

7530

United Nations
Economic Commission for Africa



Report on some aspects of the Implementation of a Transport Data Base in Sub-saharan Africa

(Work Programme
Activities 4.2 - 4.4)

June 1993

Contents

Introduction	v
Chapter I	
Processes and structures related to transport data collection at ECA	1
Chapter II	
Computing resources needed for the development of a transport data base	
Existing information systems at ECA.....	5
Existing Computer equipment at ECA	6
Future development concerning computing capacity at ECA.....	10
Specifications for additional computing resources at ECA.....	10
Chapter III	
Recommendations for an appropriate infrastructure of the data base	
Information collection.....	13
Man power needed for the transport data base	15
Information distribution.....	16
Conclusion	19
Annexes	
Information Services	1
Data bases	13

Introduction

This report covers the following activities of the work programme for the Transport Data Base Project for Sub-saharan Africa at the Transport, Communications and Tourism Division (TCTC) of the United Nations Economic Commission for Africa (UN-ECA):

- 4.2 Review of the existing processes and structures related to transport data collection within ECA
- 4.3 System analysis to determine computing resources needed for the development of transport data base
 - 4.3.1 Systems analysis
 - 4.3.2 Study existing information systems including computing capacity at ECA
 - 4.3.3 Specifications for additional computing resources at ECA
- 4.4 Preparation of recommendations for appropriate infrastructure for transport data base.

The activities have been carried out during the time from 01/03/1993 to 15/06/1993 by Mr. Herbert E. Girkes, Pan African Development Information System, United Nations Economic Commission for Africa.

Chapter I

Processes and structures related to transport data collection within ECA

Concerning the field of transport data collection at ECA, two of its substantive divisions are involved: the Transport, Communication and Tourism Division (TCTD), and the Statistics Division (SD). TCTD requires this information for use by its staff preparing technical publications, documents for meetings and conferences and for conducting research and delivery of programme outputs as may be required. Data for use in numerical or non-numerical data bases at TCTD's level have not been anticipated up to now. The Statistics Division on the other side requires these data in order to fulfil its mandate concerning the production of its publications (*African Statistical Yearbook* and the *African Socio-Economic Indicators*). Data used by the SD are mainly based on country information and are stored in its Regional Statistical Data Base System (RSDBS) in the form of time-series.

The processes and structures for collection of the required information in the field of transport in Africa have so far not been adequately developed to satisfy the demand, in particular concerning the needs of TCTD. Up to now most of the data collection at TCTD has been done on an *ad hoc* basis.

Major sources for data needed for the preparation of the various TCTD publications and surveys have so far been based on:

- **The African Statistical Yearbook** (maintained at ECA's SD): The primary sources of maintaining the *Yearbook* are the national statistical offices (NSO) of ECA member States. These data are subsequently stored into the RSDBS and used for the production of the following standard tables in the *Yearbook*: railways, road transport, sea-borne shipping, air traffic, international tourist travel, and communications. The railway table contains information on: length of railways; rolling stock (locomotives, carriages, and wagons); passenger-km; and net ton-km. The road transport tables contains: length of principal roads, secondary roads, and other roads as well as the total

length of roads; length of paved roads; passenger cars and commercial vehicles in use; and the registration of new motor vehicles. Sea-borne shipping tables inform about goods loaded and goods unloaded. Concerning air traffic data is printed on freight loaded and unloaded, and passenger arrivals, departures, and transit passengers. Tourist arrivals, tourist nights and beds available constitute the international tourist travel table. The communications tables contains: letter mail domestic and foreign (broken down by received and sent); telephones in use; radio receivers; and TV receivers. (The *Indicators* contain a single table on motor vehicles, radios and televisions.)

- The annual reports prepared by the various national transport agencies, i.e. the ports annual reports, the railways year-books and airlines statistical returns etc. They are normally prepared by national offices (mainly the NSOs) of the various transport modes and are often supplemented by those available in ECA. This type of data often suffers from serious time lags.
- Statistical publications of the various international organizations, i.e. UNCTAD review, ICAO statistics, the World Bank annual reports etc. This category of data sources is often available in the ECA library but can sometimes be obtained directly from the publishers on request.
- Data collected by various experts of TCTD while on mission. ECA staff is always mandated to collect relevant country documents and publications in transport and communications and/or socio-economic development data of the African countries visited.
- Statistical reports available in the various subregional organizations, i.e. port management associations, SATCC, UAR, International Road Federation etc.
- Statistics included in the various national studies in transport, i.e. sectoral master plans.
- Statistics which are available from existing transport data bases, i.e. Advanced Cargo Information System (ACIS) developed by UNCTAD covering railways, ports and container statistics.

At present ECA is undertaking an effort to link itself with data bases at the World Bank. A task force has been set up in order to determine the data needs at ECA and to what extent World Bank data could help to fill gaps and help to be more

up-to-date on statistical information. TCTD would benefit from immediate access to such data, in particular as the World Bank often has better capacities, financial and human resources, in order to collect primary data in African countries. Several models have been discussed on data transmission, in particular the transfer of magnetic tapes, micro-computer diskettes and on-line access to World Bank computers. At the time of the writing of this report no such link has yet been established, but chances are good that in the near future ECA will receive such data.

The anticipated establishment of a regional African transport data base at ECA, and the then necessary implementation of well defined processes and structures on data collection at TCTD's level, will eliminate the dependence on various publications and sources as given above. Some of the publications which ECA now depends on are not regularly produced and some of the regular ones reach ECA when their contents is already out of date. To overcome these problems, experts from TCTD often visit selected countries for data collection. This method is time consuming and sample data collected has in many cases not been representative depending on the number of countries visited and the quality of data available.

It is therefore clear that a coordinated system which can assure the proper organization and availability of transport statistics is overdue. The establishment of national data bases in the countries to feed a regional one, to be established in ECA, would be the answer to the problem.

Chapter II

Computing resources needed for the development of a transport data base

In order to evaluate the needed computing resources for the development of a transport data base at ECA the following areas have to be checked:

- existing information systems at ECA;
- existing computer equipment; and
- future development concerning computing capacity at ECA.

Existing information systems at ECA

Only two information systems are existing at ECA: the Regional Statistical Data Base System (RSDBS) at ECA's Statistics Division and the Pan African Development Information System (PADIS). As already described above, the RSDBS deals only with statistical data in time-series format while PADIS maintains and distributes non-numerical data bases. Data on paper stored in files in other division cannot be considered as an information system as they lack any systematic approach and searchability is limited to manual activities.

Both systems are based on the HP 3000, thus limiting access to users with an HP terminal or a micro-computer connected to the mini-computer. Searching data in the statistical data base is awkward and most TCTD personnel has not been trained in the use of this data base. Thus, the help of personnel from Statistics Division is required in order to get information from this system.

As mentioned earlier, SD planned to migrate the RSDBS to micro-computers. As far as TCTD is concerned this would mean access to transport, communications and tourism data on their own micro-computers. But this would be limited to the few series as described for the appropriate tables in the *African Statistical Yearbook*. It is obvious that those data would not meet all data needs at TCTD.

PADIS is in particular maintaining bibliographical data bases. Even though these data bases contains abstracts and references concerning transport related documents of the so-called "grey literature" category (e.g. documents which are not reproduced for a greater audience), it is questionable whether these information might fill existing information gaps at TCTD. Only if TCTD, in close co-operation with PADIS, would establish a systematic approach of feeding the existing bibliographic data bases with relevant, transport-related documents, this information system could be of better use for TCTD.

PADIS maintains, apart from bibliographical data bases, as well a data base on development experts. As this data base is well introduced in Africa - several African countries as well as a number of ECA divisions have adopted the data base format - it could be of great help to TCTD to establish a data base on transport experts as part of the transport data base, using the PADIS format. Again close co-operation is needed to achieve any significant impact.

Existing computer equipment at ECA

ECA has long been depending on a single source of computer power: a Hewlett Packard (HP) 3000 mini-computer purchased in the early 80's within the framework of a UNDP-financed information systems project, the Pan African Development System (PADIS). Only recently ECA acquired ca. 300 micro-computers for office automation purposes, thus permitting decentralized computing within ECA.

Additionally two WANG Virtual System (VS) mini-computer systems have been purchased of which one is installed under the United Nations Transport and Communications Decade for Africa (UNTACDA) and the second is installed at Administration, Personnel Section.

All three mini-computer systems, the HP 3000 and the two WANG VS, can no longer be considered to be up-to-date equipment in a changing world of micro-computers which became so powerful that they even challenge the computing power of mainframe computers.

The installed HP 3000 is basically serving the following purposes:

- **Administrative computing;** this includes payroll, finance and budget tables, the maintenance of ECA's manning table, mailing addresses, etc. The programming and maintenance of this

type of computing is managed by ECA's Information Systems Section (ISS) and its four programmer/analysts.

Programmes are mainly written in-house using COBOL language.

- **Statistical data base computing;** initially created with PADIS financial support for the production of ECA's African Statistical Yearbook, the Statistics Division of ECA is responsible for the maintenance of several data bases containing time-series on statistical data concerning the African continent. ECA staff outside the Statistics Division have access to this data base, and *ad hoc* request from outside ECA are handled by the Statistics Division. The main data base contains over 140,000 time-series on African social and economic data.

The data base uses IMAGE 3000, a proprietary HP data base system, and is extended for table generation and queries with in-house COBOL programmes.

- **Non-numerical computing;** PADIS is maintaining its bibliographical data base system using the Canadian International Development and Research Centre's (IDRC) bibliographical data base system MINISIS. This system is written entirely in SPL, a HP-unique programming language, and thus not transportable to other systems. PADIS maintains a number of data bases under this system: for instance PADdev, a bibliographical development information data base, PADexp, a data base on experts, PADins, a data base on development institution, etc.

