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TALL BUILDINGS AND URBAN HABITAT

BIBLIOGRAPHIC

INFORMATION SYSTEM

Edited by

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ABSTRACT

BIBLIOGRAPHIC INFORMATION SYSTEM

KEYWORDS: bibliography, <u>information system</u>, data base, tall buildings, Council on Tall Buildings

In order to effectively organize, disseminate and utilize the growing mass of the data in the area of environmental research and technology appropriate to the urban environment and the tall building, the establishment of a bibliographic information system is described. It covers the work plan, the scopes of the bibliographic information, and the services to be rendered.

CHU, Pei-yue; Lu, Le-Wu, eds., 1980
BIBLIOGRAPHIC INFORMATION SYSTEM,
Fritz Engineering Laboratory Report No. 441.1,
Lehigh University, Bethlehem, Pa.

REFERENCES

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1. INTRODUCTION

In the area of environmental research and technology appropriate to the urban environment and the tall building, a growing mass of data has been accumulated. This data requires effective dissemination and utilization. The subject area includes all aspects of the conception, planning, design, and operation of tall buildings. Information covers not only the buildings themselves, but also their interaction with the urban environment.

The first and most urgent need of the project is to complete the establishment of a bibliographic data base on tall buildings — concentrating first on those aspects of the subject that deal with natural disasters, and subsequently extending the coverage to such problems as environmental impact, social and economical effects, systems methodology, and human requirements. It would point toward an information service to make available, both on a periodic and on an "on request" basis, bibliographic information about high-rise buildings. A valid implementation plan requires it because of the changing state of the art in the field. When the mechanism for implementation is established, then new information can be fed into the system.

In the first phase of the work, attention is being given to the following subject areas and capitalizes on the expertise of personnel in the several related Tall Building Council Committees:

- Wind Loading and Wind Effects (Committee 7)
- Earthquake Loading and Response (Committee 6)
- Motion Perception and Tolerance (Committee 36)
- Fire and Fire Effects (Committee 8A)
- Accidental Loading (Committee 8B)
- Probabilistic Aspects of Loading and Response (Committees 10, 19 and 26)
- Stiffness of Steel Building Structures (Committee 17)
- Stiffness of Concrete Building Structures (Committee 24)
- Structural Systems (Committees 3 and 21A)

441.1

Schedule 10B.11 identifies the various "Disaster Categories" and relates them to the Tall Building Council topical committees.

Schedule 10B.12 lists the sub-categories for six of these.

Subsequently, the work will build on the rest of the subject areas that are appropriate to high-rise buildings and the urban environment.

The bibliographic data base seeks to provide information on reports, computer programs, current research, and (eventually) on-line bibliographic service.

There are two parts to the thrust. One has to do with the data base of material unique to the Council and in its interest areas and collected from members and others around the world. The other thrust is related to the information contained in existing commercially available tapes, data bases, and information systems. An objective of the project is to develop a strategy or method by which professionals can access the data relating to tall buildings in the existing commercial information services. Part of the same strategy would be to

- a) Name the tapes (data files) that would contain relevant tall building information
- b) Indicate what descriptors or key-word profiles should be used in order to enter those files in order to retrieve the particular information that the user desired.

The existing information services include NTIS, COMPENDEX, and the National Information Service for Earthquake Engineering (NISEE).

The latter service in California provides information specifically with regard to earthquake motion, response and design. The others are Lockheed's DIALOG system and System Development Corporation's (SDC) ORBIT system. A list of information systems and data bases current in 1979 is given in Schedule 10B.18. A sample from Lockheed is shown in Schedule 10B.13A. It is important not to duplicate these existing sources. Rather, the tall building data base is being established in cooperation with such sources, the intent being to cover topics not included in existing services. Eventually it is hoped that such services will themselves contain categories or descriptors that will specifically relate to tall buildings.

2. PROGRESS TO DATE

The work to date, primarily with the support of the National Science Foundation, has made possible the expansion of the bibliographic effort for the Monograph (Council, 1978-81). Considerable effort has been expended to make this as complete as possible. There are more than 6000 citations in the Monograph bibliography. Appendix 1 is typical of a page that appears at the end of each of the 52 chapters. The full citations are a part of the complete bibliography which is included at the end of every volume, of which Appendix 2 is an example.

