

ALAN MARSH MEMORIAL TRUST FUND

*For the advancement of education and encouragement
of the science of helicopter flight*

The Alan Marsh Medal

(Awarded to a British Pilot in recognition of outstanding
pilotage achievement)

The Executive Council of the Helicopter Association who selects the recipient for the Alan Marsh Medal has found its task extremely difficult, as in their opinion there are many pilots in this country who meet the requirements laid down in the Trust Deed, and who are equally worthy of receiving the Medal. They have requested the Trustees to review and define more clearly the terms under which the Medal should be awarded, and therefore no presentation has been made this year.

The Alan Marsh Award

(Awarded to a British student who has shown exceptional ability in technical
study in the rotary wing field)

ERIC RAYMOND KENDALL



The Awards Committee were pleased to select Mr E R Kendall as the recipient of the 1957 Award. In 1955 he was nominated to The College of Aeronautics, Cranfield, by the S B A C, and has just completed a two year course, specializing in helicopter aerodynamics, in which he has shown exceptional ability. Previously he had been an apprentice with Saunders-Roe and he has now taken up an appointment in the helicopter division of that Company. Under the terms of the Award, Mr Kendall has undertaken a short helicopter flying course at Air Service Training, and his impressions of this course are given on page 292.

The Trustees wish to acknowledge the following donations which have been received for 1957 and for which they are most grateful, especially to

those firms and individuals who have taken out Deeds of Covenant

	£	s	d		£	s	d
B Ashkian		8	6	*Helicopter Sales Ltd	5	0	0
*Bristol Aeroplane Co	28	15	0	Norman Hill	2	0	0
J A J Bennett	3	3	0	*J W Richardson	5	0	0
*J Cameron	2	2	0	*J V Roberts	2	0	0
*J Fay	2	0	0	*Shell Mex and B P	50	0	0
*R Hafner	5	0	0				

* Denotes payments under Deed of Covenant

Further contributions are needed and cheques should be made payable to the Alan Marsh Memorial Trust Fund and sent to the Association's Office Full details of the Fund and Deed of Covenant Forms are obtainable on request

From the Slide-Rule to the Cyclic Stick

by E R KENDALL

As an aerodynamicist, my impressions of learning to fly a helicopter are perhaps a little different from those of a fixed wing pilot and in this note I shall attempt to describe my behaviour in the somewhat new environment and present my views on the benefits which I have derived from a short course of pilot training

The course, which was sponsored by the Alan Marsh Memorial Trust Fund, and which took place at Air Service Training Ltd, Hamble, comprised five hours dual tuition in a Hiller 12C helicopter and several hours of ground technical instruction

During an initial discussion with S/Ldr Webb, who was to be my flying instructor, it was decided that although I had previously received a few hours *ab initio* pilot training in Aiglets, I should spend the first two days becoming acquainted with the aircraft in which I was to fly I attended lectures given by Mr Stephens who dealt with fundamental helicopter aerodynamics and details of the Hiller design I found the lectures interesting, particularly since emphasis was given to the pilot's point of view—in fact, during the lectures, almost as much time was spent in the Hiller cabin as in the classroom The clear physical explanations of certain phenomena were quite refreshing and I welcomed them as useful supplements to the mathematical arguments with which I was already familiar

On reflection, I feel that the initial ground instruction coupled with vivid memories of my first hour of fixed-wing training, gave me some indication of what to expect during my first helicopter flight

In forward flight, I was given charge of the cyclic stick and I did my best to stabilize the aircraft The result was certainly not good but I found that

with much concentration, I could manage I took turns at the individual controls to find their effects and was then allowed to try a few exercises which required co-ordination of all controls At first, I found them to be very difficult and frequently had to be assisted by my instructor

Thus with my eyes glued to the instruments and perspiration on my brow, I wrestled through the first lesson

In the lessons which followed I learned to judge the rotor speed by its beating sound and changes of forward speed by changes of attitude—this enabled me to “get outside the cabin”

My first attempts at hovering were hopeless and improved only towards the end of the course I was told that my slow response coupled with a tendency to over-correct, was the cause of the perilous state in which I found myself after a short period at the controls

During the course I tried my hand at the many manoeuvres which are possible only in the helicopter and in general the experience did much to impress on me not only the potential of the helicopter but the need for improvement of its stability characteristics in hover and at low forward speeds

In an attempt to summarize the benefits which I have derived from this experience I will say just this—I have been permitted to sit in the cockpit and try things myself Now I look upon the improvement of helicopter stability not just as a desirable feature but as a pressing necessity I believe that this valuable lesson at the “cyclic stick” will stand me in good stead in my future work on the “slide rule”

In conclusion, I take this opportunity to express my gratitude to all at Air Service Training Ltd, who helped to make my course an interesting one and to the Alan Marsh Memorial Trust Fund Committee for giving me the chance to proceed some way across the bridge between theory and practice

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