B75-10075

NASA TECH BRIEF

Langley Research Center

Handbook of Noise Ratings

The "Handbook of Noise Ratings" is a compendium of information describing the multifarious noise rating methods now in use. It is an attempt to provide reference material in such a manner as to give the user better access to the definitions, application, and calculation procedures of current noise rating methods.

This book is divided into four rating sections or chapters as well as an appendix containing less frequently used measures, an abbreviations section, and a glossary of acoustical terminology. The chapters are: "I. Direct Ratings of Sound Level," "II. Computed Loudness and Annoyance Ratings," "III. Communication Interference Ratings," and "IV. Community Response Ratings."

The information for individual noise ratings in each chapter is placed under an identical group of headings. These headings are: "Title," given in its most complete form and also in commonly-referred-to abbreviations; "Units," in preferred and alternate forms with reference levels included when appropriate for the units; "Definition," the scope of the measure and the parameters it takes into consideration; "Standards," including both existing ones and those proposed; "Geographical Usage," where the measure is most commonly used; "Purpose," the reasons for the development of the noise rating and its major uses; and "Background," the development of the noise rating as well as a description of the elements of the calculation procedures for those measures involving relatively complicated techniques.

Additional headings are relative to the measure in use and include: the "Calculation Method," which outlines a step-by-step procedure to enable the user to ideally calculate the noise rating; the "Example," where numerical information is used in an effort to simulate a real-life situation; and "Equipment," which lists the equipment necessary for collecting the data, for calculating the noise rating, or for direct measurement of the noise rating.

While most of the information contained in the handbook can be found in other references, it is anticipated that this single volume of noise rating method descriptions will prove to be a useful tool in fostering a better understanding of noise ratings and their implementation.

Notes:

1. The following documentation may be obtained from:
   National Technical Information Service
   Springfield, Virginia 22151
   Single document price $9.50
   (or microfiche $2.25)
   Reference: NASA-CR-2376 (N74-23275), Handbook of Noise Ratings
2. Technical questions may be directed to:
   Technology Utilization Officer
   Langley Research Center
   Mail Stop 139-A
   Hampton, Virginia 23665
   Reference: B75-10075

Source: Karl S. Pearsons and Ricarda L. Bennett of
Bolt Beranek and Newman, Inc.
under contract to
Langley Research Center
(LAR-11799)

Category: 03 (Physical Sciences)