- **Networking;** the HP 3000 is connected using a modem to ECA's alternate voice and data (AVD) line. This allows the connection to the United Nations Headquarters computer systems. At the moment selected users within ECA have access to this facility within a daily two hour connection window.

- **User-initiated computing;** in some substantive divisions within ECA individual users have developed their own programmes in order to fulfil their work assignments. As an example, in the Socio-economic Research and Planning Division (SERPD) a data base has been programmed in FORTRAN. Other users are still using the HP 3000 as a word processing machine, despite the above described switch to micro-computers.

Reviewing the use of the HP 3000, it must be mentioned that there are plans to migrate from this outdated equipment to

more up-to-date machinery: the on-going Integrated Management Information System (IMIS) project that will be introduced for UN Administration world-wide will be based on a modern UNIX mini-computer, connected to local area networks (LANs), using a Novell operating system, within administrative units and will also providing wide area networking (WAN) facilities to all of ECA; ECA's statistics division is planning to migrate its statistical data bases to micro-computer based LANs; with the arrival of MINISIS version H, IDRC's non-numerical data base system written in the programming language C and thus implementable on a wide range of computer systems including micro-computers, PADIS is planning to move its non-numerical data bases to micro-computers.

The lack of modern, user-friendly software for the HP 3000, its word processor is much more cumbersome to use than any micro-computer based word processing system, will finally force the other users off the HP 3000 as well, once further support to it from ISS has ceased.

UNTACDA's WANG VS system, located at TCTD, has been basically used as a word processing machine. No attempt was made to acquire or create applications beyond this facility. It must be mentioned here as well that the equipment is below today's standards in particular as far as user applications are concerned. Software and hardware for this machine are extremely expensive compared with micro-computer hard- and software. In addition it should be mentioned that the maintenance of this machine incurs high cost, way above similar requirements for micro-computer equipment.

The second WANG VS system, located at Personnel Section, is used mainly for historical reasons: New York Headquarters, once equipped mainly with WANG computers, could provide software for the handling of P5-actions, a major task within Personnel Section. All other computer-based work is executed on micro-computers: word processing, spreadsheet work, and small data bases. As with other administrative work this use of the WANG VS system will cease once the IMIS project is fully implemented. Personnel Section will be fully integrated within the in-house administrative LAN and its connection to Headquarters. The WANG computer will be phased out.

The majority of computer power within ECA is nowadays based on micro-computers. Two different models have been introduced to ECA: the standard machines (all machines are NCR) are equipped with a 80386 20 MHz processor, a 40 Mega Byte (MB) hard disk, a 3 1/2 inch, 1.44 MB diskette drive and a colour screen; the "power-user" machines are equipped with a

100 MB hard disk and an additional 5 1/4 inch, 1.2 MB diskette drive.

Within three ECA divisions LANs are to be set up: Administration, Statistics Division and SERPD. There will be a connection between Statistics Division and SERPD in order to allow access to their respective data. These LANs are not yet fully implemented and appropriate software solutions are still missing. In the long range it is planned to network all substantive divisions, including TCTD.

The existing micro-computers are loaded with word processing software, in this case WordPerfect 5.1, a spreadsheet programme, Quattro Pro 2.0, and a data base programme, Paradox 3.5. This software has been chosen by UN Headquarters as a standard throughout the system. All ECA staff has been trained in word processing and selected staff has been trained in the use of Quattro Pro and Paradox.

Additional software like graphics and desktop publishing software has been installed at selected user sites. For very few staff members training in desktop publishing was provided by ISS. The major users of this type of software, in the Documents and Publishing Service, ISS and PADIS, have trained themselves or had previous experience. Graphical User Interfaces (GUIs) like MS-Windows have not been installed widely within ECA.

Some major problems concerning the implementation of the transport data base are still existing: (1) the "standard" machines are under-equipped as far as speed, available memory and storage facilities are concerned; (2) "power-user" machines are inadequate in speed and available memory; (3) network boards are not installed; (4) useful peripherals like scanners, CD-ROM readers and archival storage facilities like Bernoulli boxes are not available; (5) a standard GUI for use within ECA has not yet been identified; and (6) the majority of printers is composed of inkjet printers instead of faster and higher quality laser printers. This set up stems mainly from the fact that the computerization of ECA was rather geared at office automation than a more sophisticated network design. With the arrival of IMIS and dropping hardware prices for micro-computers some of these problems might be solved soon.

Future development concerning computing capacity at ECA

A major change on computing capacity at ECA will be reached once the Integrated Management Information System (IMIS) has been implemented. Even though this system is primary for use by administration it will serve as a "backbone" local area network (LAN) for all other LANs at divisional level. This means LANs will be introduced in the various substantive divisions and hooked up to the "backbone" LAN, thus allowing access to all other LANs or individual computers connected.

The "backbone" LAN will be connected by telecommunication to the main computer at UN Headquarters and from there ECA will have access to data world-wide. TCTD could benefit from such development as existing transport related data bases within the UN system could be consulted on-line, thus eliminating time-consuming dispatch of magnetic tapes, diskettes or printed output.

Specifications for additional computing resources at ECA

It is evident that the transport data base should be situated at TCTD. A divisional LAN should be set up to link all TCTD sections in order to allow access to a central data base within TCTD as well as to enter data related to different transport modes. Taking into account the plans to connect divisional LANs to the ECA "backbone" LAN this would *not* limit the access of other divisions to this data base as gateways will connect basically each ECA micro- or mini-computer. In the first phase, before IMIS is fully implemented and all divisions are connected to the "backbone" LAN, it would be necessary to provide means within the division to communicate with computers outside Addis Ababa.

As outline above, ECA is mainly micro-computer bound. Even after the installation of IMIS the major source of computing power will be the micro-computer. Therefore it is recommended to base the regional transport data base on a micro-computer environment.

Existing micro-computers could easily be upgraded with additional memory (at least 8 MB) and larger hard disks (at least 300 MB) to meet networking requirements. Additional peripherals like CD-ROM (Compact Discs, Read Only Memory)

readers and scanners could be easily connected to the existing machines. But it is evident that the main file server for the system has to be purchased. This machine should be a powerful 80486DX 66 MHz micro-computer, equipped with at least 32 MB Random Access Memory (RAM), 1 Giga Byte (GB) or above of hard disk, and appropriate backup facilities.

A second powerful machine is recommended to be used for optical character recognition (OCR), CD-ROM production (see below), desktop publishing as well as a communications gateway to other networks including the backbone network which will be installed under IMIS. To secure the proposed communication to outside sites, a modem has to be connected to a telephone line in order to dial up these other networks or data bases worldwide. This machine, a 80486DX 66 MHz with 16 MB of RAM and a 500 MB hard disk, should be connected to a high resolution scanner, a high speed laser printer (12 pages per minute or above) and a colour-postscript laser printer (for map printing).

As far as software is concerned it is recommended that TCTD settles for the popular Windows systems under the general network software Novell (which will also be used for the upcoming IMIS system). Most of the new standard software is designed to run under this graphical user interface (GUI) and only recently a new version called Windows NT was released which gives true multi-tasking facilities but lets all popular Windows-applications run as before. For statistical data the new Paradox for Windows is recommended, thus capitalizing on the existing knowledgebase at TCTD. As far as non-numerical data bases are concerned the IDRC MINISIS version H is recommended, a software which could be received for free in-house as PADIS is one of the two MINISIS Resource Centres for Africa. Even though the original distributed version will not yet run under Windows, it has been indicated that users will provide the necessary programme code for the proper linkage of MINISIS to Windows. The use of this software would greatly enhance the standardization within the house and the continent at least as far as non-numerical data processing is concerned.

As mentioned above, all ECA staff has followed basic micro-computer training. This includes the Disk Operating System (DOS) as well as word processing. Users of the regional transport data base system would have to be trained in the handling of the actual installed data base.

If the final discussion concerning the contents of the data base would recommend the creation of a tailored data base user interface it would be recommended to use standard data base

software for this task. Two powerful systems, both with its own advantages, could be recommended: dBASE IV and ORACLE. dBASE IV is a well introduced system with an easy programming language which is widely distributed in African countries. The programme package includes in its developer edition a compiler which could produce stand-alone programmes. This means that the system could be installed at machines which itself are not loaded with dBASE IV. If in a later stage it would be considered to implement parts or the full transport data base at national focal points this could be an advantage. In addition it would be easier to maintain the system as there is already a knowledge base of dBASE programming within ECA. ORACLE on the other side is based on SQL (Structured Query Language), a concept well introduced in computer sites in Europe and the Americas where most of the valuable existing data bases are located. It should also be mentioned that most of the Administration's data bases will be based on ORACLE within the framework of IMIS. If the decision would opt for such a tailored data base user interface the appropriate software package would have to be purchased.

At this point it makes no sense to give details on the model numbers and cost for the equipment. The changes in micro-computing are so fast that today's products are no longer produced because they have been replaced by newer and better machinery and prices might be on a free fall. (As an example: the new micro-chip 80486DX at 20 Mhz has been introduced in early 1992 and its cost, when installed into a micro-computer, was around US\$ 5,000 at the time. Now a new 80846DX at 66 Mhz machine is offered at prices below US\$ 3,000.) The selection of actual equipment and software should be done at purchasing time. At this moment it should only be mentioned that the proposed upgrades and new equipment could be guessed at ca. US\$ 50,000 at current prices if all options would be accepted. This does not include cost for the possible development of a tailored data base user interface, the wiring and manpower needed for installation of upgrades, spare parts and computer stationary, and training cost for TCTD staff, which probably could be carried out by ISS.

Chapter III

Recommendations for an appropriate infrastructure of the data base

The recommendations will cover the following areas:

- information collection;
- equipment;
- man power needed; and
- information distribution.

