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## **EXPERIENCE OF COMMUNICATING AIRCRAFT NOISE AND SLEEP RESEARCH TO INDUSTRY AND THE PUBLIC**

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**ABSTRACT**

The UK government are considering whether there is a case for new research on the adverse effects of aircraft noise (no decision has yet been taken). To inform this decision, the National Air Traffic Services (NATS Ltd) were commissioned to consider the issues, and aims and objectives of any work. It was decided that it would be beneficial to all parties if the research planning and any findings were discussed with industry and representatives of the public, as well as the technical experts. This paper reports on these information dissemination activities.

**1 - INTRODUCTION**

Trust, voice (extent to which people are able to speak and be listened to) and accessibility to information have all been identified as key non-acoustic factors which can influence the reported response to a noise source [1, 2]. Finding ways to communicate information between government, researchers, industry and the public could therefore potentially assist in dealing with noise problems.

The UK Department of Environment, Transport and the Regions (DETR) are considering whether there is a case for new research taking the form of a new large-scale study of the adverse effects of aircraft noise (no decision has yet been taken). To inform this decision, the National Air Traffic Services (NATS Ltd) were commissioned to carry out a comprehensive review of the research evidence available to date, and to set up two new smaller scale research projects. It was decided that it would be beneficial to all parties if the research planning and findings related to this study were discussed with industry and representatives of the public, as well as technical experts.

This paper reports on these information dissemination activities to date in terms of the role of the advisory groups, presentations to airport consultative committees, dealings with the press, and general comments on the effectiveness of such activities.

No detailed information is given here on the actual project work, this can be found in references [3,4,5,6].

**2 - ADVISORY GROUPS**

Three advisory groups were set up:

1. a steering committee made up of government representatives, and representatives from airlines and airport operators and airport consultative committees
2. a technical group with experience in many aspects of noise, sleep and health, and
3. an international peer review group.

The Steering Group

The draft terms of reference for this group were:

1. To consider and agree the structure of any preliminary studies, based on the project aims, technical information provided by NATS, subject to the guidelines previously presented in a preliminary consultation paper.

2. To review documents prepared for the preliminary studies.
3. To comment on the output of the preliminary studies.

The Steering Group met on several occasions, with correspondence between meetings via regular mail or email. It should be pointed out that the UK Government Ministers retained all responsibility for substantive decisions on the trial and related subsequent research.

NATS gave presentations on the current understanding of the potential adverse effects of night-time aircraft noise and how previous UK work compared with more recent US work. There was a two-way question and answer session that included a discussion of project aims and objectives. Local concerns at individual airports were highlighted and related to the planned work. It was this group in particular who suggested that, in future studies, more emphasis should be placed on understanding public perceptions. Following this, a public attitude survey was included as one of the preliminary studies [6].

#### The Technical Group

The draft terms of reference for this group were:

1. To provide technical advice on the preliminary research, including
  - consideration of the objectives in relation to longer term aims,
  - key areas for investigation, and
  - methodologies, data requirements and overall designs.
2. To review documents and other outputs.

In general, the group was successful and resulted in lively discussion. Again, there was a two-way question and answer session that included a discussion of project aims and objectives. Major contributions were made to project design and there was valuable feedback provided on drafts of the NATS review paper [3]. However, this group proved to be a challenge at times. It can be difficult to manage a group of experts who often have widely differing views on priorities and there can be as many views as people in the room. The challenge was to take into account the views, represent ideas after discussions and reach a consensus.

#### The Peer Review Group

This group was effectively made up of a number of non-UK technical experts. The core of the group consisted of members of IC BEN (International Congress on the Biological Effects of Noise) Team 5 (Noise and Sleep). It was expected that members would provide independent views on the research objectives and issues. To facilitate this, drafts of the review paper [3] were sent for comment. It is the intention that draft reports on the projects described in [5,6] will be forwarded to this group by the time of the conference.

A large number of helpful comments were received including; the identification of other key work not already considered, confirmation of NATS view of the problems and challenges, clarification of areas of uncertainty, general encouragement, and views on future research options.

All contributions to date have been made by correspondence only. However, it is hoped that at Internoise, many of the members will be present when the research is discussed and hence the special session on the adverse effects of night-time noise will provide a forum for face to face discussion of issues presented during the UK work.

### **3 - AIRPORT CONSULTATIVE COMMITTEES**

Visits were made to some of the main airports to address the consultative committees to explain the background to the work and planned activities. This included the airports at Manchester, Heathrow, Gatwick and Stansted. The membership of these committees includes the airport operators, airline representatives, local counsellors and community group representatives. The visits presented opportunities for open debate, and often the overall goals of the work were challenged. Many were interested in how the findings would be applied. Discussions highlighted the difficulties in balancing the social/environmental needs of the community and the economic needs of industry. It clearly demonstrated that any research should not be done in isolation, and must be applicable to solving the challenges at hand. One key challenge here is addressing the question – How can the impact of night-time aircraft noise be limited to acceptable levels? There is of course debate over the definition of 'acceptable' and discussion with airport consultative committees provided valuable insights into this issue.

#### 4 - THE PRESS

Statements were issued to the local press from time to time that resulted in a number of articles printed in local areas around some of the airports. Subsequently, a few members of the local community directly contacted NATS Ltd. All correspondence was polite and friendly, mainly concerned with the acquisition of more information. The general feedback was one of interest and expressions of gratitude for being kept informed.

#### 5 - CONCLUSIONS

This paper has described several information dissemination activities relating to current UK work on the adverse effects of night-time aircraft noise. The activities have served to facilitate the development of sound research strategies and also increase the technical quality of written material. Many of the recommendations made by the advisory groups were incorporated into research planning.

The activities to date appear to have been well received, and the general conclusion is that these types of activities have so far served to give opportunities to make the public, as well as the industry, more aware of the background and objectives of the work, how it is progressing, and has given opportunities to share concerns over local problems.

The activities have provided fora for more open discussions between industry, government, researchers and public representatives. There will always be those who will accuse others of 'keeping them in the dark', but the more open parties are about their views and/or plans, the more this can only serve to increase the feeling of trust and voice (extent to which people are able to speak and be listened to). This could in turn assist in developing more effective noise mitigation options or indeed play a vital role itself in mitigating the extent of the effects of a noise source.

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