Arctic & Antarctic Information

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Published by the National Information Services Corporation (NISC), the Arctic & Antarctic Regions compact disk provides access to the literature of the north and south polar regions. Arctic & Antarctic Regions provides multidisciplinary coverage of Antarctica, the subantarctic islands, and the southern ocean and seas surrounding Antarctica. For Arctic regions, Arctic & Antarctic Regions is evolving with each release into a comprehensive multidisciplinary Arctic database. Arctic & Antarctic Regions's first release offered Antarctic Bibliography and the Cold Regions database offering polar information focused on civil engineering, materials science and the physics and mechanics of snow, ice, and frozen ground. Thus the first release was multidisciplinary for Antarctica and limited to a few disciplines for Arctic regions. The second release under review incorporates four new databases extending Arctic coverage into additional disciplines and enhancing Antarctic coverage further. NISC plans to add at least three more databases in the third release with more slated for future releases. Due to this amalgamation of individual databases, the Arctic & Antarctic Regions compact disk is quickly becoming the premier information source for north and south polar regions with no online or printed equivalent. If you need access to polar literature, THIS IS IT!!!

COVERAGE

Arctic & Antarctic Regions (AAR) CD-ROM contains over 258,000 citations, resides on one disk, and updates semi-annually. Within 18 months NISC expects the AAR CD-ROM to reach 425,000 citations of which 2/3 will have abstracts. Source items include journal articles, technical reports, books, conference papers, maps, and patents; abstracts are available for most but not all items. Currently the AAR database merges six databases: Cold Regions, Antarctic Bibliography, Arctic Science and Technology Information System, C-CORE, Scott Polar Research Institute Library, Citation/WDC-A.

The Cold Regions database contributes over 112,000 records and focuses on the physics and mechanics of snow, ice, glaciers, and frozen ground (permafrost) and all aspects of cold regions navigation and civil engineering including materials science and equipment operation. The Cold Regions database is produced by the US Army Corps of Engineers Cold Regions Research & Engineering Laboratory. It corresponds completely to the printed Bibliography on Cold Regions Science and

Technology (dating from 1951) and to the online database available
exclusively on the ORBIT Search Service (division of Maxwell Online).

The Antarctic Bibliography database contributes over 35,000 records and
attempts to include all significant Antarctic material published
worldwide in all disciplines. Antarctic biology, geology, engineering,
medicine, meteorology, oceanography, atmospheric physics, geophysics,
and political and social science is covered. The Antarctic
Bibliography database is produced by the Library of Congress and
corresponds to the printed index of the same name (dating from 1962)
and its companion current-awareness monthly entitled Current Antarctic
Literature. The printed Antarctic Bibliography actually goes back
further to 1951 but the 1951-1961 references are not available in
electronic format. The 1951-1961 Antarctic Bibliographic references
are available in one volume which libraries may wish to offer along
with the compact disk. For those wishing to keep up with Antarctic
information faster than AAR's semi-annual updates, Antarctic
Bibliography's current awareness title, Current Antarctic Literature,
is available free to qualified individuals or institutions.

The Arctic Science and Technology Information System (ASTIS) database
contributes over 29,000 records and is produced by the Arctic Institute
of North America in Calgary, Alberta, Canada. The emphasis of ASTIS is
the Canadian Arctic but some material on other Arctic regions is
included. ASTIS is multidisciplinary in scope and corresponds to the
microfiche ASTIS Bibliography and is available online on QL Systems
Ltd.

The C-CORE database contributes over 20,000 records and is produced by
the Cold Ocean Resources Engineering Center, St Johns, Newfoundland,
Canada. C-CORE focuses on ocean engineering in cold regions.

The Citation database contributes over 25,000 records and is produced
by the World Data Center A for Glaciology, Boulder, Colorado, USA.
Citation focuses on the physical properties and characteristics of ice,
glaciers, and permafrost.

The Scott Polar Research Institute Library (SPRILIB) database
contributes over 30,000 records and is produced by the Scott Library at
the University of Cambridge, England. SPRILIB covers polar regions
worldwide (including Antarctica) and contains books and periodicals
received and cataloged into the Library's collection. SPRILIB roughly
corresponds to the printed Polar and Glaciological Abstracts and is
available online on QL Systems Ltd.