Information collection

Information collection is the most crucial part for the development of a regional transport data base: as the old saying in computer science goes "garbage in, garbage out". Only if relevant, timely and accurate data are available, the data base can fulfil its function for development planning in the African region properly. In this context it has to be pointed out that up to now one major part of transport information has not yet been taken care of: non-numerical information.

The term "non-numerical information" describes all kind of data which are not statistical data, up to now the major source for analysis in TCTD. In the framework of the emerging regional co-operation and integration in the African region information on laws, rules and regulations governing transport in African countries are of equal importance for proper planning and implementation of transport related projects. Therefore greater attention has to be focused on such information, which definitely should constitute a major part of the regional transport data base.

It is recommended that the basic source of information should be on the national level. This means that national focal points for national data collection have to be established which exchange their data on a regular basis with ECA. Preferable these national focal points should have access to computer equipment in order to transfer the information straight to ECA's data base. Necessary software for data entry and correc-

tion has to be bought or developed and installed for all participating focal points. The equipment at the national level should at least be comprised of a 80486 micro-computer, a 300 MB hard disk, a colour screen, a CD-ROM reader, a 150 MB Bernoulli box, a scanner, and a laser printer. Using this equipment would allow adequate data collection for numerical and non-numerical data. Numerical data could be typed into a data collection form and non-numerical could be transferred using optical character recognition (OCR) techniques into readable text for further use in the data base.

In many African countries development information systems already exist and more are supposed to be established in the near future. Unfortunately these systems are mainly sectoral oriented: bibliographical systems are linked to universities and statistical systems, if existing, to the respective central statistical authorities. These two sources are usually not linked to each other so that each effort in acquiring information has to be directed towards different systems or institutions.

It would be ideal to combine the information of different national sources or systems into the hands of a single focal point at national level. One possibility would be the use of institutions which exchange already data with ECA on a regular basis, such as PADIS's National Participating Centres. This would eliminate the necessity to establish, equip and train for all sectoral data needs sectoral information centres, thus reducing cost and the use of valuable manpower. It is recommended that TCTD discusses this possibility with PADIS in close co-operation with ECA's Statistics Division. It might be necessary to provide African government with some seed money in order to establish the necessary infrastructure. This money could either be provided from the envelop of United Nations Development Programme (UNDP) Indicative Planning Figures (IPFs) or by bilateral sources which could be approached by ECA, World Bank and other UN agencies.

As has been proven with other data collection efforts in the African region, the need of face-to-face contact will not be eliminated even if such a system would have been established. TCTD's budget has to foresee means for data collection missions into ECA member States even in the future. This is particularly true for special data needs as they may arise from *ad hoc* request in the framework of humanitarian or emergency measures handled by ECA. The budget should allow for at least 10 mission per annum in order to assure the quality and timeliness of data for the transport data base.

The already mentioned co-operation and integration on regional and sub-regional level will greatly enhance the opportunities to use sub-regional institutions like ECOWAS, PTA, etc. for data collection. These institutions should be encouraged to collect sub-regional data and give ECA access to their collection.

A further source of data on African transport should also be considered: Universities and research institutions outside the continent. Reports and research papers on Africa are often produced in such institutions but never find their way back to the African continent. Today's facilities using electronic mail and other telecommunication connections allow TCTD to tap these source from its staff member's desk. The use of academic oriented networks like Bitnet could greatly enhance TCTD's knowledgebase and give valuable information for the transport data base. This could either be implemented by connecting a simple micro-computer to a modem and a direct telephone line or in the overall framework of the implementation of IMIS in the near future.

As a last group of information sources, both UN and other international organizations and regional groupings should be mentioned. In the "Directory of United Nations Databases and Information Services", Fourth Edition, 1990, compiled by the Advisory Committee for the Co-ordination of Information Systems the following UN bodies are mentioned as sources for data bases on transport : ECE, ECLAC, ESCWA, ESCAP, WHO, IAEA, UN Headquarters, UNCHS, FAO, and ICAO. These organizations maintain information services and data bases (see Annex 1 and Annex 2) and could be used for data exchange on a global level in particular as far as global transport is concerned. Regional groupings like the European Community (EC) or the Organization for Economic Co-operation and Development (OECD) could be used at least in order to verify primary data available in Africa.

Man power needed for the transport data base

The maintenance of a data base, particularly if the scope is so wide as is the case for a transport data base, is a full-time job. Professional staff could contribute to the data base but in order to look after all the technical aspects involved it is recommended to establish new, permanent posts.

Thus it is recommended to create two posts for the data base management: one data base manager at P5 level and one senior

programmer/analyst at P4 level. This personnel could handle the introduction of TCTD staff into the use of the system as well as carry out all data base management tasks and preparation of publication (see below). Both staff should have a sound background in micro-computing and networking in order to be able to update and - if necessary - extend the system.

Information Distribution

Four layers of distribution of the regional transport data base are anticipated: within TCTD, within ECA, within the African region and the global distribution. The distribution within TCTD is established by a LAN, based on a data base server, maintained by a data base manager and a senior programmer/analyst. Each staff member of TCTD will have thus access to all relevant data in the system using his or hers micro-computer. Distribution to interested users within ECA will be established either by downloading of data from the data base to diskettes or, once the IMIS backbone network is installed, by direct search in the data base. This later option should be finalized some times in late 1994. In case that a working system would be established before that time, the data base manager could serve as a dispatcher of requested information.

More advanced national focal points in African member States could have access to the data base either on-line by dialling in through a modem or by means of using a bulletin board system. This later option is in so far more recommended as telecommunication costs in Africa are still very high and on-line searches of data bases could quite take some time. In case that the bulletin board option is installed, a distant user could post his or hers query requests in a mail box, the data base management would run the queries and post in return the results in the user's mail box. From their it could be automatically downloaded to the users site.

The same means could also be used to exchange information. Data files produced at the national level could be send directly to the ECA and entered to the data base. Thus costly data collection missions could be avoided.

Only recently a new medium for distribution of larger data bases has become available to a wider public as hardware prices have dropped dramatically: Compact Disk Read Only Memory (CD-ROM). Up to now the equipment for production of CD-ROMs has been prohibitive expensive: such equipment would cost US\$ 100,000 and above. Newer development in the field of

multi-media computing allows now to produce small number of copies with equipment of not more than US\$ 5,000. This write-once CD-ROM technology could be employed in order to distribute the entire regional transport data base to the national focal points. Regular updates containing all data received from all member States and institutions would enable the national focal points to answer *ad hoc* questions on the spot, thus giving decision makers and planners access to more up-to-date and comprehensive information on transport issues in Africa.

Unfortunately one will not find the necessary sophisticated equipment in all African member States. This requires the use of traditional means of information distribution: the production of printed publications. It is recommended to use at ECA desktop publishing software in order to produce master copies for traditional reproduction. TCTD should decide on the different type of printed publications based on the regional transport data base contents. Within ECA, procedures have been established to publish directly from data bases using standard data base software like dBASE IV for creating files which are immediately readable from the desktop publishing software. This will reduce the turnaround time for publication production to a minimum. The goal of timely and up-to-date information distribution could thus be easily reached.

Conclusion

In the light of the actual status at ECA's TCTD concerning information collection and processing, a micro-computer based LAN system seems to be the most adequate way of providing ECA and its member States with necessary data on transport. National focal points will provide primary information to the system, enhanced by information received from international organizations outside the African region as well as analysis executed at TCTD.

The distribution of the data base information will be carried out by direct networking, and by publication of CD-ROMs and printed material.

Annex 1

Information Services

Information service name: Aircraft Accident/Incident Reporting System (ADREP)

Organization: ICAO. Air Navigation Bureau. Accident Investigation and Prevention Section

Service established: 1977

Service scope: Accidents; air transport; aircraft

Coverage: Worldwide; national

Indexing/Classification tools: In-house (keywords)

Availability: UN system organizations, external users with restrictions

Printed products: Accident/incident reporting (ADREP) - annual statistics (English, French and Spanish editions); ADREP summary on occurrences reported to ICAO (English, French and Spanish editions)

Contact: Mr. O. Fritsch
Chief, Accident Investigation and
Prevention Section
Air Transport Bureau
ICAO
1000 Sherbrooke Street West
MONTREAL, Quebec
Canada H3A 2R2

Telephone: + 1 514/285 8160

Telefax: + 1 514/288 4772

Cable: ICAO MONTREAL

Telex: 05 24513

Information service name: CEPAL/ILPES Library

Organization: ECLAC. Office of the Executive Secretary

Service established: 1948

Service scope: Economic development; economic integration; economic planning; environment; industry; international trade; natural resources; social development; social planning; technology transfer; transnational corporations; transport

Coverage: Worldwide; regional (Latin America and the Caribbean)

Indexing/Classification tools: Macrothesaurus; UNBIS Thesaurus

Availability: UN system organizations, external users with restrictions

Printed products: Boletín mensual; CEPALINDEX; Índice de anuarios; Índice de revistas académicas recibidas; Índice de revistas que se reciben regularmente en biblioteca; Lista de siglas latinoamericanas; Bibliographies

Contact: Ms. Carmen Vera
Chief Librarian
Library
ECLAC
Casilla 179-D
SANTIAGO
Chile

Telephone: + 56 2/48 50 51

Telefax: + 56 2/48 02 52

Cable: UNATIONS SANTIAGO

Telex: 240077

Information service name: Civil Aviation Statistics Programme (CASP)

Organization: ICAO. Air Transport Bureau. Economics and Statistics Branch. Statistics Section

Service established: 1947

Service scope: Air transport; aircraft; airports; pilots; transport statistics

Coverage: Worldwide

Indexing/Classification tools: IATA Airport Codes; IATA City-Pair Codes; ICAO Aircraft Codes; ICAO Airline Codes; ICAO Country Codes; ICAO Lexicon; ICAO Route Facility Codes