In cooperation with the Center for Information Sciences at Lehigh University, considerable effort was devoted to the development of a computerized bibliographic data base. That data base now contains more than 12,000 documents on all subject areas related to tall buildings and urban habitat. The development work was concentrated on both on-line and batch retrieval capabilities. At this stage, it is partially operational. The last hard-copy version was issued by NTIS (Joint Committee Report No. 8CS).

Revisions of the comprehensive "Bibliography of Joint Committee Reports" (Joint Committee, 1976) has been completed (Yuceoglu, et.al.,1979). Another bibliography of project reports (Council Report No. M153) is also being revised, some parts of which are included in the report just noted.

A visit was made to the National Information Science for Earth-quake Engineering (NISEE) at the University of California at Berkeley with the objective of familiarizing project staff with the facilities there and also for the coordination of activity. The groundwork was laid after making contact with the library, the personnel working on the ABSTRACT JOURNAL, and those managing computer program dissemination It is evident that our research efforts in the direction of computer-oriented interactive mode bibliographic work are not duplicating the services of the NISEE program.

A special bibliographic data base is being developed, based on batch processing and devoted to the documents related to natural and man-made disasters and hazards. This "special" Data Base on Dynamic Forces and Loads will consist of documents related to structural response to earthquake, hurricane, tornado, lightning (fire), flood and storm, fire and blast in buildings, and landslides. It will also contain references on human response and reaction to the social and economic consequences of disaster.

A first meeting has been held with the Standing Committee on Bibliography of the Council, and a further meeting will be held for reviewing the next phases of the work.

In commenting further on the past work done at Lehigh and under the auspices of the predecessor Joint Committee on Tall Buildings, two bibliographies have been prepared on the open literature (Joint Committee, 1973; Joint Committee, 1975b). Additional specialized bibliographies prepared for computer printout include bibliographic information on papers presented at the regional conferences previously noted (Council, 1979). Considerable effort has been devoted to both on-line and batch retrieval systems — all computerized. A complete list of all of the bibliographies prepared to date is given in the Appendix, Schedule 108.7.

These bibliographies have been used extensively by the editors and contributing authors in the preparation of the Monograph on Tall Buildings which is currently being published volume by volume by the American Society of Civil Engineers (Council, 1978-81).

Separate plans are being developed to complete an existing automated bibliographic data base, and to make significant input to the non-structural disciplines, especially social sciences, and to devise a mechanism to make this widely available to the many professions for which it is needed.

3. WORK PLAN

The plan of work to develop the tall building information system on a more formal basis is shown in the appendix, Schedule 10B.14. The anticipated requirements and services are shown in Schedule 10B.9.

4. SUMMARY

This study has been conducted because of the pressing need for the establishment of a bibliographic information system in order to effectively organize, disseminate, and utilize the growing mass of data accumulated under the initiative of the Council on Tall Buildings and Urban Habitat.

The report describes work plans for developing a computerized bibliographic data base, ranging from source identification, criteria for adopting a document into the system, and periodic data base update, to plans for disseminating the collected bibliographic information. The plans envision the possibility of cooperation with a commercial information system, such as Lockheed's DIALOG system or SDC's ORBIT system to establish a Tall Building Bibliographic Data Base for the purpose of on-line information retrieval. By providing the services of on-line information retrieval and by issuing selected bibliographies, the Council hopes to achieve the goal of disseminating the growing mass of information to those interested.

APPENDIX 1

Condensed References/Bibliography *

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Engineering Foundation 1970, Specifications for Structural Joints Using ASTM A325 or A490

Feder 1967a, Photoelastic and Theoretical Investigations of the Force Distribution of a Fillet-Feder 1967b, Stresses in Fillet-Welded Lap-Joints Feder 1967c, The Influence of the Thickness of the Throat on the Static Strength of the Fillet Fernlund 1961, A Method to Calculate the Pressure Between Bolted or Riveted Plates Fielding 1971, Shear in Steel Beam-to-Column Connections

Fielding 1972, Structural Behavior of Welded Beam-to-Column Connections Fielding 1973, Steel Frame Analysis and Connection Shear Deformation Fisher 1965, Analysis of Bolted Butt Joints Fisher 1970, Larger Bolted and Riveted Shingle Splices Fisher 1974, Guide to Design Criteria for Bolted and Riveted Joints

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Kato 1969, Brittle Fracture of Steel Heavy Section Members

^{*}Reprinted from the Monograph, Vol.SB, p.573

APPENDIX 2

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18, 19, A41, 43)

AISC, 1970

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^{*}Reprinted from the Monograph, Vol.SB, p.846

ABBREVIATIONS, ACRONYMS AND GLOSSARY*

ABSTRACT (/AB). Engineering Index, Inc., (EI) provides a concise summary for each document included in the database. For some English-language documents, there may be an author's abstract. British spellings may be present in author-prepared abstracts and the searcher may wish to include them in a free-language strategy for comprehensive retrieval. The use of terms that might occur in abstracts or titles is also particularly useful for search topics in new technology areas for which the SHE vocabulary may not yet be adequate.

