

RESEARCH GUIDE

Technical Reports

George Mason University Libraries

Technical reports show the results of research and development projects. Various groups compile the reports, including university departments, institutes, private industries, and government agencies. Because no agency coordinates the publication and dissemination of technical reports, they can be very difficult to identify and locate. Many government agencies, research centers and universities provide their full technical reports or abstracts for free on the Internet. A guide to online technical reports is on the library's WebPage at: <http://library.gmu.edu/resources/engin/techreports.html>.

The following literature guide goes into detail about the nature of technical reports and suggests sources for finding reports by subject area:

Information Sources in Grey Literature. C.P. Auger, 3rd ed. London: Bowker-Saur, 1994.
Fenwick Reference T10.7 .A87 1994

IDENTIFYING TECHNICAL REPORTS

National Technical Information Service (NTIS) Online, (1964-present). NTIS is the premier provider and indexes of government-sponsored research reports, covering areas such as engineering, biotechnology, the environment and health and social sciences. Use NTIS to find reports on a topic, by an agency or an individual, and to get the report number that makes locating the full report much easier.

Access the NTIS database by going to <http://gateway.ovid.com/autologin.html>, then selecting NTIS from the list of databases. Note: this database is accessible to GMU students, staff and faculty only.

Government Reports Announcement and Index. (1976-1996). The print version of NTIS.
Fenwick Index T45 .G6

Library Catalog: Search the GMU library catalog for reports on a given topic or the see if GMU has a report you have identified in another resource such as NTIS. The catalog can be accessed on the computers within the library or remotely by going to the Libraries's homepage at <http://library.gmu.edu>. To see if a report is at GMU select *Keyword Search*, then type the title of the report with quotation marks around it. For example:

- "Adaptive optimization of aircraft engine performance using neural networks "
- You must use quotation marks (" ") in the library catalog to search words as a phrase.

To search for reports on a topic, select *Keyword search*, then type your topic. Because NTIS is the clearinghouse for technical reports purchased by GMU, add "national technical information service" to narrow your search to reports. Remember to use quotation marks around words to be searched as a phrase and type Boolean connectors like AND and OR in all capitals. Some keyword examples:

- "neural networks" AND "national technical information service"

- “solar energy” AND “national technical information service”
- (isdn OR “integrated services digital network”) AND “national technical information services”

GETTING TECHNICAL REPORTS

The Fenwick Library collects selected technical reports provided by NTIS, covering the following areas: healthcare, economics, legislation, regulations, information and computer science, hydrology, natural resources, environment, transportation and human factors. The majority of the reports are kept in the **Government Documents Room** (1st floor, C wing) and may be in one of three different locations in this room: the Microfiche Room, the SRIM cabinet, or in the print materials stacks.

It is very important to **check the following two places** to see if GMU has the technical report that you are looking for:

- Search the Library Catalog for the title of the report. Use the *Keyword* search as in the example above.
- Search the Microfiche cabinet labeled **SRIM** (Selected Research in Microfiche) in the Government Documents Room by **accession number**. The accession number can be obtained from the NTIS database.

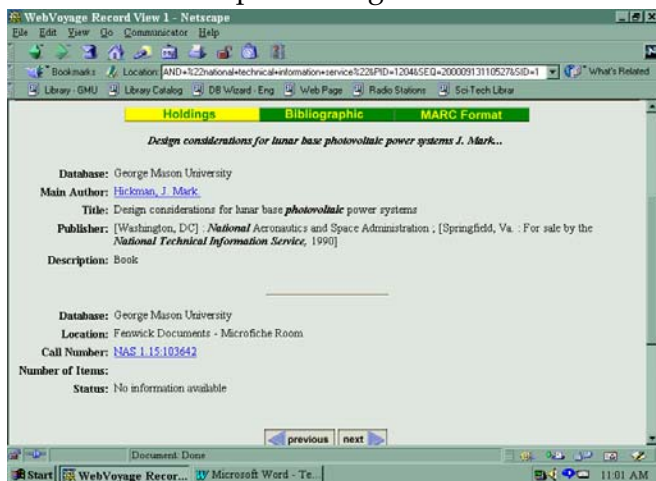
The reports contained in the SRIM cabinet are not in the Library Catalog, so you will need to physically search for the accession number to determine if GMU has the report. Reference staff can help you search for reports.

Reports that are included in the Library Catalog will most likely be located in the **Microfiche Room** in 1C by SuDocs (government call number system) number. SuDocs numbers begin with an agency abbreviation such as **C** (Department of Commerce), **E** (Department of Energy), **EP** (Environmental Protection Agency), **I** (Department of Interior), and **NAS** (NASA), and are followed by a string of numbers and letters. The Library Catalog gives you the full SuDocs call number and signifies the location of the item.