Availability: UN system organizations; external users

Printed products: Digest of statistics (8 series, quadrilingual editions); ICAO statistical yearbook (English, French, Spanish and Russian editions); Manual on the ICAO statistics programme (English, French, Spanish and Russian editions)

Contact: Mr. D.C. Singh
Chief, Statistics Section
Air Transport Bureau
ICAO
1000 Sherbrooke Street West
MONTREAL, Quebec
Canada H3A 2R2

Telephone: + 1 514/285 8219

Telefax: + 1 514/288 4772

Cable: ICAO MONTREAL

Telex: 05 24513

Information service name: Commodity, Supplier and Consultant Registration System

Organization: ICAO. Technical Assistance Bureau. Field Services Branch. Procurement Section

Service established: 1987

Service scope: Air transport; aircraft; airports; civil engineering; construction materials; consultants; suppliers

Coverage: Worldwide

Availability: UN system organizations; external users with restrictions

Printed products: Computer listing by supplier and equipment type

Contact: Mr. V. Dorofeyev
Procurement Officer
Technical Assistance Bureau
ICAO
1000 Sherbrooke Street West
MONTREAL, Quebec
Canada H3A 2R2

Telephone: + 1 514/285 8082

Telefax: + 1 514/288 4772

Cable: ICAO MONTREAL

Telex: 05 24513

Information service name: Directory of Services for Technical Assistance in Shipping and Multimodal Transport Ports to Developing Countries (SHIPASSIST)

Organization: UNCTAD. Shipping Division

Service established: 1980

Service scope: Maritime law; ports; sea transport; shipowners; technical cooperation; training assistance

Coverage: Worldwide

Availability: UN system organizations; external users

Printed products: Directory of services for technical assistance in shipping and multimodal transport ports to developing countries

Contact: Director, Shipping Division
UNCTAD
Palais des Nations
GENEVA 1211 10
Switzerland

Telephone: + 41 22/734 60 11

Telefax: + 41 22/733 65 42

Cable: UNATIONS GENEVA

Telex: 289696

Information service name: Documents Section [CD]

Organization: IMO. Conference Division

Service established: 1960

Service scope: Marine environment; maritime law; offshore installations; radio; sea transport

Coverage: Worldwide

Indexing/Classification tools: IMO Index; In-house (keywords)

Availability: UN system organizations; external users

Printed products: Index list of documents issued for each session of committees and sub-committees

Contact: Mr. F.J.P. Frere van Tongerlooy
Head, Documents Section
IMO
4 Albert Embankment
LONDON SE1 7SR
United Kingdom

Telephone: + 44 71/735 7611; 587 3138

Telefax: + 44 71/587 3210

Cable: INTERMAR LONDON

Telex: 23588 imoldn g

Information service name: Economic and Social Commission for Western Asia. Library and Documentation Section

Organization: ESCWA. Division of Administration

Service established: 1962

Service scope: Agriculture; economic development; economics; human settlements; industry; natural resources; population; social conditions; social planning; transport

Coverage: Regional (Western Asia)

Indexing/Classification tools: UNBIS Thesaurus

Availability: UN system organizations, external users

Printed products: ESCWA cumulative list (E/ECWA/LIB/Cum.Doc/1); Index to ESCWA resolutions; List of weekly acquisitions (documents) and monthly acquisitions (periodicals and books); List of serials at ESCWA library (E/ECWA/LIB/Cum.S/1); Major ESCWA documents; specialized bibliographies

Contact: Ms. Hala F. Sayegh
Library and Documentation Section
Division of Administration
ESCWA
PO Box 27
BAGHDAD
Iraq

Telephone: + 964 1/556 4282

Telefax: + 964 1/556 9437

Cable: UNATIONS ESCWA

Telex: 213303 unecwa ik; 213468 unecwa ik

Information service name: Evaluation of Hazardous Substances Carried by Ships (EHS)

Organization: IMO. Marine Environment Division

Service established: 1972

Service scope: Dangerous substances; sea transport

Coverage: Worldwide

Indexing/Classification tools: Chemical Abstracts Registry Number

Availability: UN system organizations, external users

Printed products: Annual circulars to Member States, chemical industries and shipping associations

Contact: Dr. Manfred Nauke
Marine Science Section
Office for the London Dumping Convention
IMO
4 Albert Embankment
LONDON SE1 7SR
United Kingdom

Telephone: + 44 71/735 7611

Telefax: + 44 71/587 3210

Cable: INTERMAR LONDON

Telex: 23588 imoldn g

Information service name: Forest Logging and Transport Equipment

Organization: FAO. Forestry Department. Forest Industries Division. Forest Logging and Transport Branch

Service established: 1984

Service scope: Forestry; logging; road construction; transport equipment

Coverage: Worldwide

Availability: UN system organizations; external users

Contact: Mr. R. Heinrich
Chief, Forest Logging and Transport Branch
Forestry Department
FAO
Via delle Terme di Caracalla
ROME 00100
Italy

Telephone: + 39 6/57971

Telefax: + 39 6/679 9563

Cable: FOODAGRI ROME

Telex: 610181 fao i

Information service name: Health Information Support

Organization: WHO. WHO Regional Office for the Western Pacific

Service established: 1951

Service scope: Development aid; economic development; education; health; health personnel; industry; natural resources; population; science and technology; social conditions; transport

Coverage: Regional

Indexing/Classification tools: Classification for Veterinary and Medical Libraries (C. Barnard); Medical Subject Headings of the US National Library of Medicine (MESH)

Availability: UN system organizations; external users

Printed products: Catalogue of WHO/WPRO library; Directory of selected medical and health-related libraries in the Western Pacific region of WHO, 1981; Directory of current medical and health-related periodicals published in the Western Pacific region of WHO, 1983; Catalogue of the library book collection (as of December 1982); Recent acquisitions of the WHO/WPRO library

Contact: Ms. R.C. Agoncillo
Librarian
WPRO Library
PO Box 2932
United Nations cor Taft Avenues
MANILA
Philippines

Telephone: + 63 2/521 8421

Telefax: + 63 2/521 1036

Cable: UNISANTE MANILA

Telex: 27652 who ph; 40365 who pm

Information service name: Inventory of Transport Economics and Technology Studies and Reports within the UN System

Organization: UN. Department of International Economic and Social Affairs. Office for Development Research and Policy Analysis

Service scope: Air transport; inland transport; inland waterways; multimodal transport; railway transport; road transport; sea transport; transport

Coverage: Worldwide

Indexing/Classification tools: Macrothesaurus

Availability: UN system organizations, external users

Printed products: Catalogue with abstracts of studies in the field of transport; Transport newsletter

Contact: Mr. O. Gueye
Economic Affairs Officer in Charge of Transport Matters
DIESA
United Nations
United Nations Plaza

NEW YORK, NY 10017
United States

Telephone: + 1 212/963 1234

Telefax: + 1 212/963 4879

Cable: UNATIONS NEWYORK

Telex: 232422

Information service name: Library [ADB]

Organization: ICAO. Bureau of Administration and Services

Service established: 1946

Service scope: Air transport; international law; meteorology; telecommunications; terminology

Coverage: Worldwide

Availability: UN system organizations; external users

Printed products: ICAO library information: recent accessions and selected articles; ICAO library list of serials; Index of ICAO publications

Contact: Librarian
Library
ICAO
1000 Sherbrooke Street West
MONTREAL, Quebec
Canada H3A 2R2

Telephone: + 1 514/285 8219

Telefax: + 1 514/288 4772

Cable: ICAO MONTREAL

Telex: 05 24513

Information service name: Library [Administrative Division]

Organization: IMO. Administrative Division. Office of General Services

Service established: 1959

Service scope: Cargo; maritime law; maritime questions; pollution control; ports; sea transport; shipbuilding; ships; vocational training

Coverage: Worldwide

Indexing/Classification tools: In-house (subject headings list)

Availability: UN system organizations, external users

Printed products: IMO index (3rd edition); IMO library list of acquisitions; IMO library list of periodicals; List of periodicals in the maritime field

Contact: Ms. M. Harvey
Librarian
Office of General Services
Administrative Division

IMO
4 Albert Embankment
LONDON SE1 7SR
United Kingdom

Telephone: + 44 71/735 7611

Telefax: + 44 71/587 3210

Cable: INTERMAR LONDON

Telex: 23588 imoldn g

Information service name: Library [Division of Administration]

Organization: ESCAP. Division of Administration

Service established: 1949

Service scope: Agricultural development; development planning; economic development; energy; environment; food; industrial development; international trade; labour; natural resources; social development; social services; transport

Coverage: Regional (Asia and the Pacific)

Indexing/Classification tools: EBIS List of Descriptors; UNBIS Thesaurus; The World Bank Thesaurus

Availability: UN system organizations; external users

Printed products: Asian bibliography; EBIS register of serials; ESCAP delegates handbook and secretariat supplement, 1982 (2 vols., ESCAP/LIB/Manual/2/Suppl.Rev.1); ESCAP documents and publications; Index to resolutions of the Economic and Social Commission for Asia and the Pacific, 1947-1978. Part I and III : numerical list and subject index. Part II : compendium of resolutions

Contact: Chief, ESCAP Library
United Nations Building
Rajadamnern Avenue
BANGKOK 10200
Thailand

Telephone: + 66 2/282 9161

Telefax: + 66 2/282 9602

Cable: ESCAP BANGKOK

Telex: 82392 escap th; 82315 escap th

Information service name: Library [World Maritime University]

Organization: IMO. World Maritime University

Service established: 1985

Service scope: Engineering; international law; international trade; law of the sea; maritime law; maritime questions; merchant marine; sea transport