AUTHOR (AU=). Up to 16 individual authors per document may be listed in an online record. The AU=field has been EXPANDed to illustrate the format of the entries.

CARD-A-LERT CODES (CA=). Card-A-Lert Codes (CAL Codes) are based on the subject groupings offered in the discontinued Card-A-Lert current awareness service. Since these codes can be considered to represent a broad classification scheme, they are useful in searching the COMPENDEX file.

Each document may be assigned from 1 to 6 CAL codes. The present set of CAL codes, defined in the EI user's manual (see page 8-18), has been in use in COMPENDEX since May 1970. Valid CAL codes are three-digit numbers above 400 and ending in a non-zero digit.

CODEN (CO=). The CODEN is the standard five-character code (with a sixth check character) which provides unique identification of a periodical title. Prior to October 1972, only the five-character codes were used.

CORPORATE SOURCE (/CS). The Corporate Source field is used to list the institutional affiliation (name and location) of the first author of the document. If no personal author name appears on the document, a corporate source entry is made for the institutional author, and ANON appears in the author field. Prior to 1976, documents with no personal author have no entry in the Corporate Source field.

DESCRIPTOR (/DE, /DE*/DF,/DF*). Descriptors are single-word or multiword Main Headings or Subheadings or Keywords. Descriptors in the field of engineering are assigned by EI from the controlled vocabulary Subject Headings for Engineering (SHE). SHE is the authority list for Main Headings and Subheadings and is arranged alphabetically by the first word in the Main Heading. Main Headings may appear in any of the following forms:

single word e.g., CLAY

phrase e.g., CLAY DEPOSITS

^{*}Adapted from Lockheed Dialog Information System-Search Manual, File 8. (See Schedule 10B.13A)

IDENTIFIER (/ID,IF). Identifiers are single-word or multiword "free-language terms" assigned from the author's text. Each document may have up to five identifiers.

In order to differentiate between single-word identifiers and the same single words extracted from multiword identifiers, the /IF suffix can be used.

INDEX TERMS. see "Identifier"

JOURNAL ANNOUNCEMENT (JA=). The information in this field represents the year and month the document appeared in the printed EI Monthly, e.g., JA=7701 for all documents which appeared in the January 1977 issue.

KEYWORD. see "Identifier"

SHE. see "Descriptor"

<u>TITLE (/TI)</u>. All titles are given in the original language or are transliterated, followed by the English translation, as necessary. Both the English and non-English title words are searchable.

Title words may reflect British spellings (for example, aluminium, sulphur, colour, etc.), but descriptors and identifiers reflect standardized American spellings.

<u>UPDATE (UD=)</u>. Search results can be restricted to a given update of the database, e.g., SELECT UD=7702. In addition to the individual update numbers, UD=9999 is always identical to the latest update in the database. A SELECTed update set can be COMBINEd with a subject set to retrieve citations in that update of COMPENDEX.

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 Bethlehem, PA.
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 PLANNING AND DESIGN OF TALL BUILDINGS, A Monograph, 5 Volumes,
 ASCE, New York. (Bibliographies)
- Yuceoglu, U., A.K. Pang, P.Y. Chu, and G.C. Driscoll, 1979.

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 No. M180(79). Lehigh University, Bethlehem, Pa.

INFORMATION SYSTEM -- REQUIREMENTS AND SERVICES

The main goal of the bibliographic effort is to collect, store, and make available for retrieval, a world-wide source of all the relevant data and literature pertinent to all aspects of tall buildings.

One objective is to collect information from the membership of the Council and others, to establish a data base**, and to maintain it.

Another objective is to prepare tapes from this data base that can be made available to information units around the world**.

