

The 1000th issue of *The Aeronautical Journal* — an introduction

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The Aeronautical Society (which did not become Royal until 1918) was founded on 12 January 1866 and in the early years relevant papers were collected and published in annual reports. However, as interest in aerial navigation grew, it was decided to launch a journal, initially to be published quarterly. A letter from the then Honorary Secretary, Captain B. Baden Powell, announced *The Aeronautical Journal* in January 1897. Three hundred copies of the first issue were printed and the price was two shillings per copy. More historical details are to be found in the excellent paper written by Laurence Pritchard⁽¹⁾ in 1945.

To be the Editor of *The Aeronautical Journal* at the time of the 1000th issue is a unique and real privilege. Early this year Council agreed to invite a number of eminent people in industry, academia and the research establishments to contribute articles. With this in mind Sir Donald Spiers, then the Society's President, wrote what must have been a very persuasive letter of invitation. Nearly everyone approached agreed to write a paper, reviewing the current "state of the art" and looking ahead to the 21st century. The contents of this issue are the result.

What is particularly gratifying is the response from industry. Looking back over past issues of the *Journal* reveals very few papers from those very important groups of people who design, build, fly and maintain aeroplanes. In contrast there are a large numbers of papers from academics, but few of these papers address the very difficult problems that industry would like to see tackled. Reasons for the imbalance of papers are not hard to find but high on the list must be motivation. Practitioners in industry are always pressed for time, are often dealing with the immediate and face the constraint that publication of their most innovative work may be inhibited by commercial security. In academia the situation is entirely different. Publication is encouraged and promotion often depends upon it.

This problem is not unique to the *Journal*. A recent study by the UK's Institution of Mechanical Engineers showed a similar imbalance of papers, together with an analysis indicating a steady decline in papers from industry over the last ten years.

In the United States the picture is similar. Indeed, in an extremely serious article, Paul Rubbert⁽²⁾ of the Boeing Company comments that because of the value system for researchers being the number of refereed papers "our journals and conferences have become littered with papers whose real contribution is low or non-existent. The journals have evolved into being primarily a score keeping system". He paints a frightening picture of a self-seeking, self perpetuating, closed loop system driven by the "Money Givers" who are not close to the real details of aeroplane design. They fund the "Research Leaders" who dream up exciting visions to capture funding and then

plan the research accordingly. The "Researchers" implement the plan and publish enough papers to satisfy the value judgement criteria of the "Money Givers" and so ensure further funding. This stable self-sustaining system operates in its own little world, almost totally disconnected from practising engineers who design aeroplanes for a living. In Paul Rubbert's picture of the USA, conferences and journals have little beneficial effect in promoting communication because industry has become disenchanted with both.

The Americans have recognised the problem and are actively trying to improve communication and collaboration. In the UK the danger described above has long been recognised and attempts made to prevent it becoming a serious problem. For example, the Technology Foresight Defence and Aerospace Report⁽³⁾ recognises that "much applied research conducted in universities funded by government has no direct industry participation and therefore lacks market focus". The report goes on to emphasise that the Panel's Vision⁽³⁾, towards which its recommendations are geared, is: "industry, government and academia working in partnership so that UK defence and aerospace continues as a major contributor to wealth and national security".

How does this affect the future of *The Aeronautical Journal*? If the journal is to help forge the partnership envisaged in the Foresight Report it must try to publish important contributions from all sectors of the aerospace community. In particular we must try to carry more papers on that most creative part of aircraft evolution, namely design. This issue includes some excellent papers from industry and if these are best obtained by invitation, then that is an avenue we shall continue to explore. Aerospace is one of the few industries in the UK which is world class. It is one of the very few that makes a positive contribution to the balance of payments. It is an industry of which we can all be proud.

The *Journal* reaching its 1000th edition is also a cause for pride. How the *Journal* develops in the future, depends primarily on you, the readers and contributors. With your help the editorial team will be trying very hard to produce a good, well balanced publication reflecting the work of all sectors of the aerospace community.

REFERENCES

1. PRITCHARD, J.L. History of *The Aeronautical Journal*, *Aeronaut J*, Jan 1945, **49**, (1), pp 8-12.
2. RUBBERT, P.E. Progress and challenges in CFD methods and algorithms, AGARD CP-578, presented at Seville, Spain, October 1995, published April 1996.
3. Technology Foresight Panel on Defence and Aerospace, Progress Through Partnership, **12**, HMSO, 1995.