Coverage: Worldwide

Indexing/Classification tools: Library of Congress Subject Headings; Library of Congress Classification Scheme

Availability: UN system organizations, external users with restrictions

Printed products: Current contents of selected journals; WMU library accessions list

Contact: Librarian
Library Department
World Maritime University
PO Box 500S201-24
Citadellsvagen 29
MALMO 211 20
Sweden

Telephone: + 46 40/70050

Telefax: + 46 40/128442

Cable: UNIVMAR MALMO

Telex: 8305018 wmu

Information service name: Reference Unit [DTCD/NRED]

Organization: UN. Department of Technical Co-operation for Development. Natural Resources and Energy Division

Service established: 1959

Service scope: Energy; mapping; mineral resources; natural resources; public works; remote sensing; transport; water resources

Coverage: Worldwide

Availability: UN system organizations

Contact: Mr. K.S. Natarajan
Library Assistant
NRED/TCDC
United Nations
United Nations Plaza
Room DC1-713
NEW YORK, NY 10017
United States

Telephone: + 1 212/963 1234

Telefax: + 1 212/963 4879

Cable: UNATIONS NEWYORK

Telex: 232422

Information service name: TACD Library

Organization: ESCAP. Transport and Communications Division

Service established: 1989

Service scope: Air transport; dredging; freight forwarding; inland waterways; manpower planning; motorways; multimodal transport; ports; postal services; railways; sea transport; telecommunications; transport containers

Coverage: Regional (Asia and the Pacific)

Indexing/Classification tools: EBIS List of Descriptors

Availability: UN system organizations, external users

Printed products: List of publications of transport and communications division

Contact: Mr. D.L. Turner
Chief, Transport and Communications Division
ESCAP
United Nations Building
Rajadamnern Avenue
BANGKOK 10200
Thailand

Telephone: + 66 2/282 9161

Telefax: + 66 2/282 9602

Cable: ESCAP BANGKOK

Telex: 82392 escap th; 82315 escap th

Information service name: TRAINMAR Programme

Organization: UNCTAD. Shipping Division

Service established: 1980

Service scope: Maritime law; multimodal transport; ports; sea transport; training assistance

Coverage: Worldwide

Availability: UN system organizations, external users

Printed products: TRAINMAR bulletin

Contact: Director, Shipping Division
UNCTAD
Palais des Nations
GENEVA 1211 10
Switzerland

Telephone: + 41 22/734 60 11

Telefax: + 41 22/733 65 42

Cable: UNATIONS GENEVA

Telex: 289696

Information service name: UNCHS (Habitat) Information Systems

Organization: UNCHS. Information, Audio-visual and Documentation Division. Information Systems and Documentation Section

Service established: 1984

Service scope: Construction materials; construction techniques; habitat; housing; human settlements; land use; squatters; transport

Coverage: Worldwide

Indexing/Classification tools: UNCHS (Habitat) Trilingual Thesaurus in the Field of Human Settlements

Availability: UN system organizations, external users

Printed products: Bibliography on community participation (2 vols.); Bibliography on local building materials, plant and equipment (English, French, and Spanish editions); HABIRES - on-going research in the field of human settlements; Habitat awareness bulletin; Habitat news index; UNCHS (Habitat) bibliography (4 vols.)

Contact: Mr. G. Rao
Chief, Information, Audiovisual and Documentation Division
UNCHS (Habitat)
PO Box 30030
NAIROBI
Kenya

Telephone: + 254 2/33 39 30

Telefax: + 254 2/52 07 24

Cable: UNHABITAT NAIROBI

Telex: 22996 unhabke

Information service name: UNCHS Documentation Service

Organization: UNCHS. Information, Audio-visual and Documentation Division

Service established: 1979

Service scope: Construction industry; construction techniques; habitat; housing; human settlements; land use; rural development; squatters; training; transport

Coverage: Worldwide

Indexing/Classification tools: UNCHS (Habitat) Trilingual Thesaurus in the Field of Human Settlements

Availability: UN system organizations, external users

Printed products: Bibliographic notes; Library bulletin

Contact: Ms. G. Wanjohi
Librarian
Documentation Service
UNCHS (Habitat)
PO Box 30030
NAIROBI
Kenya

Telephone: + 254 2/33 39 30; 52 06 00

Telefax: + 254 2/52 07 24

Cable: UNHABITAT NAIROBI

Telex: 22996 unhabke

Information service name: United Nations Library at Geneva

Organization: UN. United Nations Office at Geneva. Conference Services Division

Service established: 1919

Service scope: Agriculture; armament; communication; comparative law; economic conditions; economic planning; economics; education; energy; environment; food; health; human rights; industrial production; international law; international relations; labour; library science; minority groups; peace; political science; population; refugees; social problems; technology; trade; transport; UN system

Coverage: Worldwide

Indexing/Classification tools: Library of Congress Subject Headings; UNBIS Thesaurus; Universal Decimal Classification (UDC)

Availability: UN system organizations; external users

Printed products: Catalogue of periodicals, annuals and special series currently received; Guide to the League of Nations archives, 1978; Monthly bibliography, Part I and Part II; Proceedings of the symposium: League of Nations in retrospect; The UNOG library: services and collections; Weekly bibliography

Contact: Mr. P. Pelou
Chief Librarian
UNOG Library
United Nations Office at Geneva
Palais des Nations
GENEVA 1211 10
Switzerland

Telephone: + 41 22/734 60 11

Telefax: + 41 22/733 08 00

Cable: UNATIONS GENEVA

Telex: 289696

Annex 2

Data Bases

Database Name: Aircraft Accident/Incident Reporting Master File (ADREP)

Organization: ICAO. Air Navigation Bureau. Accident Investigation and Prevention Section

Managing Information System: Aircraft Accident/Incident Reporting System

Database established: 1976

Database type: Full text; numeric

Subject scope: Accidents; air transport

Coverage: Worldwide

Timespan: 1970 - present

Total number of items: 15,000

Update: Weekly

Languages: English; French; Russian; Spanish

Indexing/Classification tools: Thesaurus of Keywords in Accident Reports

Computer: Motorola minicomputer backed up by an IBM mainframe in Ottawa, Canada

Software: Oracle

Availability: UN system organizations; external users

Printed products: Accident/incident reporting manual and related forms; Aircraft accident statistics ICAO/ADREP reports summary

Distribution media: Printout

Contact: Mr. R. Menzel
Accident and Prevention Section
Air Transport Bureau
ICAO
1000 Sherbrooke Street West
MONTREAL, Quebec
Canada H3A 2R2

Telephone: + 1 514/285 6727

Telefax: + 1 514/288 4772

Cable: ICAO MONTREAL

Telex: 05 24513

Database Name: Airline Fares and Rates Data Base

Organization: ICAO. Air Transport Bureau. Economics and Statistics Branch. Economic Analysis Section

Database established: 1975

Database type: Numeric

Subject scope: Air transport; tariffs

Timespan: 1975 - 1989

Total number of items: 123,000

Update: Annually

Languages: English

Computer: Bull DPS 7000/30

Availability: Agency staff

Printed products: Survey of international air transport fares and rates

Contact: Mr. A.A. Costaguta
Chief, Economic Analysis Section
ICAO
1000 Sherbrooke Street West
MONTREAL, Quebec
Canada H3A 2R2

Telephone: + 1 514/285 8219

Telefax: + 1 514/288 4772

Cable: ICAO MONTREAL

Telex: 05 24513

Database Name: Airline Revenue/Cost Analysis Data Base

Organization: ICAO. Air Transport Bureau. Economics and Statistics Branch. Economic Analysis Section

Database type: Numeric

Subject scope: Air transport; tariffs

Timespan: 1983 - 1987

Update: Annually

Languages: English

Computer: Bull DPS 7000/30

Software: In-house

Availability: Agency staff

Printed products: Regional differences in fares, rates and costs for international air transport

Contact: Mr. A.A. Costaguta
Chief, Economic Analysis Section
ICAO
1000 Sherbrooke Street West
MONTREAL, Quebec
Canada H3A 2R2

Telephone: + 1 514/282 8219

Telefax: + 1 514/288 4772

Cable: ICAO MONTREAL

Telex: 05 24513

Database Name: Airport and Route Facilities (AF)

Organization: ICAO. Air Transport Bureau. Economics and Statistics Branch. Statistics Section

Database established: 1985

Database type: Numeric

Subject scope: Air transport; transport statistics

Coverage: Worldwide; national

Timespan: 1985 - present

Total number of items: 1,200

Update: Continuously

Languages: English; French; Russian; Spanish

Indexing/Classification tools: IATA Airport Codes; ICAO Country Codes; ICAO Lexicon; ICAO Route Facility Codes

Computer: Bull DPS 7000/30

Software: In-house

Availability: UN system organizations, external users

Printed products: Digest of statistics - airport and route facilities (Series AF)

Distribution media: Diskette (planned), magnetic tape

Contact: Mr. D.C. Singh
Chief, Statistics Section
Air Transport Bureau
ICAO
1000 Sherbrooke Street West
MONTREAL, Quebec
Canada H3A 2R2

Telephone: + 1 514/285 8219

Telefax: + 1 514/288 4772

Cable: ICAO MONTREAL

Telex: 05 24513

Database Name: Airport Traffic (AT)

Organization: ICAO. Air Transport Bureau. Economics and Statistics Branch. Statistics Section

Database established: 1970

Database type: Numeric

Subject scope: Air traffic; transport statistics

Coverage: Worldwide; national

Timespan: 1970 - present

Total number of items: 600,000

Update: Continuously

Languages: English; French; Russian; Spanish

Indexing/Classification tools: IATA Airport Codes; ICAO Lexicon

Computer: Bull DPS 7000/30

Software: In-house

Availability: UN system organizations, external users

Printed products: Digest of statistics - airport traffic (Series AT)