A further objective is to develop an interaction with commercially operated information systems (such as Lockheed and SDC)** so that the information the Council collects can be made available to professionals throughout the world -- and that these users will be able to gain access to this information to get out of it what they want.

A. Services to be Provided (Lehigh Data Bases)

- 1. The retrieval of document information by
 - (a) Committee (subject matter)
 - (b) Author name
 - (c) Topic (or descriptor, or identifier)
- 2. The preparation of hard-copy report. Examples are:
 - (a) Current Awareness reports("Recent Acquisitions")
 - (b) Supplement to Bibliography (M165)
 - (c) Bibliography of Council Reports (M180)
 - (d) Bibliography of the project reports (M153)
 - (e) "Selected bibliography"
- 3. Search Capabilities:
 - (a) Current Awareness Search (on-line)
 - (b) Cumulative Search (on-line or batch process)

B. Services to be Provided (Commercial Information Systems)*

- 1. Search by subject (Identifiers or descriptors)
- 2. Search by committee (TB numbers)
- 3. Search by any of the established fields
- 4. Document delivery

^{*}Encourage development of subsets according to TB descriptors by commercial firms.

^{**}This could be through a group such as EI or NTIS.

C. Types of Output Reports Required (Accessing the Lehigh Data Base)

- 1. Complete list of references by each category (committee) (Example: Reports 8 & 8S)
- 2. Supplements to Item C-1 above, as needed
- 3. Current Awareness Reports
 - (a) All recent acquisitions (to be issued to headquarters staff)
 - (b) Recent acquisitions to Council personnel, as needed
- 4. Special search requests
 - (a) By committee (category)
 - (b) By title (keywords)
 - (c) Other search
 - (d) Selected Bibliography
 - (e) Bibliography of Project Reports

D. Data Base Characteristics (Lehigh)

- 1. Input: (a) Manual input from Council-sponsored conferences and symposia
 - (b) Input collected from Council members
 - (c) Other input that comes to attention of staff
 - (d) Description of current research
 - (e) Project descriptions, case studies
- 2. Output: (remote terminals with printers and interactive (or on-line) search capabilities -- see also items A.1 and A.3)

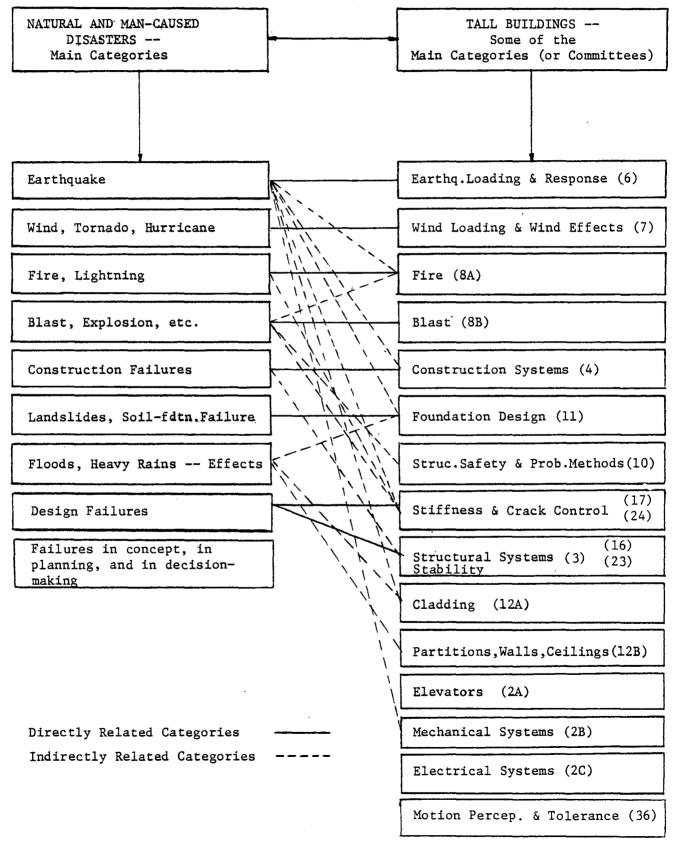
E. Data Bases

- 1. M180 data base (tape)
- 2. M165 data base
- 3. Commercial data bases

INTERACTION DIAGRAM

FOR

DISASTER CATEGORIES AND TALL BUILDING TOPICAL AREAS*



^{*}See Schedule 10B.12 for details.

