

## Subject Headings for Naval Libraries

*Subject Heading List for Naval Research Libraries.* 2d ed. Planning Division, Office of Research and Inventions. Edited by Jerrold Orne and Grace Swift. [On cover: Executive Office of the Secretary. Navy Department, Washington] January 1946. v, 499p. (Photoprinted)

According to the introduction, the headings in this list are "derived from the analysis of . . . research reports issued by the Navy, War Department, and the Office of Scientific Research and Development." Additional statements in the introduction are as follows: "It is not intended to be a complete list in any one field. . . . It . . . is probably the most complete available list . . . verified by specialists, in the fields of Electronics, Explosives, Ordnance, Tropicalization, Aeronautics, Photography, Metallurgy, Chemical Warfare, and other fields relating to naval science. . . . This is a specialized list. . . . For a general library this list would have to be used in conjunction with a more general list such as the *Subject Headings Used in the . . . Catalogs of the Library of Congress*, 4th ed. This edition . . . bears the stamp of authenticity by virtue of the painstaking efforts of many distinguished scientists."

From the introduction also it appears that this list is to be the basic authority for the analytical cataloging of "an estimated 200,000 reports." The introduction uses the word "indexing" throughout, but it is clear the process meant is listing the entries on cards which are to be distributed to "each cooperating agency." These agencies, presumably, will arrange the entries as in a dictionary catalog.

The editors are to be praised for their venture, however tentative, in a field of technological terminology restricted to new and rapidly changing inventions, processes, and concepts, in which arise problems more difficult and baffling perhaps than any other confronting professional classifiers and catalogers.

The list contains approximately 7500 headings and reference entries; none of the headings are defined except occasional headings followed by limiting words enclosed in curves. The great majority of the headings are special to an extreme degree, although numerous

terms found in the Library of Congress subject heading list, 4th ed., are included. There are 193 subject headings beginning at the first entry under "Rocket" and running through "Rockets, Window," which is the last of the inverted entries beginning with the word "Rockets." This does not include 102 cross references to headings alphabetized elsewhere such as "Ballistics, Rocket," etc. Incidentally, the coordination of the various "Rocket" entries is better than any developed heading found elsewhere in the list.

For the purpose of this evaluation, a test of the list was made under several subjects to determine the extent of coordination given to the numerous entries which were contributed by scientists and others. In this short search many headings were found entirely without coordination; many headings which should have been listed, if only to refer from, are entirely wanting. "Ordnance," one of the special fields, is not listed in the alphabet; its absence is conspicuous as it would carry references to its principal branches and to allied entries which are listed, such as "Artillery," "Bombs," "Fuses," "Guns," "Projectiles," etc.

Numerous instances are found where synonymous or practically synonymous terms are used as headings without connecting cross references. The following headings and references dealing with the various kinds of radio interference, man-made, atmospheric, or due to functional defects of apparatus, are reproduced here from the list with all accompanying cross references:

- Anti-jamming.
- Atmosphere—Disturbances.
- Electricity, Static.
- High-frequency noise *see* Sound, High frequency.
- Hum—Suppression.
- Interference *see also* Jamming; Noise.
- Interference, Radio *see* Radio interference.
- Jamming *see also* Countermeasures.
- Jamming, Radio fuze.
- Jamming transmitters.
- Noise *see also* Sound; Sound-proofing.
- Noise, Radio *see* Radio interference.
- Radar—Interference.
- Radar—Jamming.
- Radio—Atmospherics.
- Radio—Countermeasures.

Radio—Interference *see* Radio interference.  
 Radio—Jamming.  
 Radio—Noises.  
 Radio—Static *see also* Atmosphere—Disturbances.  
 Radio interference.  
 Radio receivers—Noises.  
 Static.  
 Static electricity *see* Electricity.  
 Vacuum tubes—Noises.

The above, which is typical, is not itself complete but is complete enough to show how material may be scattered among several practically synonymous headings. It also shows strikingly that coordination of related headings has been very sparingly done. The reference from "Static electricity" to "Electricity," which should be to "Electricity, Static," is one of numerous similar references to a general subject when a specific subject is intended. Other examples include cases where both the heading in use and the one referred from are general terms used in this list to cover a specific application or meaning. Cases in point are "Success *see* Probability," "Chaff *see* Window," "Worms *see also* Gears."

Another example showing failure to use cross references and the need for revising and defining terms is the following (headings and references are reproduced as listed):

Lights, Pistol.  
 Lights, Very signal *see* Flares, Signal.  
 Pistols, Signal.  
 Pistols, Very signal *see* Pistols, Signal.  
 Signal pistols *see* Pistols, Signal.  
 ["Signals, Pistol" does not show.]  
 Signals, Pistol rocket.  
 Very pistol *see* Pistols, Signal.

No listing is found under "Marine engines," although the headings "Engines, Marine" and "Ships—Engines" are used. Such cases are numerous.