Distribution media: Magnetic tape

Contact: Mr. D.C. Singh
Chief, Statistics Section
Air Transport Bureau
ICAO
1000 Sherbrooke Street West
MONTREAL, Quebec
Canada H3A 2R2

Telephone: + 1 514/285 8219

Telefax: + 1 514/288 4772

Cable: ICAO MONTREAL

Telex: 05 24513

Database Name: Asia-Pacific in Figures

Organization: ESCAP. Statistics Division

Database type: Numeric

Subject scope: Agricultural statistics; demographic statistics; industrial statistics; trade statistics; transport statistics

Coverage: Regional

Timespan: Last 6 years

Total number of items: 4,242

Update: Annually

Languages: English

Availability: UN system organizations, external users

Printed products: Asia-Pacific in figures

Contact: Chief, Statistics Division
ESCAP
United Nations Building
Rajadamnern Avenue
BANGKOK 10200
Thailand

Telephone: + 66 2/282 9161

Telefax: + 66 2/282 9600

Cable: ESCAP BANGKOK

Telex: 82392 escap th; 82315 escap th

Database Name: BIBLOS

Organization: ECLAC. Office of the Executive Secretary

Database established: 1978

Database type: Bibliographic

Subject scope: Economic development; economic planning; environment; industry; international trade; natural resources; social development; social planning; transnational corporations; transport

Coverage: Worldwide; regional (Latin America and the Caribbean)

Timespan: 1978 - present

Total number of items: 32,289

Update: Monthly

Languages: English; French; Portuguese; Spanish

Indexing/Classification tools: Macrothesaurus

Computer: IBM mainframe

Operations system: CMS

Software: CDS/ISIS

Availability: UN system organizations; external users with restrictions

Printed products: Avance de CEPALINDEX; Boletín mensual; CEPALINDEX; Special bibliographies

Distribution media: CD-ROM; COM

Contact: Ms. Carmen Vera
Chief Librarian
Library
ECLAC
Casilla 179-D
SANTIAGO
Chile

Telephone: + 56 2/48 50 51

Telefax: + 56 2/48 02 52

Cable: UNATIONS SANTIAGO

Telex: 240077

Database Name: Bilateral Air Transport Agreements Data Base

Organization: ICAO. Air Transport Bureau. Economics and Statistics Branch

Database type: Referral

Subject scope: Air transport; international agreements

Timespan: 1983 - present

Total number of items: 24,000

Update: Continuously

Languages: English

Computer: Bull DPS 7000/30

Software: In-house

Availability: UN system organizations; external users

Printed products: Digest of bilateral air transport agreements

Distribution media: Magnetic tape; online (planned); printout

Contact: Mr. J.R. Chesen
Chief, Economic Policy Section
Air Transport Bureau
ICAO
1000 Sherbrooke Street West
MONTREAL, Quebec
Canada H3A 2R2

Telephone: + 1 514/285 8219

Telefax: + 1 514/288 4772

Cable: ICAO MONTREAL

Telex: 05 24513

Database Name: Caribbean Information System for Economic and Social Planning Data Base

Organization: ECLAC. Subregional Headquarters for the Caribbean. Caribbean Documentation Centre

Database established: 1979

Database type: Bibliographic

Subject scope: Agricultural development; economic development; economic planning; education; energy; housing; industry; public finance; social development; social planning; technical cooperation; technology transfer; tourism; trade; transport

Coverage: Primarily Caribbean

Timespan: 1970 - present

Total number of items: 24,000

Update: Daily

Languages: Dutch; English; French; Spanish

Indexing/Classification tools: ECLAC abstracting manual; ECLAC indexing manual; Macrothesaurus; UNBIS Thesaurus

Computer: HP 3000/37

Operating system: MPE

Software: MINISIS

Availability: UN system organizations, external users

Printed products: CARISPLAN abstracts; Current awareness bulletin

Distribution media: Diskette; online; printout

Contact: Ms. Wilma Primus
Project Co-ordinator
Caribbean Documentation Centre
22 St. Vincent Street
PO Box 1113

PORT-OF-SPAIN
Trinidad & Tobago

Telephone: + 500 809/623 7308

Telefax: + 500 809/623 8485

Cable: ECLAC POS

Telex: 22394

Database Name: ESCAP Bibliographic Information System/Library (EBIS/LIB)

Organization: ESCAP. Division of Administration. ESCAP/ADM

Database established: 1981

Database type: Bibliographic

Subject scope: Agricultural development; development planning; economic development; energy; environment; food; industrial development; international trade; labour; natural resources; social development; social services; transport

Coverage: Regional (Asia and the Pacific)

Timespan: 1981 - present

Total number of items: 50,000 computer records

Update: Continuously

Languages: English

Indexing/Classification tools: EBIS List of Descriptors; UNBIS Thesaurus; The World Bank Thesaurus

Computer: NEC System 350

Software: IRS-4

Availability: UN system organizations, external users

Printed products: Asian bibliography; EBIS register of serials; ESCAP documents and publications; New titles received by the ESCAP library (internal)

Distribution media: Printout

Contact: Chief, ESCAP Library
United Nations Building
Rajadamnern Avenue
BANGKOK 10200
Thailand

Telephone: + 66 2/282 9161

Telefax: + 66 2/282 9602

Cable: ESCAP BANGKOK

Telex: 82392 escap th; 82315 escap th

Database Name: ESCAP Maritime Transport Database (EMTDB)

Organization: ESCAP. Transport and Communications Division

Database established: 1988

Database type: Numeric
Subject scope: Ports; sea transport; shipyards
Coverage: Regional (Asia and the Pacific)
Timespan: 1983 - 1989
Total number of items: 3,662 records - shipping companies
Update: Continuously
Languages: English
Computer: IBM PC/AT
Software: dBASE III; Turbo Pascal programs
Availability: UN system organizations, external users
Distribution media: Diskette; printout
Contact: Mr. E.M.J. Corten
Economic Affairs Officer
Transport and Communications Division
ESCAP
United Nations Building
Rajadamnern Avenue
BANGKOK 10200
Thailand
Telephone: + 66 2/282 9161
Telefax: + 66 2/282 9618
Cable: ESCAP BANGKOK
Telex: 82392 escap th; 82315 escap th

Database Name: Financial Data, Commercial Air Carriers
Organization: ICAO. Air Transport Bureau. Economics and Statistics Branch. Statistics Section
Database established: 1973
Database type: Numeric
Subject scope: Air transport; transport statistics
Coverage: Worldwide; national
Timespan: 1973 - present
Total number of items: 4,800
Update: Continuously
Languages: English; French; Russian; Spanish
Indexing/Classification tools: ICAO Airline Codes; ICAO Lexicon
Computer: Bull DPS 7000/30
Software: In-house
Availability: UN system organizations, external users
Printed products: Digest of statistics - financial data, commercial air carriers (Series F)
Distribution media: Diskette (planned); magnetic tape; online

Contact: Mr. D.C. Singh
Chief, Statistics Section
Air Transport Bureau
ICAO
1000 Sherbrooke Street West
MONTREAL, Quebec
Canada H3A 2R2

Telephone: + 1 514/285 8219

Telefax: + 1 514/288 4772

Cable: ICAO MONTREAL

Telex: 05 24513

Database Name: Fleet - Personnel, Commercial Air Carriers (FP)

Organization: ICAO. Air Transport Bureau. Economics and Statistics Branch. Statistics Section

Database established: 1975

Database type: Numeric

Subject scope: Air transport; transport statistics

Coverage: Worldwide; national

Timespan: 1975 - present

Total number of items: 35,000

Update: Continuously

Languages: English; French; Russian; Spanish

Indexing/Classification tools: ICAO Airline Codes; ICAO Lexicon

Computer: Bull DPS 7000/30

Software: In-house

Availability: UN system organizations, external users

Printed products: Digest of statistics - fleet-personnel, commercial air carriers (Series FP)

Distribution media: Diskette (planned); magnetic tape

Contact: Mr. D.C. Singh
Chief, Statistics Section
Air Transport Bureau
ICAO
1000 Sherbrooke Street West
MONTREAL, Quebec
Canada H3A 2R2

Telephone: + 1 514/285 8219

Telefax: + 1 514/288 4772

Cable: ICAO MONTREAL

Telex: 05 24513

Database Name: Forest Logging, Transport and Road Construction Equipment Data Base (FOLTRES)

Organization: FAO. Forestry Department. Forest Industries Division. Forest Logging and Transport Branch

Database established: 1984

Database type: Factual

Subject scope: Forestry; logging; road construction; transport equipment

Coverage: Worldwide

Timespan: 1975 - present

Total number of items: 420 records with 1,000 equipment items

Update: Continuously

Languages: English

Indexing/Classification tools: In-house (equipment groups)

Computer: IBM mainframe

Operating system: MVS

Software: Focus

Availability: UN system organizations, external users

Distribution media: Diskette; printout

Contact: Mr. R. Heinrich
Chief, Forest Logging and Transport Branch
Forestry Department
FAO
Via delle Terme di Caracalla
ROME 00100
Italy

Telephone: + 39 6/57971

Telefax: + 39 6/679 9563

Cable: FOODAGRI ROME

Telex: 610181 fao i

Database Name: IAEA Database on Competent Authority Package Approval Certificates (PACKTRAM)

Organization: IAEA. Department of Nuclear Energy and Safety

Database established: 1980

Database type: Full text

Subject scope: Radioactive materials; transport

Coverage: Worldwide

Total number of items: 2,000 records

Update: Continuously

Languages: English

Computer: IBM PS/2

Software: dBASE III Plus

Availability: UN system organizations, external users with restrictions

Printed products: Directory of national competent authorities' approval certificates for packages, shipments, special arrangements and special form radioactive material (IAEA-TECDOC-389)