HARDWARE REQUIREMENTS & SOFTWARE INSTALLATION

The Arctic & Antarctic Regions compact disk runs on IBM or compatible
microcomputers with 512K RAM minimum. DOS 3.1 or later is required. A
hard disk and color monitor is recommended but not required. The
search software relies on windowing and color for separation of
onscreen areas and elements; therefore, a color monitor will be
desirable. Produced in the High Sierra/ISO 9660 format, Microsoft CD-
ROM Extensions version 2.00 or later is required (not included with
purchase) and the AAR CD-ROM will work with any CD-ROM player running
Extensions. AAR CD-ROM is well-behaved and, at the author's library,
coexists on one workstation with nine other compact disk databases.
Installation is very easy with installation of the search software
proceeding from the compact disk itself rather than from the expected
floppy disk. The search software was written by Dataware Technologies
and is entitled CD Answer Retrieval Software. During installation, the
software can be configured to start up in novice searcher or expert
searcher modes.

When the search software is started by a user, it pauses on a copyright
statement requiring a keypress to continue. Forcing this screen
upon the user may be judged intrusive by some and it can be bypassed by
the CD-ROM installer. Using a keystroke-passing software like KEY-FAKE
in a batch file, the needed keystroke can be passed to the AAR search
software while it is loading thus bypassing the copyright screen. KEY-
FAKE will pass a keystroke to the AAR search software as though the
user had pressed the key. KEY-FAKE is a free public domain utility
available from many bulletin boards including PC Magazine's PC MagNet
system. To get KEY-FAKE, see the "Utilities" section in any issue of
PC Magazine for PC MagNet access information or purchase/borrow a
useful DOS book (with accompanying floppy disks) entitled PC Magazine
DOS Power Tools by Paul Somerson (New York: Bantam, 1990).

NISC supplies a CD-ROM menu system and batch files for starting up AAR
and other NISC products. The menu system and/or its batch files can be
adapted to a variety of software and CD-ROM environments. The AAR
search software can be customized to start from any of four "novice"
search screens or from an "expert" search screen. For most sites, one
of the novice search screens will be preferable due to inexperienced
users or confusion among various CD-ROM search software available. The
default novice search screen displays search windows (figure 1) from
which the searcher can execute four types of searches: subject-oriented
global, author, corporate author, or subset database eg ASTIS. Once
the software is loaded, the other three novice search screens or the
expert search screen can be selected via the F6 Setup function key.

Two of these alternate novice search screens are best in the author's
opinion. To make an alternate search screen the startup default
involves a simple renaming of files. The five search screens are
embodied in five files installed on the hard disk and named

AAR_MQ00.ENG through AAR_MQ04.ENG. AAR_MQ00.ENG is the default novice
search screen and AAR_MQ01.ENG is the expert search screen. To make an
alternate novice search screen the default novice screen, rename it to
AAR_MQ00.ENG. The novice screen AAR_MQ04.ENG is a good selection;
first rename the existing AAR_MQ00.ENG to AAR_MQ05.ENG and then rename
AAR_MQ04.ENG to AAR_MQ00.ENG. Allowing the CD-ROM installer this level
of customization is commendable for a CD-ROM search software.

SEARCH SOFTWARE

The novice search screen prompts the searcher with onscreen help and
detailed context-sensitive help is available via the F1 function key.
Search operators, truncation, and word proximity are full-featured and
more powerful than that available on some online databanks. Logical
search operators are AND, OR, and NOT; proximity operators are NEAR and
ADJ. There is no implied operator for search words without an
intervening operator; phrase searches are executed for two or more
words without intervening operators. Word proximity searching is
unusually well-developed. NEAR# searches for two words with either
being the first word and within # words of each other. For example,
DISTRIBUTION NEAR2 PLANKTON retrieves DISTRIBUTION OF PLANKTON as well
as PLANKTON DISTRIBUTION. ADJ# searches for two terms with word order
being as typed and within # words of each other. For example,
DISTRIBUTION ADJ2 PLANKTON retrieves DISTRIBUTION OF PLANKTON but not
PLANKTON DISTRIBUTION. Alphabetical or numerical operators are also
available: less than, greater than, less than or equal to, greater than
or equal to, not equal, and range searching (ie alphabetical span,
range of years).

