&RD) and Richard Cummings (TACD) busy eating, while Diane Firth (AS&RD) keeps an eye on the cameraman.



FID seem to be claiming that they work, eat and sleep with air data computers, Left to right in the foreground are Chris Frost, newly appointed divisional manager, John Spinks and Roger Massey.

QUEEN'S AWARDPRESENTATION



Greeting Mr Hub Wellborn, of LTV (centre) are Ken Warren, Marketing Manager (left) and Brian Wolfe, Manager of ADD.



George Bull (MACD) on the right adopted a determined stance facing Charles Lyles (Lockheed Georgia) on the left. Between them are Isobel Luckhurst, Rita Edwards and Martin Polley (MACD).

Picture wins carver

GAY LANCASTER (EACV) won third prize in the Kodak colour slide competition organised by Feathersones of Chatham.

Gay, chairman of Elliott Camera Club and responsible for many of the pictures in *EFA News*, took his prize-winning slide, called "Silhouettes", at one of the Camera Club's studio evenings. It was placed third out of 400 entries and Gay was presented with an electric carving knife.

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