Distribution media: Diskette; printout

Contact: Division of Nuclear Safety
IAEA
Vienna International Centre
Wagramerstrasse 5
PO Box 100
VIENNA 1400
Austria

Telephone: + 43 222/23600

Telefax: + 43 222/23 45 64

Cable: INATOM VIENNA

Telex: 1 12645

Database Name: IAEA Database on Research and Development in the Transport of Radioactive Materials (RESTRAM)

Organization: IAEA. Department of Nuclear Energy and Safety

Database type: Factual; full text

Subject scope: Radioactive materials; transport

Coverage: Worldwide

Languages: English

Computer: IBM PS/2

Software: dBASE III Plus

Software: MultiMate

Availability: UN system organizations, external users with restrictions

Printed products: Transport safety research abstracts

Contact: Ms. M.T.M. Brittinger
Technical Assistant
Division of Nuclear Safety
IAEA
Vienna International Centre
Wagramerstrasse 5
PO Box 100
VIENNA 1400
Austria

Telephone: + 43 222/2360 1261

Telefax: + 43 222/23 45 64

Cable: INATOM VIENNA

Telex: 1 12645

Database Name: IAEA Database on Shipments in the Transport of Radioactive Materials (SHIPTRAM)

Organization: IAEA. Department of Nuclear Energy and Safety

Database type: Factual; numeric

Subject scope: Radioactive materials; transport

Timespan: 1990 and 5 year intervals

Update: Every 5 years

Languages: English

Computer: IBM PS/2

Software: dBASE III Plus

Contact: Ms. M.T.M. Brittinger
Technical Assistant
Division of Nuclear Safety
IAEA
Vienna International Centre
Wagramerstrasse 5
PO Box 100
VIENNA 1400
Austria

Telephone: + 43 222/2360 1261

Telefax: + 43 222/23 45 64

Cable: INATOM VIENNA

Telex: 1 12645

Database Name: List of Commodities

Organization: ICAO. Technical Assistance Bureau. Field Services
Branch. Procurement Section

Database established: 1988

Database type: Full text; numeric

Subject scope: Air transport; commodities

Coverage: Worldwide

Total number of items: 3,500

Update: Continuously

Languages: English

Indexing/Classification tools: In-house (commodity name)

Computer: Bull DPS 7

Operating system: GCOS 7

Software: TDS/IDSII

Availability: Agency staff

Contact: Mr. V. Dorofeyev
Procurement Officer
Technical Assistance Bureau
ICAO
1000 Sherbrooke Street West
MONTREAL, Quebec
Canada H3A 2R2

Telephone: + 1 514/285 8082

Telefax: + 1 514/288 4772

Cable: ICAO MONTREAL

Telex: 05 24513

Database Name: List of Suppliers

Organization: ICAO. Technical Assistance Bureau. Field Services Branch. Procurement Section

Database established: 1988

Database type: Full text; numeric

Subject scope: Air transport; suppliers

Coverage: Worldwide

Total number of items: 5,000

Update: Continuously

Languages: English

Indexing/Classification tools: In-house (supplier name or number)

Computer: Bull DPS 7

Operating system: GCOS 7

Software: TDS/IDSII

Availability: Agency staff

Contact: Mr. V. Dorofeyev
Procurement Officer
Technical Assistance Bureau
ICAO
1000 Sherbrooke Street West
MONTREAL, Quebec
Canada H3A 2R2

Telephone: + 1 514/285 8082

Telefax: + 1 514/288 4772

Cable: ICAO MONTREAL

Telex: 05 24513

Database Name: Maritime Transport Statistics Data Base

Organization: UN. Department of International Economic and Social Affairs

Database established: 1969

Database type: Numeric

Subject scope: Sea transport; trade statistics

Coverage: Worldwide

Timespan: 1969 - present

Update: Annually

Languages: English

Computer: IBM mainframe
Operating system: MVS/XA
Software: In-house
Availability: UN system organizations, external users
Printed products: International sea-borne trade statistics yearbook
Distribution media: Magnetic tape; printout
Contact: Mr. Lawrence Harding
Chief, International Trade and Transport Statistics
Branch
Statistical Office
United Nations
United Nations Plaza
NEW YORK, NY 10017
United States
Telephone: + 1 212/963 1234
Telefax: + 1 212/963 4879
Cable: UNATIONS NEWYORK
Telex: 232422

Database Name: Monograph and Periodical Article Database (HSLIB)

Organization: UNCHS. Information, Audio-visual and Documentation Division

Database established: 1987

Database type: Bibliographic

Subject scope: Construction industry; construction techniques; habitat; housing; human settlements; land use; rural development; squatters; training; transport

Coverage: Worldwide

Timespan: 1975 - present

Total number of items: 2,000

Update: Six times a year

Languages: English

Indexing/Classification tools: UNCHS (Habitat) Trilingual Thesaurus in the Field of Human Settlements

Computer: Acer 910

Software: CDS/ISIS (Mini-micro version)

Availability: UN system organizations, external users with restrictions

Contact: Ms. G. Wanjohi
Librarian
Documentation Service
UNCHS (Habitat)
PO Box 30030

NAIROBI

Kenya

Telephone: + 254 2/33 39 30; 52 06 00

Telefax: + 254 2/52 07 24

Cable: UNHABITAT NAIROBI

Telex: 22996 unhabke

Database Name: On-flight Origin and Destination (OFOD)

Organization: ICAO. Air Transport Bureau. Economics and Statistics Branch. Statistics Section

Database established: 1977

Database type: Numeric

Subject scope: Air transport; transport statistics

Coverage: Worldwide; city-pairs

Timespan: 1977 - present

Total number of items: 90,000

Update: Continuously

Languages: English; French; Russian; Spanish

Indexing/Classification tools: IATA City-Pair Codes; ICAO Airline Codes; ICAO Lexicon

Computer: Bull DPS 7000/30

Software: In-house

Availability: UN system organizations, external users

Printed products: Digest of statistics - on-flight origin and destination (Series OFOD)

Distribution media: Diskette (planned); magnetic tape; online

Contact: Mr. D.C. Singh
Chief, Statistics Section
Air Transport Bureau
ICAO
1000 Sherbrooke Street West
MONTREAL, Quebec
Canada H3A 2R2

Telephone: + 1 514/285 8219

Telefax: + 1 514/288 4772

Cable: ICAO MONTREAL

Telex: 05 24513

Database Name: Regional Maritime Strategy Study

Organization: ESCAP. Transport and Communications Division

Database type: Numeric

Database type: referral

Subject scope: Ports; sea transport; trade

Coverage: Regional (Asia and the Pacific)

Timespan: 1969 - present

Languages: English

Computer: IBM PS/2

Operating system: MS/DOS

Software: Turbo Pascal programs

Availability: UN system organizations, external users with restrictions

Distribution media: Diskette; printout

Contact: Mr. E.M.J. Corten
Economic Affairs Officer
Transport and Communications Division
ESCAP
United Nations Building
Rajadamnern Avenue
BANGKOK 10200
Thailand

Telephone: + 66 2/282 9161

Telefax: + 66 2/282 9602

Cable: ESCAP BANGKOK

Telex: 82392 escap th; 82315 escap th

Database Name: Road Traffic Accidents for Europe (ACCIDENT)

Organization: ECE. Statistical Division

Database established: 1987

Database type: Numeric

Subject scope: Traffic accidents

Coverage: Regional (Eastern and Western Europe); national (Canada, USA, USSR)

Timespan: 1980; 1984 - present

Total number of items: 50,000

Update: Annually

Languages: English; French; Russian

Computer: IBM mainframe

Operating system: MVS

Software: In-house

Availability: UN system organizations, external users

Printed products: Statistics of road traffic accidents in Europe

Distribution media: Magnetic tape; printout

Contact: Mr. J. Peris
Statistical Division
ECE
Palais des Nations

GENEVA 1211 10
Switzerland

Telephone: + 41 22/734 60 11

Telefax: + 41 22/733 98 79

Cable: UNATIONS GENEVA

Telex: 289696

Database Name: Statistical Indicators for Asia and the Pacific

Organization: ESCAP. Statistics Division

Subject scope: Agricultural statistics; demographic statistics; industrial statistics; trade statistics; transport statistics

Coverage: Regional

Timespan: Last 2 years

Total number of items: 2,900 series

Update: Quarterly

Languages: English

Availability: UN system organizations, external users

Printed products: Statistical indicators for Asia and the Pacific

Contact: Chief, Statistics Division
ESCAP
United Nations Building
Rajadamnern Avenue
BANGKOK 10200
Thailand

Telephone: + 66 2/282 9161

Telefax: + 66 2/282 9600

Cable: ESCAP BANGKOK

Telex: 82392 escap th; 82315 escap th

Database Name: Statistical Yearbook for Asia and the Pacific

Organization: ESCAP. Statistics Division

Database type: Numeric

Subject scope: Agricultural statistics; demographic statistics; economic statistics; energy statistics; industrial statistics; national accounts; prices; social statistics; trade statistics; transport statistics

Coverage: Regional (Asia and the Pacific)

Timespan: Last 11 years

Total number of items: 15,800 series

Update: Annually

Languages: English; French

Availability: UN system organizations, external users

Printed products: Statistical yearbook for Asia and the Pacific

Contact: Chief, Statistics Division
ESCAP
United Nations Building
Rajadamnern Avenue
BANGKOK 10200
Thailand

Telephone: + 66 2/282 9161

Telefax: + 66 2/282 9600

Cable: ESCAP BANGKOK

Telex: 82392 escap th; 82315 escap th

Database Name: Supplies-Commodity Reference

Organization: ICAO. Technical Assistance Bureau. Field Services
Branch. Procurement Section

