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TD/B/C.4/328
30 January 1990

United Nations Conference on Trade and Development

Original: ENGLISH

TRADE AND DEVELOPMENT BOARD
Committee on Shipping

DEVELOPMENTS IN MULTIMODAL TRANSPORT

Report by the UNCTAD secretariat

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Introduction

(i). In its resolution 61 (XIII) on its programme of work, the Committee on Shipping requested the UNCTAD secretariat to complete the outstanding requests for studies on multimodal transport and containerization.¹ This report has been prepared in response to that request.

(ii). In its resolution 60 (XII) on multimodal transport and technological developments, ports, international shipping legislation, technical assistance and training, and assistance among developing countries, the Committee on Shipping requested the UNCTAD secretariat:

"To continue its examination of technological developments in data processing, including development of the MULTISHIP programmes, and to make recommendations thereon to the Committee."²

(iii). This resolution also instructed the UNCTAD secretariat:

"To elaborate a standard form and model provisions for multimodal transport documents, in close collaboration with the competent commercial parties and international bodies, based on the Hague Rules and Hague/Visby Rules as well as existing documents such as the FBL of the International Federation of Freight Forwarders Associations (FIATA) and the International Chamber of Commerce (ICC) uniform rules for a combined transport document;"³

(iv). The resolution further requested the UNCTAD secretariat,

"To co-operate with the regional commissions in conducting studies for identifying and improving the role of freight forwarders in developing countries."⁴

(v). Committee resolution 61 (XIII) also requested the UNCTAD secretariat:

"To start the operation of a reference library for multimodal container tariff rules ... within the resources available to UNCTAD and to investigate, also within existing resources, the possibilities of electronic storage and retrieval of data and report thereon to the Committee on Shipping at its fifteenth session."⁵

In view of developments regarding the reference library, it has been found useful to report to the Committee already at its fourteenth session.

(vi). In paragraph 23 of the same resolution, the Committee urged the UNCTAD secretariat:

"To continue its work to expand the Automatic System for Customs Accounting and Statistical Data Acquisition, Control and Management (ASYCUDA) to include transport statistics..."

(vii). This report is consequently divided into four parts covering issues relating respectively to technological developments (chapter one), freight forwarding (chapter two), multimodal transport documents (chapter three), and the reference library (chapter four). Where appropriate it makes proposals for further work which the Committee may wish to consider and endorse. These proposals should be considered in conjunction with those contained in the secretariat report "Inventory of existing mandates and new draft programme of work in the fields of multimodal transport and technological developments" (TD/B/C.4/323).

¹ Report of the Committee on Shipping on its thirteenth session, (TD/B/C.4(XIII)/Misc.2), Annex I.

² Report of the Committee on Shipping on its twelfth session, (TD/B/C.4(XII)/Misc.3), Annex I.

³ *Ibid.*

⁴ *Ibid.*

⁵ Report of the Committee on Shipping on its thirteenth session, *op. cit.*

Summary and conclusions

1. Technological developments in the field of transport-related data processing are progressing at a very rapid pace in developed countries, leaving many developing countries behind. The same is true in the field of international physical distribution, where multimodal transport operators (MTOs) from developed countries are expanding their services in terms of both services offered and technology employed.
2. Unless concerted action is taken by the developing countries themselves, the improvements they have made over the last two decades in the development of their own transport companies may be irrevocably lost and the majority of such companies may be relegated to the status of short-haul sub-contractors. Developing countries should take the earliest possible action to implement appropriate measures, relating in particular to:
 - (1) Acquiring the necessary expertise and technology to utilize modern electronic data interchange (EDI) within their transport industries;
 - (2) Modifying existing regulations to take these latest developments into consideration so as to facilitate the introduction of new technologies; and,
 - (3) Creating sufficiently large transport organizations that will have the capabilities for operating competitive physical distribution logistics services.
3. Such action should not be of a restrictive or protective nature impeding the use of these technological developments, since this in many cases will not benefit national economies. It should instead provide an opportunity to acquire the latest transport concepts and technologies, coupled with a broadening of expertise, particularly in the management of transport companies.
4. The development or rather the transformation of freight forwarders into MTOs and their joining forces with other transport-related companies would seem to open the possibility of indigenous transport organizers attaining a size which will allow them to play a greater role in the transport of goods from and to developing countries.
5. The elaboration of a standard form and model provisions for multimodal transport (MT) documents based on the Hague Rules and the Hague-Visby Rules is progressing in close co-operation with the competent commercial parties. A new set of uniform rules for MT documents has been drafted jointly with the ICC and various commercial organizations associated with it. It is the intention to submit the draft rules to the Committee for its information. Once agreed to by the various national bodies of the ICC, the new rules will be published as "ICC/UNCTAD Uniform Rules for a Multimodal Transport Document", replacing the current ICC Uniform Rules for a Combined Transport Document. Subsequently, a standard form of MT document will be prepared in compliance with Committee resolution 60 (XII).
6. The reference library for multimodal container tariff rules, established at the request of the Committee on Shipping, has not met with the response expected, and it is suggested that the library be terminated.