Truncation is an asterisk which replaces any number of characters at
the left, middle, or right of a word. Two asterisks are the limit so
double truncation is possible. For example, *PLANKTON* will retrieve
ZOOPLANKTON, PLANKTONIC, PHYTOPLANKTONIC, etc. Question marks replace
individual characters anywhere in the search term with multiple
question marks representing multiple characters. For example, WOM?N
will retrieve WOMEN and WOMEN; REPRODUC???? will retrieve REPRODUCE,
REPRODUCTION, REPRODUCING, etc.

Nested search strategy construction using parentheses is available.
The search software automatically supplies the closing parenthesis when
an opening parenthesis is typed. Three lines of search words with
logical and proximity operators and nested logic can be constructed;
very complex search strategies can be executed.

FIELD SEARCHING

Expert mode is designed for field-specific searching which novice mode
cannot do for every field. However most users will find novice mode's

subject-oriented global searching or author searching all that is needed. Fields include common bibliographic elements, keywords (proper names, subject and geographic terms), language, broad disciplinary concepts for Antarctica (eg oceanography, political geography, biology), publication date, and document type. Typing the term "all" in a field will retrieve all items wherein the field is not empty ie retrieve only those items which have abstracts. Typing "none" in a field will achieve the opposite. Expert mode displays an open window (figure 2) with the field names lined up down the left margin. After each field name, words are typed which will be searched only in the corresponding field. If words are typed in several fields, then the software will search them as a nested search strategy wherein each field's words are enclosed within parenthesis. Logical operators between field-specific terms are specified with the Connection operation (assigned to function key F4); AND is the default.

HELP & BROWSE

Function keys provide access to operational features of the search software; pressing a function key pops open a window menu of options. Function key assignments are noted across the top of the screen. Press function key F1 to access context-specific help for the situation at hand. F1 help is generally excellent with only a few mistakes or insufficient detail. Press function key F2 to access a powerful database index browse capability; a window opens into the database index. Words in the Browse index can be scrolled and paged through or specific words can be located by typing the first few letters. When the desired Browse index word(s) are located, they can be directly transferred into the search strategy and can even replace existing words in the search strategy. Truncation can also be specified from within the onscreen display of the Browse index; this is especially useful for selecting optimal truncation among variant wordings.

SAVE, SETUP, & QUIT

Press function key F5 to save or retrieve search strategies and clears the search screen of the previous search. Press function key F6 to change the software setup. A window menu allows the user to change between novice and expert versions of the software, set screen colors, and change from an "exact" search to an "extended" search. An extended search will locate all variants of search terms, in other words, a automatic truncation search. Extended search capability will be implemented in a future release. The color control afforded by the F6 setup menu is extensive; colors can be set over the foreground and background of every element of the software's screens. Press function key F7 to exit the search software.

DISPLAY

Pressing function key F3 displays a title-listing (figure 3) of items retrieved from a search. This title-list can be scrolled and the searcher can directly transfer to viewing full records (figure 4) for individual titles. Alternatively, the title-list can be bypassed so that the searcher can scroll through the full records. Within F3 display mode, some function key assignments change. Press function key F6 to jump down to a specific record in the set. Press function key F2 to toggle between the title-list display and the full-record display. Press function key F3 to change the display format of the title-list and the full record. The title-list can be changed to include the bibliographic source; the full record can be changed to display user-selected fields. Press function key F4 to sort records by author, publication year, and database subset in ascending or descending order; records without the field being sorted can be omitted or retained and duplicates can be deleted. Sorting is slow on an 8086-class microcomputer; sorting 207 records on a 10 megahertz turbo PC consumed three minutes. Records cannot be sorted by source which is unfortunate for libraries with their serials alphabetically arranged. A list sorted by source would be handy for pulling journal volumes from the library stacks.