TABLE FOR DISASTER DATA BASE SUB-CATEGORIES AND TALL BUILDING CATEGORIES

| EARTHQUAKE | | | | |
|---|---|--|--|--|
| Natural and Man-Made Disasters Subcategories | Tall Building Main Categories) (or committees) | | | |
| A. Code requirements: earthquake risk | Earthquake Loading and Response (6) Structural Safety and Probabilistic Methods (10) Commentary on Structural Standards (13,20) | | | |
| B. Soil-foundation effects in earthquakes | Earthquake Loading and Response (6) Foundation Design (11) | | | |
| C. Ground motion and measurement | Earthquake Loading and Response (6) | | | |
| D. Dynamic response | Earthquake Loading and Response (6) Gravity Loads and Temperature Effects (5) Design Methods Based on Stiffness (17) Stiffness and Crack Control (24) Cladding (12A) Motion Perception and Tolerance (36) | | | |
| E. Field observations | Earthquake Loading and Response (6) | | | |
| F. Analysis and design | Earthquake Loading and Response (6) Load Factor (Limit States) Design (19) Limit States Design (26) Structural Systems (3) Selection of Structural Systems (21A) Gravity Loads and Temperature Effects (5) Quality Criteria (9) | | | |
| G. Damage evaluation and repair | Earthquake Loading and Response (6) | | | |
| H. Economic and social consequences | Earthquake Loading and Response (6) | | | |
| I. Human behavior in disaster | Fire (8A) Earthquake Loading and Response (6) | | | |



| WIND | | | |
|---|--|--|--|
| Natural and Man-Made Disasters Subcategories | Tall Building Committees (or categories) | | |
| A. Code requirements: risk | Wind Loading and Wind Effects (7) Structural Safety and Probabilistic Methods (10) Commentary on Structural Standards (13,20) | | |
| B. Wind tunnel modeling | Wind Loading and Wind Effects (7) | | |
| C. Meteorological factors | Wind Loading and Wind Effects (7) | | |
| D. Damage evaluation and repair | Wind Loading and Wind Effects (7) | | |
| E. Dynamic response | Gravity Loads and Temperature Effects (5) Wind Loading and Wind Effects (7) Design Methods Based on Stiffness (17,24) Motion Perception and Tolerance (36) | | |
| F. Analysis and design | Wind Loading and Wind Effects (7) Load Factor (Limit States) Design (19,26) Structural Systems (3,21A) Quality Criteria (9) | | |
| G. Wind loading mechanisms | Wind Loading and Wind Effects (7) | | |

| FIRE | | | | |
|---|---|--|--|--|
| Natural and Mań-Made Disasters Subcategories | Tall Building Committees (or categories) | | | |
| A. Code requirements: philosophy of risk | Fire (8A) Structural Safety and Probabilistic Methods (10) Commentary on Structural Standards (13,20) | | | |
| B. Structural behavior | Gravity Loads and Temperature Effects (5) Load Factor (Limit States) Design (19,26) Structural Systems (3,21A) Quality Criteria (9) | | | |
| C. Damage and repair; structural protection | Fire (8A) Cladding (12A) | | | |
| D. Non-structural aspects | Fire (8A) | | | |
| E. Design-architectural | Fire (8A) Architectural-Structural Interaction (12) | | | |
| F. Economic, social consequences | Fire (8A) | | | |
| G. Panic behavior | Fire (8A) | | | |

| BLAS | BLAST | | | | |
|--|--|--|--|--|--|
| Natural and Man-Made Disaster Subcategories | Tall Building Committees (or categories) | | | | |
| A. Code requirements: risk | Blast (8B) Structural Safety and Probabilisitc Methods (10) Commentary on Structural Standards (13,20) | | | | |
| B. Loadings; structural behavior | Blast (8B) Load Factor (Limit States) Design (19,26) Structural Systems (3,21A) Gravity Loads and Temperature Effects (5) Quality Criteria (9) | | | | |
| C. Structural details | Blast (8B) Cladding (12A) | | | | |
| D. Damage evaluation and repair | Blast (8B) | | | | |
| E. Economic, social consequences | Blast (8B) | | | | |
| F. Panic behavior | Fire (8A) | | | | |

| LANDSLIDES | | | | |
|---|---|--|--|--|
| Natural and Man-Made Tall Building Committees Disasters Subcategories (or categories) | | | | |
| A. Code requirements | Commentary on Structural Standards (13,20) Structural Safety and Probabilistic Methods (10) | | | |
| B. Soil-Foundation effects | Foundation Design (11) | | | |
| C. Structural effects; analysis and design | Structural Systems (3,21A) Foundation Design (11) Limit States Design (19,26) | | | |