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Chapter I

Technological developments

A. Technological developments in electronic data processing

7. The latest developments in this field are, to put it mildly, overwhelming, and not just for developing countries, but for developed countries as well. This is particularly so for the transport industry, where very rapid progress has been made. Developments in this field can be divided into four areas,

- (1) Hardware developments;
- (2) The advantages of data standards;
- (3) Communications developments; and,
- (4) Software developments.

Hardware developments

8. The rapidly increasing power of micro computers, also known as "personal computers" (PCs), coupled with the reduction of their price, has brought this tool within reach of all but the smallest transport companies. It has, for example, been reported that worldwide shipments of PCs during 1988 reached an estimated 21 million units.⁶ The introduction of PCs in the transport industry in developed countries is progressing in parallel. In 1987 the French National Railways and British Rail had, for example, 9,000 and 8,000 respectively, with PCs increasing by 2,000 units per year in the United Kingdom.⁷ The latest generation of PCs now has a maximum capacity of 1.3 gigabytes (1,300 megabytes), with up to 16 megabytes of memory. The development of new, powerful models using the disk operating system known as "MSDOS", as well as the gradual switch from this disk operating system to the one called "UNIX", which allows direct communications with mainframe computers, has opened the possibility of using local area networks (LANs) connecting up to 250 PCs rather than investing in larger systems such as mini computers.⁸

9. In order for MTOs to be able to compete effectively, they must invest in this type of equipment. Their staff must be trained and their computers must be able to communicate with other computers outside their own organization using agreed standards of communication. However, it cannot be emphasized too strongly that, in the introduction of data processing, functional specifications should first be carefully examined and formulated before hardware is acquired.

The advantages of data standards

10. Most people have today heard of electronic data interchange (EDI). It is generally defined as the computer-to-computer transfer of commercial and administrative data transactions using an agreed standard to structure the data pertaining to the transactions.

11. The most commonly quoted advantages of EDI are:

- EDI saves on clerical costs by avoiding re-entry of data and allows timely and error-free transaction information to be passed from one computer to another;
- EDI improves information management and data exchange within and between organizations, introducing new business strategies such as "just-in-time" (JIT);
- EDI allows quicker and more accurate processing of invoices, speeding up payment and thus

⁶ *The PC comes of age at last*, Lloyd's Maritime Information Services Review, London, November 1989, p. 2.

⁷ Final draft report, Intergovernmental Railway Group Meeting, Sixth Session, ESCAP, 27 November-1 December 1989, para 51.

⁸ Disk operating systems that are not fully compatible with MSDOS or UNIX will not be able to communicate with the majority of PCs used in the transport industry.

improving cash flows; and,

- EDI facilitates and speeds up border controls and other official interventions, such as Customs clearance of goods and means of transport, and computerized controls to improve the efficiency of the controlling authorities.

As a whole, EDI is a new way of doing business and improving customer service. EDI is becoming an indispensable feature in production and trade, whether domestic or international.

