

The requirement is not confined to unpressurized aircraft. In view of their higher cruising levels pressurized aircraft might be considered to be outside the scope of these arguments; but they still have to avoid mountains, especially when going up and coming down, and it is in these phases of flight that the accidents are most likely to occur. Since also the functions of the various charts overlap, and en-route charts are often used in a terminal phase, the need for relief applies not merely on some of the charts, but on all.

The idea that all the above charts should show layers may be resisted by the production agencies, but if the requirement is here correctly described, it should be accepted: the technical means to satisfy it will in due course be found. The problem of keeping down the cost is not insuperable. Although for other reasons they happen to be little used in the air, there do exist<sup>1</sup> examples of approach charts which satisfy the requirement already; these demonstrate that simple layering is possible without having to adopt elaborate processes.

4. Acknowledgment is made to the British Air Line Pilots' Association, for whom the paper was first written. Acknowledgment is also made to British European Airways Corporation for permission to publish it, though the paper does not necessarily represent the views of the Corporation.

#### REFERENCE

- <sup>1</sup> United Kingdom Ministry of Aviation, G.S.G.S. Chart 4939.

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#### CAPTAIN E. BROOK-WILLIAMS

WE announce with regret the death, in London on 14 March, of Captain E. Brook-Williams, an early member of Council. Wing Commander Vivian Branch writes:

'B.W', as he was to many of us, had a fascinating career, for there cannot be many Englishmen who served in the First World War, as a gunner—winning the Military Medal—then in the Merchant Navy where he eventually got an Extra Master's qualification before joining the staff of a University. He went in turn to British Airways, B.O.A.C. and International Aeradio; he was known all over the world as a practising navigator, author, lecturer, instructor, a representative of I.A.T.A. at many I.C.A.O. meetings. His technical competence as a practical navigator on the long international air routes, when he was engaged on such work, was not, I believe, equalled by anyone else in the world. He had the same spartan disciplines of work that were the hallmark of the World War II Pathfinder navigators, but to these he was able to add his profound knowledge of navigation as a whole. We shall remember him as a great navigator of our time, with pride and affection.