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| FLOOD AND STORM | | | |
|---|---|--|--|
| Natural and Man-Made Disasters Subcategories | Tall Building Committees (or categories) | | |
| A. Code requirements | Commentary on Structural Standards (13,20) Structural Safety and Probabilistic Methods (10) | | |
| B. Soil-foundation effects | Foundation Design (11) | | |
| C. Loads | Gravity Loads and Temperature Effects (5) Wind Loading and Wind Effects (7) Cladding (12A) | | |

LOCKHEED - DIALOG CITATIONS

DIALOG File8: COMPENDEX 70-79/SEP (Copr. Engineering Index Inc.)

5 of 858) User 8876 30nov79 (Item

ID NO. - E1790973778 973778

PREDICTION OF FREE-FIELD EARTHQUAKE GROUND MOTIONS.

Crouse, C. B.

Fugro, Inc. Long Beach, Calif

Proc of the ASCE Geotech Eng Div Spec Conf: Earthquake Eng and Soil Dyn. Pasadena, Calif. Jun 19-21 1978 Publ by ASCE. New York, NY, 1978 v 1 p 359-379

The main problems associated with the prediction of both Fourier and response spectra that are addressed in this paper are the effects due to several types of soil-structure interaction and local soil conditions and the possible blasing of spectral predictions from the use of a large amount of data from the 1971 San Fernando earthquake. In general one type of soil-structure interaction may have significantly modified the ground motions recorded in multi-story buildings with relatively large base dimensions and foundation mass. type of interaction was a suppression of high frequency wave amplitudes by the foundations of these buildings. A comparison was made between the spectra predicted using two Fourier spectra attenuation relations, one derived from a small amount of San Fernando data and another derived using all San Fernando data. The results of this comparison indicate that the overemphasis of San Fernando data can lead to much higher estimates of the spectral levels in the near field when epicentral distances are used in the derivation of the attenuation relation. Refs.

DESCRIPTORS: *SOIL MECHANICS, (FOUNDATIONS, Soil-Structure Interaction), EARTHQUAKES, (SEISMIC WAVES, Spectrum Analysis), (BUILDINGS, Earthquake Resistance), IDENTIFIERS: GROUND MOTION

CARD ALERT: 483, 931, 484

973014 ID NO.- EI790973014 AM BROADCAST RE-RADIATION FROM BUILDINGS AND POWER LINES. Balmain, K. G.; Belrose, J. S.

Univ of Toronto, Ont IEE Conf Publ n 169 pts 1 and 2, Int Conf on Antennas and Propag, London, Engl, Nov 28-30 1978. Engl, 1978 p 268-272 CODEN: IECPB4 Publ by IEE, London.

Existing am broadcast antenna sites are being encroached upon more and more by large man-made structures such as high-rise buildings, smoke stacks and power lines, and new antenna sites are almost inevitably close to such structures. The broadcasters, their consultants and government regulatory agencies are in many cases greatly concerned about the strength of re-radiation (or scattering) from these structures and the possibility that the re-radiated signal strength will be great enough to fill in radiation pattern nulls designed to protect the coverage areas of distant co-channel or adjacent-channel services. This work describes experimental measurements and theoretical calculations on the re-radiation from model high-rise buildings and power lines, both constructed approximately using a 1:1000 nominal scale factor. DESCRIPTORS: (*RADIO TRANSMISSION, *Scattering),

WORK PLAN FOR BIBLIOGRAPHIC INFORMATION SYSTEM

A. Source Identification

- 1. Meet with the Advisory Committee on Information and Bibliography (chaired by Gerard F. Fox of Howard, Needles, Tammen & Bergendoff).
- 2. Identify the requirements of the Information System and the services to be provided. (See Schedule 10B.9)
- 3. Identify the possible commercial information sources.
 - (a) Identify applicable tape service and data files. (Such as EI and NTIS) (See Schedule 10.5)
 - (b) Identify commercial information services (Such as Lockheed and SDC)
- 4. Identify other sources of tall building documents from all over the world utilizing, for example, the tall building committees (or professional contacts) in each country.
- 5. Develop a strategy or method by which the identified commercial information sources can be accessed (through descriptors or other identifiers) in order that the desired tall building information may be retrieved.