12. EDI offers Governments additional and more up-to-date administrative information about national economic performance and fiscal and commercial balances. Consequently, computerization is increasingly recognized as a useful, practical means of improving revenue collection and control and of identifying main areas of currency and duty loss. For these reasons, investment in computerization tends to focus, initially, on international activities of Customs, exchange control and port operations, extending into adjacent functions of commercial banking and freight forwarding.

13. It has, for example, been estimated in Europe that a saving in the preparation of paperwork of about USD 15 per consignment can be made through the use of EDI. As EDI is being used primarily in developed countries, the cost gap between developed and developing countries, in terms of international trade procedures and documentation, is rapidly increasing. Figures from the European Economic Community (EEC) show that the traditionally accepted costs of documentation under existing requirements represent about 10 per cent of the average value of general cargo consignments. It is claimed that this expense has now been reduced, in trade within the EEC, to about 1.8 per cent.⁹ The significance of this reduction should be self-evident; countries that take steps to introduce EDI with a view to reducing documentary expenses will enhance their competitive position.

Communications developments

14. The concepts of EDI are now being introduced in developing countries in a number of specialized communities; for example linking branches of the same company, counterparts in the same industry (e.g. banks, airlines) or small groups of operational partners (e.g. Customs and freight forwarders, Customs and airlines, container operators and sea carriers, etc.). Within each community, which actually constitutes a computerized "island", the interchange partners can agree on a common transmission method and format for the codes to be used, the message structure, the technique for error correction, etc. Only one bilateral "interchange protocol" is needed to lay down the interchange rules. Even in the absence of a common "language", the conversion from in-house data structure to the format required for the interface with the partner's computer does not cause problems if the number of partners remains limited.

15. However, a system is functioning in one place or "island", there may be a need to connect with other places or "islands". It is here that such conversions become more difficult and costly as the number of partners using different standards increases. In the absence of a unique "language", partners are unable to communicate without having recourse to expensive third party services, clearing houses or other value added networks for the multiple conversions required.

16. In due course partners in one country will wish to communicate electronically with their trading partners in another country, but as the flow of data which accompany the goods from the manufacturer's premises to the final buyer's premises passes from one computer to another, from one "computerized island" in one country to another "computerized island" in another country, there is a need for a common universal "language" which will permit end-to-end information transfer irrespective of the type of computer and the type of communication used. Examples of such data links include the Poland/Finland *Polpak*, while in the USSR a system called *Ediflot* is being developed for use by Soviet shipping lines, road hauliers, railways and other members of the distribution industry.

17. Once a decision to establish a system of communications has been reached between two or more parties, it would be convenient for these to come to some kind of "electronic data interchange agreement". One such agreement has been drawn up by the EDI Association of the United Kingdom¹⁰ from where interested organizations may be able to obtain a copy. The agreement is "intended to govern the

⁹ *Electronic Data Interchange and Developing Countries*, (IDFA Discussion Paper No. 2), International Data Exchange Association, Brussels, June 1988, p. 7.

¹⁰ 1st floor, 26 King Street, London SW1Y 6QW, United Kingdom.

rules of conduct and methods of operation between the parties in relation to the interchange of data by teletransmission for the purposes of or associated with the supply of goods and/or services (hereinafter referred to as "Trade") and take account of the Uniform Rules of Conduct for Interchange of Trade Data by Teletransmission (UNCIT) as adopted by the International Chamber of Commerce."¹¹

18. Work in this field within the United Nations system is undertaken under the auspices of the Economic Commission for Europe (ECE). The ECE Working Party No. 4 on Facilitation of International Trade procedures (WP.4) has developed a set of rules for Electronic Data Interchange for Administration, Commerce and Transport (EDIFACT) published as International Standard ISO 9735 and now often referred to as "UN/EDIFACT" to signify their universal nature.

19. UN/EDIFACT is a set of rules which facilitates the electronic interchange of trade data between manufacturers, exporters, wholesalers, distributors, retailers, brokers, forwarders, shippers, consignees, carriers, banks, insurers, port authorities, Customs, etc. It replaces the traditional transmission of paper documents with electronic files sent through uniformly built messages that follow international standards. By using EDIFACT, local EDI projects, such as the one currently being developed at Port Kelang, can grow without fear of technological obsolescence.