In some cases an abbreviation is used for an explosive or chemical; in other cases the full name is used, which results in listings such as: "Hexogen *see* RDX," but "HND *see* Hexanitrodiphenylamine," etc. A "formula index" is given on page 489 "for use in the indexing of organic compounds," which recommends the use of chemical formulas for organic compounds and carries instructions for arranging them. Groups of letters used as headings or references to other headings

are frequent, e.g., "ASW *see* Anti-submarine warfare," etc. These headings are printed without periods and are arranged as true words, without references from their alternative positions. Incidentally, UEP is the preferred heading for "Underwater electrical potential" but no reference from "Underwater electrical potential" is found among the 23 listings beginning with the compound word "Underwater."

From the beginnings of language, semantic difficulties have plagued mankind, often confusing our most profound philosophers. Catalogers and classifiers of printed material have especially felt the need of limiting in some way the coverage of terms used professionally, catalogers doing so for the most part by referring in their subject catalogs to the term chosen for a particular concept or thing from all possible alternatives. In addition, many subject heading lists contain some definitions and "scope" entries. All the resources suggested by knowledge, skill, and experience are constantly called upon to avoid scattering material under various synonymous or practically synonymous headings and to direct even the expert searcher to closely allied headings which he may have confused with the heading he is examining.

If, in the compilation of a subject heading list, this is only partially done, the list is reduced proportionally to an alphabetized but indiscriminate mass of suggested terms. Terminology in technical fields, even in the older and long-established branches, is often confused even in the usage of experts. The writer of these observations has known more than one ordnance expert to call his masterly treatise on ordnance "A Text-book of Gunnery" or "A Treatise on Artillery;" more than one has called his essay on ballistics, "An Essay on Gunnery." "Navigation" has been used by many authorities when "Commerce" was meant, by others when "Shipping" would have been better, and still others have confused "Navigation" with "Seamanship." (Parenthetically, the list being reviewed contains the reference, "Avigation *see* Navigation," the intent being to refer to "Navigation, Aerial.")

In the newer technical fields such as "Electronics," etc., not only is the confusion multiplied many times, but terms employed by the inventors of various devices are quickly re-

placed by different terms used for improved or altered types, alternative terms and nicknames spring up on every side literally by the dozen. Anyone attempting to compile an authoritative list of such terms for use by independent groups of indexers or catalogers must accept the necessity of very nearly complete coordination as a minimum requirement.

The individual headings listed in the work under discussion are, beyond question, acceptable to the various individual scientists or agencies who contributed them, but as their contributions are in similar or related fields they duplicate and contradict each other in many instances.

This list may become a basic authority in the fields covered after duplications under varying terms have been eliminated, closely related concepts connected with references, terminology as used in headings clarified by expansion, limitation, definition, or by reference to a standard technical dictionary (attention being paid meanwhile to the commonly

accepted meanings of the terms, especially the broader terms). As it stands, the list seems to be merely an alphabetization of headings and references submitted by various contributors, with very little coordination. This is a great disappointment, as something authoritative is needed in these fields. The *Engineering Index*, *Industrial Arts Index*, Voigt's *Subject Headings in Physics*, and the L.C. *Subject Headings for the Aeronautical Index* (1940), all well done, remain our best sources of special headings, although they do not have the coverage in detail of the newer concepts which the list under review attempts.

Even so limited, the list will be of value to the careful cataloger who understands its limitations and characteristics, and it may even become, eventually, the forerunner of an authoritative cataloging tool for libraries specializing intensively in the fields covered and a reference work of considerable value to catalogers in more general libraries.—*James M. Saunders.*

## The Value of Library Surveys

*Report of a Survey of the University of South Carolina Library for the University of South Carolina, February-May 1946.* By Louis R. Wilson and Maurice F. Tauber. Columbia, University of South Carolina, 1946. 134p. (Mimeographed)

The criticism has been advanced that the literature of library surveys, relatively new as it is, has already fallen into a rut; that each new survey merely repeats the same old patterns; and that if you have read one, you have read all. There is some justification for this attitude since many of the institutions surveyed do have similar organization, similar inadequacies, and therefore similar problems, which in many instances call for similar recommendations regarding correction or improvement. Another criticism which has been directed toward library surveys is that, in the final analysis, all of them resolve themselves into a plea (variously supported) for increased financial support. This criticism, also, is not without substance.

It might, however, be a healthful undertaking for us to view critically these criticisms for a moment: Actually, the strongest

proponents of the survey as a scientific study of a library situation have consistently proclaimed it to be primarily an effective instrument for increasing support. And to quarrel with either the instruments of measurement or the basis of recommended correctives is to refute library economy, not library surveys; for the good survey will employ as much as is pertinent of library economy per se, and in its judicious choice and expert application of proper selections from total library science to a particular library situation a survey may be best evaluated. It is the survey review or criticism rather than the survey itself which has fallen into a rut.

The individuality of a library survey is not readily apparent unless the reader is familiar with or interested in the library which has been surveyed. The reason for this is that the survey, being aimed at nonlibrarians for the most part, is of necessity a *teaching* and an *implementing* instrument as well as a measuring device. Much of its teaching must be quite elementary, resulting in a work which holds little interest for the librarian, unless the whole work should suddenly be brought