PRINTING

References are printed from the title-listing or from the full-record display by pressing the ALT and P keys simultaneously; this tip always displays onscreen. Press function key F5 to choose from a wide variety of output operations for sending retrieved references to printer or disk. Press F5 function key to print a set of references rather than individual references (via ALT). Press F5 function key to access AAR's advanced downloading features. CD-ROM database search software developers should learn a lesson from Dataware Technologies' CD Answer Retrieval Software. CD-ROM databases exist in a world with other software and many users will want to import (transfer) CD-ROM references into their own personal databases. Rather than forcing database software to recognize the AAR record format, the AAR search software exports its references in several standard record formats that are recognized and can be imported by most database software. Sounds like common sense but look around. How does one import the references from a CD-ROM database into bibliographic database software like Pro-Cite? Can a CD-ROM product export its records in a format that the bibliographic database software imports? Due to market presence, the record formats of some SilverPlatter, Dialog, and Compact Cambridge databases may be included on a specific bibliographic database software's list of recognized formats. Don't hold your breath waiting for the unique format of every compact disk database to be included. A more sensible approach is for the CD-ROM search software to export records in standardized formats like the comma-delimited format (Pro-

Cite will recognize this), semicolon-delimited, dBASEIII+ (DBF),
Lotus123 (WKS), Data Interchange Format (DIF), and fixed field.

DOCUMENTATION

Printed documentation is currently sketchy and inadequate; NISC
promises a major revision soon and has been justifiably directing its
efforts towards increasing the bibliographic coverage of AAR. Online
help accessible through the F1 function key is very good. No mention
is made anywhere of geographic authority lists or subject keyword
thesauri by any of AAR's databases. With the multiplicity of databases
intended for this CD-ROM, it is probably for the better.

HIGHER PERFORMANCE

For additional performance improvement, NISC recommends an 80286- or
80386-class microcomputer for speedy execution of searches and display
of search results. Title-only browsing through a retrieved set of
references on an 8086-class microcomputer readily reveals the wisdom of
this advice. However, running this CD-ROM on an 8086-class
microcomputer provides acceptable performance except for intensive
applications like sorting or double truncation. The publisher
recommends using a RAM disk installed in extended or expanded RAM
memory (located above the microcomputer's conventional 640K RAM
memory). Extended or expanded RAM memory may be obtained through
purchase of an add-on expanded or extended memory board or through
usage of pre-existing extended RAM memory on the microcomputer's
motherboard. A large RAM disk can be used for running the AAR search
software itself or a small RAM disk can be used for temporary storage
of working files. Using a RAM disk for temporary working files will
facilitate execution of searches yielding large numbers of records,
sorting of large numbers of records, and, execution of searches with
many search terms. These temporary working files are usually created,
accessed, and deleted from the hard disk; writing them to a RAM disk is
quicker and much more efficient. The publisher advises that no more
than 50K is needed for a RAM disk for temporary working files. 80286-
class and above microcomputers with 1 megabyte of RAM installed on the
motherboard can easily take advantage of this performance improvement.
NISC deserves credit for providing such helpful advice directed toward
optimizing performance. Usually one blunders along trying to tweak a
CD-ROM system into yielding higher performance; it is reassuring to
know that NISC is as performance-minded as the enduser.

PRICE

Available for $795 annual subscription with semi-annual updates, Arctic
& Antarctic Regions compact disk is published by National Information
Services Corporation (NISC), Suite 6, Wyman Towers, 3100 St Paul St,

Baltimore, Maryland 21218. Telephone: (301)243-0797. Fax: (301)243-0982. NISC publishes several other environmental compact disks including Water Resources Abstracts, Environmental Periodicals Bibliography, and Wildlife & Fish Worldwide. Overall the search software and database are very good. AAR can be readily used by most inexperienced searchers; onscreen hints and online F1 help will answer most questions. The search software is powerful and highly developed and particularly noteworthy is the capability to download in standardized record formats for subsequent importing into personal database software. AAR is indispensable for any individual or institution with Arctic or Antarctic research interests.

Andrews, Martha. "Computerized information retrieval and bibliographic control of the polar and/or cold regions literature: a review", BULLETIN, SPECIAL LIBRARIES ASSOCIATION, GEOGRAPHY AND MAP DIVISION 159: 21-42, March 1990.

Andrews, Martha. "The organization of polar information before the advent of online databases: a review of the literature", BULLETIN, SPECIAL LIBRARIES ASSOCIATION, GEOGRAPHY AND MAP DIVISION 154: 5-22, December 1988.