Database established: 1988

Database type: Referral

Subject scope: Air transport; commodities; suppliers

Coverage: Worldwide

Languages: English

Indexing/Classification tools: In-house (supplier name or commodity code)

Computer: Bull DPS 7

Operating system: GCOS 7

Software: TDS/IDSII

Availability: Agency staff

Contact: Mr. V. Dorofeyev
Procurement Officer
Technical Assistance Bureau
ICAO
1000 Sherbrooke Street West
MONTREAL, Quebec
Canada H3A 2R2

Telephone: + 1 514/285 8082

Telefax: + 1 514/288 4772

Cable: ICAO MONTREAL

Telex: 05 24513

Database Name: TISNET Bibliographic Information Sources (TISNET-BIS)

Organization: ESCAP. International Trade and Tourism Division

Database established: 1988

Database type: Bibliographic

Subject scope: Agriculture; banking; economic conditions; economic policy; industry; international monetary relations; trade; training; transport

Coverage: Worldwide

Timespan: 1980 - present

Total number of items: 2,000

Update: Continuously

Languages: English

Indexing/Classification tools: Customs Co-operation Council Nomenclature (CCCN); in-house (index of descriptors); Macrothesaurus; Standard International Trade Classification (SITC); Thesaurus of International Trade Terms

Computer: IBM PC/AT

Operating system: DOS

Software: CDS/ISIS (Mini-micro version)

Availability: UN system organizations; external users with restrictions

Printed products: Trade information sources data bank and its index

Distribution media: Diskette; printout

Contact: Mr. H. Fujimoto
Economic Affairs Officer
Trade Information Service
ESCAP
United Nations Building
Rajadamnern Avenue
BANGKOK 10200
Thailand

Telephone: + 66 2/282 9161; 282 9171; 282 9181

Telefax: + 66 2/282 9602

Cable: ESCAP BANGKOK

Telex: 82392 escap th; 82315 escap th

Database Name: TISNET Dissemination - Institutional Sources (TISNET-DIS)

Organization: ESCAP. International Trade and Tourism Division

Database established: 1988

Database type: Referral

Subject scope: Agriculture; banking; industry; information services; management; trade; training; transport

Coverage: Worldwide

Timespan: 1980 - present

Total number of items: 1,000

Update: Continuously

Languages: English

Indexing/Classification tools: In-house

Computer: IBM PC/AT

Operating system: DOS

Software: CDS/ISIS (Mini-micro version)

Availability: UN system organizations; external users with restrictions

Printed products: Trade information sources directory

Distribution media: Diskette; printout

Contact: Mr. H. Fujimoto
Economic Affairs Officer
Trade Information Service
ESCAP
United Nations Building
Rajadamnern Avenue
BANGKOK 10200
Thailand

Telephone: + 66 2/282 9161; 282 9171; 282 9181

Telefax: + 66 2/282 9602

Cable: ESCAP BANGKOK

Telex: 82392 escap th; 82315 escap th

Database Name: Traffic by Flight Stage (TF)

Organization: ICAO. Air Transport Bureau. Economics and Statistics Branch. Statistics Section

Database established: 1972

Database type: Numeric

Subject scope: Air traffic; transport statistics

Coverage: Worldwide; station-pairs

Timespan: 1972 - present

Total number of items: 595,000

Update: Continuously

Languages: English; French; Russian; Spanish

Indexing/Classification tools: IATA City-Pair Codes; ICAO Airline Codes; ICAO Lexicon

Computer: Bull DPS 7000/30

Software: In-house

Availability: UN system organizations; external users

Printed products: Digest of statistics - traffic by flight stage (Series TF)

Distribution media: Diskette (planned); magnetic tape

Contact: Mr. D.C. Singh
Chief, Statistics Section
Air Transport Bureau
ICAO

1000 Sherbrooke Street West
MONTREAL, Quebec
Canada H3A 2R2

Telephone: + 1 514/285 8219

Telefax: + 1 514/288 4772

Cable: ICAO MONTREAL

Telex: 05 24513

Database Name: Traffic, Commercial Air Carriers

Organization: ICAO. Air Transport Bureau. Economics and Statistics Branch. Statistics Section

Database established: 1968

Database type: Numeric

Subject scope: Air traffic; air transport; transport statistics

Coverage: Worldwide

Timespan: 1968 - present

Total number of items: 400,000

Update: Continuously

Languages: English; French; Russian; Spanish

Indexing/Classification tools: ICAO Airline Codes; ICAO Lexicon

Computer: Bull DPS 7000/30

Software: In-house

Availability: UN system organizations; external users

Printed products: Digest of statistics - traffic, commercial air carriers (Series T)

Distribution media: Diskette (planned); magnetic tape

Contact: Mr. D.C. Singh
Chief, Statistics Section
Air Transport Bureau
ICAO
1000 Sherbrooke Street West
MONTREAL, Quebec
Canada H3A 2R2

Telephone: + 1 514/285 8219

Telefax: + 1 514/288 4772

Cable: ICAO MONTREAL

Telex: 05 24513

Database Name: Translation Services (Database)

Organization: IMO. Conference Division

Database established: 1987

Database type: Terminological

Subject scope: Maritime questions; sea transport; terminology

Coverage: Worldwide
Timespan: 1987 - present
Total number of items: 20,000
Update: Continuously
Languages: English; French; Spanish
Indexing/Classification tools: In-house
Computer: HP 3000/52
Operating system: MPE V
Software: MINISIS
Availability: Agency staff
Printed products: Specialized glossaries
Contact: Mr. J.-P. Saulnier
Head, French Translation Section Manager
Conference Division Computer System
IMO
4 Albert Embankment
LONDON SE1 7SR
United Kingdom
Telephone: + 44 71/587 3202
Telefax: + 44 71/587 3210
Cable: INTERMAR LONDON
Telex: 23588 imoldn g

Database Name: Transport Statistics for Europe (TRANSPRT)
Organization: ECE. Statistical Division
Database established: 1989
Database type: Numeric
Subject scope: Transport statistics
Coverage: Regional (Eastern and Western Europe); national (Canada, USA, USSR)
Timespan: 1980; 1985 - present
Total number of items: 95,000
Update: Annually
Languages: English; French; Russian
Computer: IBM mainframe
Operating system: MVS
Software: In-house
Availability: UN system organizations, external users
Printed products: Annual bulletin of transport statistics for Europe
Distribution media: Magnetic tape; printout
Contact: Mr. J. Peris
Statistical Division
ECE

Palais des Nations
GENEVA 1211 10
Switzerland

Telephone: + 41 22/734 60 11

Telefax: + 41 22/733 98 79

Cable: UNATIONS GENEVA

Telex: 289696

Database Name: UNCHS Information Systems (Database) (HABI-DOC)

Organization: UNCHS: Information, Audio-visual and Documentation Division. Information Systems and Documentation Section

Database established: 1984

Database type: Bibliographic; referral

Subject scope: Community development; construction materials; habitat; human settlements; land; low cost housing; squatters; transport; urban development

Coverage: Worldwide

Total number of items: 8,500

Update: Irregularly

Languages: English; French; Spanish

Indexing/Classification tools: UNCHS (Habitat) Trilingual Thesaurus in the Field of Human Settlements

Computer: Wang PC

Operating system: MS/DOS

Software: IV + V SYSTEM

Availability: UN system organizations, external users

Printed products: Bibliography on community participation (2 vols.); Bibliography on local building materials, plant and equipment; HABIRES - on-going research in the field of human settlements; Habitat awareness bulletin; Habitat news index; UNCHS (Habitat) bibliography (4 vols.)

Distribution media: Printout

Contact: Ms. S. Tavares
Junior Documentalist
Information Systems Unit
UNCHS (Habitat)
PO Box 30030
NAIROBI
Kenya

Telephone: + 254 2/33 39 30

Telefax: + 254 2/52 07 24

Cable: UNHABITAT NAIROBI

Telex: 22996 unhabke

Database Name: UNCITRAL Law Library On-line Catalogue

Organization: UN. United Nations Office at Vienna. Office of Legal Affairs. International Trade Law Branch

Database established: 1989

Database type: Bibliographic

Subject scope: Civil law; contracts; dispute settlement; international law; maritime law; transport

Coverage: Worldwide

Timespan: 1979 - present

Total number of items: 4,800

Languages: No language restrictions

Indexing/Classification tools: UNBIS Thesaurus; Universal Decimal Classification (UDC)

Computer: IBM PS/2

Operating system: DOS

Software: CDS/ISIS (Mini-micro version)

Availability: UN system organizations

Contact: C. Bueno-Guzmán
Law Librarian
UNCITRAL Law Library
United Nations
Vienna International Centre
Wagramerstrasse 5
PO Box 500
VIENNA 1400
Austria

Telephone: + 43 222/21131 (ext. 4078)

Telefax: + 43 222/232156

Cable: UNATIONS VIENNA

Telex: 135612

Database Name: World Fleet Directory (EIN)

Organization: ICAO. Air Transport Bureau. Economics and Statistics Branch

Database established: 1988

Database type: Referral

Subject scope: Air transport

Coverage: Worldwide

Total number of items: 9,000

Update: Continuously

Languages: English

Computer: Bull DPS 7000/30

Operating system: GCOS 7

Software: In-house

Availability: UN system organizations; external users

Distribution media: Diskette; magnetic tape; online

Contact: Mr. U.K. Wickrama
Chief, Forecasting and Economic Planning Section
Air Transport Bureau
ICAO
1000 Sherbrooke Street West
MONTREAL, Quebec
Canada H3A 2R2

Telephone: + 1 514/285 8219

Telefax: + 1 514/288 4772

Cable: ICAO MONTREAL

Telex: 05 24513