20. Although countries members of other United Nations organizations but not members of the ECE may attend WP.4 meetings, very few do. Up until now, the only active non-ECE participants have been Australia, Japan and New Zealand (the United States and Canada are full members of ECE), while there has been occasional participation by delegations from *inter alia*, Kenya, Republic of Korea, Nigeria, Senegal, Singapore and the United Republic of Tanzania. This does not, however, mean that developing countries are completely left out of these very important developments. The UNCTAD Trade Facilitation Programme (FALPRO) has been intimately involved in this work from its inception and has circulated information to national facilitation committees around the world. Nor does it mean that what is being developed by WP.4 is to the detriment of developing countries, since the development work has been undertaken with the sole objective of ensuring faster, cheaper and more reliable transfer of information. But it does mean that the necessary knowledge concerning EDIFACT may not be readily available to the transport industry in most developing countries. Moreover, until now, none of the many general and specialized EDI seminars which have been held over the last two or three years has mounted any worthwhile examination of the implications of EDI for developing countries.¹²

21. This is particularly worrying since rapid moves are now under way for the introduction of EDI between loading ports in developed countries and discharging ports in developing countries. Large vessel-operating MTOs in developed countries have wholeheartedly backed the introduction of EDI and are now introducing the so-called down-loading of entire manifests and bayplans using satellite links in some developing countries. The advantages this brings to the (developed country) MTOs may have a very adverse effect on their developing country competitors.

22. For this reason it would appear that there is an urgent need for much greater involvement by developing countries in this field. In line with the completion of the actual development work of EDIFACT, there is a need for action on several fronts within the developing countries themselves. Firstly, there is an urgent need for dissemination of information concerning EDI in general and EDIFACT in particular, and secondly there is a need to develop EDIFACT messages for local use. Development of such EDIFACT messages is undertaken by Rapporteurs. WP.4 originally appointed three EDIFACT Rapporteurs to co-ordinate development work in three geographical areas (Eastern Europe, Western Europe and North America). Within each geographical area, the Rapporteur is assisted by an advisory and support team. The Rapporteurs have each established a consultative machinery to establish facilities to develop, maintain and implement the EDIFACT rules and related components, to develop, where appropriate, technical assessment facilities and to work out appropriate co-ordination procedures to ensure co-ordination between themselves and the ECE secretariat. It is estimated that about 500 persons are actively involved in this development work at no cost to the United Nations.

23. A fourth Rapporteur function covering the Southern Pacific is being now established, at first to cover only Australia and New Zealand. A fifth Rapporteur function comprising one or more Far Eastern countries may also be created. It is in South-East Asia that developing countries and territories have made the greatest strides in the application of EDI. Both Singapore and Hong Kong are well

¹¹ EDI Association, Standard Interchange Agreement, 1st edition, London, March 1989, preamble. See also ICC publication No. 452.

¹² *Ibid.*

ahead, with other countries of the subregion beginning to come to grips with the concept. It would, however, appear that additional Rapporteur functions would be required in the other regions of the world.

24. At its forty-fourth session, in April 1989, ECE adopted its decision L(44) on UN/EDIFACT,¹³ by which the Commission invited the other regional commissions to co-operate with ECE and UNCTAD in the promotion and application of UN/EDIFACT.

25. Subsequently, at its 1989 session in Geneva, the Economic and Social Council adopted its resolution 1989/114 which, *inter alia*, invited the regional commissions to formulate, jointly with UNCTAD, a draft proposal for interregional co-operation based on projects detailing technical and resource requirements, in the area of trade facilitation, and in particular the phased application of EDIFACT. In response to this invitation, representatives of the regional commissions and UNCTAD met in Geneva in October 1989 to discuss the implementation of the resolution. It was agreed that there should be a single proposal for an interregional project, incorporating four components (training, network of trade facilitation activities, UN/EDIFACT promotion and implementation, and regional participation in trade facilitation work). This draft proposal will be presented to the Economic and Social Council at its next session in July 1990.