B. Document Collection and Subject Classification

- 6. Identify criteria for listing a document (See Report 441.7).
- 7. Continue to collect documents and to classify and organize them according to the tall building committees (or subject areas). This is to be done manually at the beginning until the development of automated procedures is completed.
- 8. Continue the development of identifiers. (Council Report M7B is the present guideline.)
- 9. Develop regularized procedures for manual collection, storage and retrieval of documents. (Report 441.7) (Schedule 10B.19)
- 10. Expand the collection of books and reports on tall buildings (currently the largest collection in the world) into a "Tall Building Library" at Lehigh University available to all interested persons.

C. Software Improvement and Development

- 11. Develop software and procedures for the automated collection and classification of documents.
- 12. Develop software and procedure for the automated input of the collected documents into the Bibliographic Data Base.
- 13. Complete the development of an automated bibliographic data base (both on-line and batch).
- 14. Develop software for retrieval.

D. Data Base Update

- 15. Continue to update the bibliographic data base (manually and using the computer) with the latest information received. This will involve interaction with the topical and advisory committees of the Council of Tall Buildings and Urban Habitat. (At the beginning, manual updating is employed.)
- 16. Develop a criteria for purging.

E. Bibliographic Reports

- 17. Prepare new bibliographic report to supplement the prior issue.
- 18. Explore the development of an abstract journal, perhaps with ASCE or EI or NTIS as the publisher.

F. Dissemination and Distribution

- 19. Identify "marketing agency". Whereas the appropriate agency to handle the regular marketing might be Lehigh University, there may be mutual advantages in capitalizing on existing efforts such as the National Technical Information Service (NTIS), or the professional societies (such as ASCE) working with Engineering Index Service (EIS), or commercial firms such as Lockheed and SDC.
- 20. Develop a mechanism for dissemination (distribution of bibliographic reports and information services to be offered).
- 21. Issue Bibliographic reports.
- 22. Issue or arrange for issue of tapes.
- 23. Arrange for the issue of the appropriate material to commercial information service.
- 24. A major announcement effort would be made to "advertise" the availability of the various portions of the tall building information system.

CURRENT INFORMATION SYSTEMS AND DATA BASES**

| Name of Data Base | Operational Mode | Subject Areas (Data Base Contents) | Services Provided | Affiliation |
|--|------------------------------|--|---|--|
| DIALOG-Lockheed Information Systems | on-line, interactive | .Scientific and Technical Data Bases# .Educational, Psychological, Sociological Business Data Bases# | .Current Aware- ness .Cumulative Search | Lockheed Infor- mation Systems Division |
| ORBIT-System Development Corporation | on-line, interactive | Science and Technology* Social Science* Business* | .Current Aware- ness .Cumulative Search | Systems Develop- ment Corporation |
| ASIAC (Aerospace Structures Infor- mation and Analysis Center) | on-line, interactive s | Structural Dynamics Structural Mechanics Structural Stability | .Current Aware- ness .Cumulative Search | U.S. Air Force Flight Dynamics Laboratory,W-P AFB, Ohio |
| SPINES (Science and Technology Policies Infor- mation Exchange System) | on-line, interactive | ArchitectureUrban PlanningUrban SociologyUrban Transportation | .At present, the Data Base is in development stage | UNESCO-Paris (United Nations) |
| NTIS (National Technical Information Service) | on-line, interactive | .Uses DIALOG and ORBIT systems and also NTIS Data Base to search technical, scientific, etc. Data Bases | .They do the document search and retrieval on request | U.S. Department of Commerce |

^{**}Selected from Encyclopedia of Information Systems and Services, by J. Schmittroth, Gale Research Co., Detroit, Michigan, 1978.

[#]Under these categories there are several data bases such as CHEMABSTRACT, COMPENDEX, INSPEC, SCISEARCH, BIOSIS, SOCIAL SCIENCE CITATION INDEX, etc.