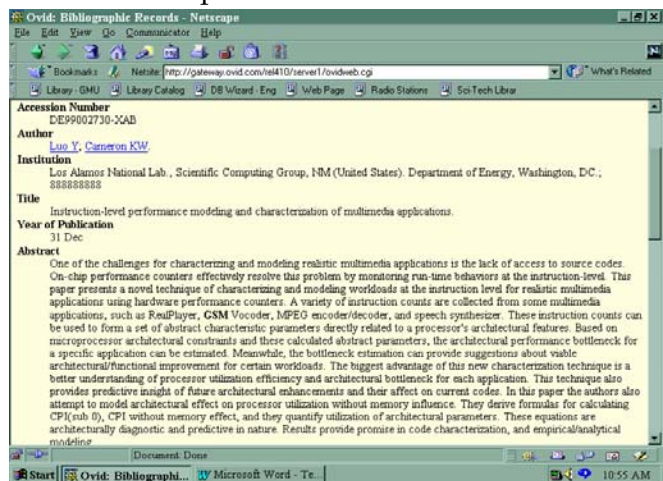
Technical report numbers in the SRIM cabinet also begin with an agency code which may be different from the SuDocs code, even for the same government agency. The images displayed in Figure 1.1 provide a view of a sample catalog record and an NTIS database record.

Figure:1.1

Sample Catalog Record:



Sample NTIS database record:



The reports are filed by accession number, which is different from the report number. The following non-exhaustive list of codes and their agencies is a sampling of the reports collected by GMU.

| <u>SRIM Code</u> | <u>Agency Name</u> |
|------------------|--|
| ABCC | Atomic Bomb Casualty Committee |
| AD | Air Data, Naval Air System Command |
| AECL | Atomic Energy Ctr, Lahore Pakistan or Atomic Energy of Canada Ltd |
| AERE | Atomic Energy Res Establishment |
| ANL | Argonne National Lab., DOE |
| ANL/AA | Argonne National Lab., IL. |
| ARH | Atlantic Richfield Hanford Co., Richland, WA. |
| BNL | Brookhaven National Lab., Upton, NY. |
| CONF | Division of Technical Information Extension (AEC, Oak Ridge, TN. |
| COO | Chicago Operations Office (AEC), IL. |
| DE | Department of Energy, Oak Ridge, TN. Department of Education, Washington, DC Inorganic Soil And Groundwater Chemistry Near Paducah Qaseous Diffusion Plant |
| DOE | Department of Energy, Washington, DC. |
| ES | Earth Satellite Corp., Berkeley, CA |
| FS | Economic Research Service, Washington, DC Foreign Agriculture Service, Washington, DC Forest Service, Ogden, UT |
| HRP | Bureau of Health Maintenance Organizations and Resources Development, Rockville, MD |
| INIS | International Atomic Energy Agency, Vienna (Austria) |
| LA | Los Alamos Scientific Lab., NM. |
| LBL | California University, Berkeley, Lawrence Berkeley Lab |
| N | National Aeronautics and Space Administration, Moffett Field, CA. Ames Research Ctr. |
| NVREG/CR | Nuclear Regulatory Commission, Washington, DC |
| ORNL | Oak Ridge National Lab., TN |
| PB | Clearinghouse for Federal Scientific And Technical Information, Springfield, VA |
| PNL | Battelle-Northwest, Richland, WA. Pacific Northwest Lab. |
| SAND | Sandia National Lab, Albuquerque, NM |
| SR | ARCTEC, Inc., Columbia, MD Arkansas Water Resources Research Center, Fayetteville. Booz-Alen Applied Research, Inc., Washington, DC. Southeast Asia Operations. Central Intelligence Agency, Washington, DC |
| TID | Department of Energy, Washington, DC. Economic Regulatory Administration. |
| UCB | California University, Berkeley. Inst. Of Engineering Research |
| UCIP | California University, Irvine. Dept. of Physics. |
| UCLA | California University, Los Angeles. |
| UCRL | California University, Berkeley. Radiation Lab. |
| UR | Rochester University, NY |

REPORTS NOT OWNED BY GMU

If the technical report you are looking for cannot be found in the library catalog or the SRIM cabinet, you may request a copy of it through **Interlibrary Loan (ILL)** (GMU students, faculty, and staff only). The request form is on the Web at <http://library.gmu.edu/services/ill.html>. Please include the accession number, report title, author, sponsoring agency, and other bibliographic information to help ILL find the report. Note that you found the record in NTIS. ILL will notify you when the report is available; approximate time is two weeks, depending on the report. Non-GMU patrons may order reports directly from NTIS, <http://www.ntis.gov>, or (703) 605-6585.

TECHNICAL REPORT WRITING GUIDES

These books will guide you in writing technical reports and other engineering and technical documents. They are located in the Fenwick Library Reference Room. For books that can be checked out, browse the stacks through call numbers PE 1475 to PE 1478 (floor 4C) and T11 (floor 5C).

Effective Writing for Engineers, Managers, Scientists. Tichy, Henrietta J, 2nd ed. New York : Wiley, c1988.

Fenwick Reference

PE1475 .T53 1988

How to Write & Publish Engineering Papers and Reports. Michaelson, Herbert B, 3rd ed.. Phoenix, AZ : Oryx Press, 1990.

Fenwick Reference

T11 .M418 1990

How to Write & Present Technical Information. Sides, Charles H, 3rd ed. Phoenix, Ariz. : Oryx Press, 1999.

Fenwick Reference

T11 .S528 1999

Writing and Speaking in the Technology Professions : a Practical Guide. Beer, David F. New York : IEEE Press, c2003.

Fenwick Reference

T11 .W75 2003

Technical Report Writing. NASA Technical Memorandum 105419. Available Online:

<http://grcpublishing.grc.nasa.gov/editing/vidcover.CFM>

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