26. The location of both ECE and UNCTAD in Geneva allows very close co-operation between the two organizations. In the field of trade facilitation, such co-operation is a long-standing tradition, and in the field of transport it is becoming still closer, while in the field of EDI it is imperative. As a consequence the UNCTAD has, since 1988, participated actively in the bi-annual WP.4 meetings. Within UNCTAD, the Shipping Division is working closely with FALPRO in order to avoid duplication and to ensure a unified approach to the problems related to the introduction of EDI in developing countries. It is, however, also necessary to satisfy the need for more information concerning the various EDIFACT messages, which are also called United Nations standard messages (UNSMs), that have been or are in the process of being developed for the transport industry, shippers, carriers and ports.

27. The EDIFACT messages, or UNSMs, developed so far include:

- (1) International Forwarding and Transport Message (IFTM) framework, which in turn includes the following six messages:
 - (a) Provisional booking;
 - (b) Firm booking;
 - (c) Booking confirmation;
 - (d) Instruction;
 - (e) Instruction contract status; and,
 - (f) Arrival notice;

and important related messages such as:

- (2) Commercial invoice;
- (3) Purchase order;
- (4) Dispatch advice;
- (5) Delivery schedule;
- (6) Just-in-time message;
- (7) Customs declaration;
- (8) Documentary credit; and,
- (9) Various service messages.

28. The International Maritime Organization (IMO) has developed a series of standard electronic messages covering the clearance of vessels. These are known as EDIMAR and include:

- (1) General declaration (IMO FAL Form 1);
- (2) Cargo declaration (IMO FAL Form 2);

¹³ E/1989/34; E/ECE/1196.

- (3) Ship's stores declaration (IMO FAL Form 3);
- (4) Crew's effects declaration (IMO FAL Form 4);
- (5) Crew list (IMO FAL Form 5); and,
- (6) Passenger list (IMO FAL Form 6).

29. The cargo declaration, equivalent to the cargo manifest, will reflect the relevant parts of the IFITM messages pertaining to a vessel's cargo.

30. One very practical effect of EDI is the recently implemented United States Customs requirement for a unique bill-of-lading number. From 1 April 1989, all bills of lading lodged with the United States Customs have been required to carry a unique identifier similar to that in worldwide use for airwaybills for years. The United States bill-of-lading identifier has two elements:

- (1) A four-character alphabetic code known as SCAC (standard alpha carrier code); and,
- (2) A code up to 12 characters in length which can consist of letters, numbers or both.

Most ocean carriers serving the United States are connected electronically to the United States Customs Service's automated manifest system (AMS), and the unique identifier is an essential aid for document processing between the carriers and the Customs Service.

31. Work is continuing within ECE to create a similar unique identifier for more general use. In due course it may be possible to introduce such a system on a world-wide basis, but it would be important to provide developing countries with an opportunity to let their views be known.

32. In response to these developments, work is now being undertaken by a number of transport organizations to create communications links that use agreed data standards. One developed country non-vessel-operating MTO (NVO-MTO) has, for example, developed a complete communications system that links its main clients, namely shippers, subcontracting carriers and consignees, through its EDI software. The NVO-MTO felt it was particularly important for clients using the JIT technique.

33. In the field of freight forwarding and EDI, two developments relate directly to the work of the UNCTAD secretariat, namely the entry into operation of FIATA's Multimodal Transport Institute, and FIATA's decision, at its 21st World Congress in Sofia, Bulgaria, in 1989, to endorse the creation of a FIATA/SITA (Société Internationale de Télécommunication Aéronautiques) system of EDI. The EDI system originally created for the airline industry, now links some 370 members all over the world. The new system will allow FIATA members, wherever they are, to access the SITA EDI network on an equal footing with other companies, and at equal cost. Other organizations providing such EDI services include the International Maritime Satellite Organization (INMARSAT).