^{*}Under these general groups there are several data bases such as CHEMDEX, COMPENDEX ENERGYLINE, ISMEC, LABERDOC, NTIS, MANAGEMENT, etc., etc.

| Name of Data Base | Operational Mode | Subject Areas (Data Base Contents) | Services Provided | Affiliation |
|--|---|--|--|---|
| NISEE (National Information Service on Earthquake Engineering | mainly a library service | .On all aspects of earthquake engineering and related fields | .Abstract journReference .Literature searches .Computer pro- gram search | University of California- Berkeley, National Science Foundation |
| SSIE (Smithsonian on-line Science Information (through Exchange) SDC Search Service) | on (through SDC Search | .on-going research:.Agricultural Sciences | .File searches .Bibliographies | Smithsonian Institute |
| | | .Behavioral Sciences | | |
| | | .Medical Sciences | | |
| | • | .Social Sciences | | |
| | | .Physical and Engineering Sciences | | |
| SCISEARCH | on-line (through DIALOG- Lockheed) | Physical and Life Sciences | | Institute of Scientific Information |
| ARIANE Data Bank | on-line interactive or batch | Building and environmental technology | Catalog of building components, Bibliographic search on regulations and standards in the building and construction fields. | Federations of Buildings and Public Works. Center for |

| Name of Data Base | Operational Mode | Subject Areas (Data Base Contents) | Services Provided | Affiliation |
|---|---|--|--|--|
| BYGGDOK (Institutet for Byggdokumentation | on-line, interactive by Scandinavian Subscribers | .Planning .Housing .Building and Civil Engineering | .Bibliographic Search .Selected Dissemination of Information (SDI) Services | Swedish Institute of Building Documentation Stockholm, Sweden |
| GEODEX INTERNATIONAL, INC. Information Retrieval Systems | off-line | .Architecture .Soil Mechanics .Foundation engineering .Structural | .Abstract of worldwide Civil Engineering and Architectural periodicals. | = |
| - | | engineering and related Civil Engineering fields | | |
| IDAS off-line (Instant Data Access Control) | off-line | .Building Codes Standards .Manufacturer's products | .Designs Infor- mation Systems for all phases of Architecture, Engineering | Center, Inc. New York, N.Y. |
| | | System and Services Building research data and specifications | .Interior design and Construction | |
| AMERICAN INSTITUTE OF ARCHITECTS Research Corporate Research Informate Retrieval System | | .Applied research in the social, behavioral, envirmental, and technical sciences | .Literature searching using Architectural Retrieval Index | American Institute of Architects Research Corp. Research Infor- mation Retrie- val System Washington, D.C. |
| ASCE Information Services | on-line, through compendex | .Civil Engineering | .Abstract and Index Services .Current Aware- ness Service | American Society of Civil Engineers New York, N.Y. |

| Name of Data Base | Operational Mode | Subject Areas (Data Base Contents) | Services Provided | Affiliation |
|--|---------------------|--|---|---|
| CIHB (Canadian Inventory of Historic Building | off-line gs) | .Covers 200 years of Canadian build-ings, includes architectural styles, structural components and interior trim | Provides rapid retrieval of information on geocodes and machine readable drawings of buildings of early Canadian architecture | Canada Dept. of India and Northern Affairs National His- toric Parks and Sites Branch Canadian Inventory of Historic Buildings Ottawa, Canada |

A PLAN FOR COLLECTION, STORAGE, AND RETRIEVAL (Item B9 of Schedule 10B.14)

- A. Council Headquarters will contact its membership (and other potential authors such as those whose work is cited in the Monograph) to request input. This would be done on an annual basis. (See Report 441.7, especially Schedule 10B.16)
- B. Material is received at Council Headquarters.
- C. Check for completeness particularly the assignment of TB numbers to identifiers.
- D. Screen at Headquarters for content. In cases of doubt, forward to appropriate topical committee for review. Record made at Headquarters (use one line hibliographic form). Material (abstract; documents) sent to Information Processor (ASCE, EI, NTIS, or other) (as collected? Weekly? Monthly? Other?) Send documents to Information Processor (or Engineering Societies Library).
- E. Information Processor establishes CTBUH Set and Subsets in printed form (TB Abstract)
- F. Information Processor:
 - a) Checks for duplicates.
 - b) Assigns subject category number (Use TB Nos.)
- G. New Abstracts inserted into Information Processor's data base.
- H. Collection prepared of the new Abstracts. (TB Abstracts) (Quarterly)
- I. Disseminate Abstracts in hard copy (soft cover)
- J. Guidelines prepared for users on how to access the new information, the old, and information from other data bases not covered by EI.
- K. Marketing

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