34. In the field of communication between container operators, the Container EDI Council (CEDIC) has been formed to "build consensus between EDI users from various sectors of the container industry on issues such as message design and data coding and also to assess what new messages ought to be developed."¹⁴ The basis for electronic communications between container owners, carriers and depots is intended to be the ISO container equipment data exchange code (CEDEX) (ISO 9897 standard). CEDEX is a code which is to be used for container inspection, repair and repair authorization communications developed by ISO with inputs from the shipping and leasing industry for incorporation into the UN/EDIFACT system.¹⁵

35. Not all data access requires two computers to communicate with each other. A few large VO-MTOs (of which at least one is from a developing country) have, for example, created a system which provides shippers and consignees with on-line access to its data base via a touch-tone telephone. The client dials a toll-free number and enters the specific bill-of-lading number, and this prompts the system's automatic (electronic) voice response. The client then presses the appropriate keys on the telephone, which then prompts the MTO's computer to supply the desired information such as the exact location of a consignment on its way from shipper to consignee or its Customs clearance status. Alternatively, the client may be able to book space on a future departure. All these facilities are available 24 hours a day, seven days a week and without any involvement of the carrier's staff. Such a system is used not only by shippers and consignees, but also, for example, by the road haulier required to pick up a certain consignment.

¹⁴ *The open container*, Ocean Voice, London, Volume 9, No. 4, p. 14.

¹⁵ *Ibid.*

36. But many of these systems, frightening though they may be when seen from some developing countries, are only the start of something much bigger, the use of data with expert systems incorporating artificial intelligence (AI). Large VO-MTOs who might be operating their own container terminal could, for example, use such AI systems to reduce container handling and thus costs. Additional comments on this subject are to be found in paragraph 62 below.

37. In developed countries the question is already being asked: "If you are not going to be in EDI, are you going to be in business at all?" Similarly, it has been said: "The move to EDI is inevitable, but the key to successful implementation is maximum co-operation between trading partners."¹⁶ There are already companies that will only do business with suppliers or sub-contractors if they can link electronically to the company. One United States railway, for example, told its third party agents in 1987 that they had until 1 January 1988 to establish an electronic interface with the railway for transmission of booking information. Non-EDI communications would no longer be accepted.¹⁷

38. A further development is that of so-called integrated services digital networks (ISDN) which is a new international service using high-speed digital switching systems. It will support the near instantaneous transmission of data, text, images, videos and voice over normal copper telephone lines. While the system is not expected to become widely utilized in the near future, since it is unlikely to be in full operation before 1993, over the longer term it may have a very considerable impact.

39. The Committee on Shipping may wish to request the secretariat to undertake information activities for the transport industry in developing countries, in close co-operation with FALPRO and ECE and with the other regional commissions.

Software developments

40. The number of software packages specifically aimed at the maritime industry continues to grow. It is today possible to purchase "off-the-shelf" packages on a variety of maritime subjects, from those of a purely technical nature such as engine performance, planned maintenance, temperature control, etc., to accounting packages, container tracing, voyage estimation and documentation production. There is, for example, software that enables carriers to generate and print their own legally acceptable shipping documents using a micro computer and a laser printer. Most importantly, several different forms, satisfying legal requirements for individual countries in the world, can be prepared using the same basic information.¹⁸

41. In general it can be said that it would be the exception rather than the rule if a ready-made software package was not available for the average transport company. Many such "off-the-shelf" packages can be modified to suit individual needs, and it is, in the opinion of the UNCTAD secretariat, preferable for interested buyers to scrutinize the available packages carefully first before they consider the writing of expensive customized software. The development work for such packages can often cost hundreds of thousands if not millions of dollars and even then a satisfactory end product cannot be guaranteed.

42. One of the few areas where ready-made packages are in short supply is in route studies for liner shipping, particularly when inland transport of goods (containers) is an integral part of the transport. It was for this reason that, several years ago, the UNCTAD secretariat commenced its development work of the MULTISHIP software packages.

43. The Shipping Division has continued its development of this software. In its last report to the Committee on Shipping, the secretariat mentioned the four separate programmes that make up the complete MULTISHIP package. Of these, MULTISHIP Model II has been the most successful. In 1987, MULTISHIP Model II Version 5C was released. A new version is expected to have been released by the time the Committee meets.

44. The new version combines a relatively user-friendly input programme with the calculating programme. It has been expanded to handle a total of 999 cargo flows between a total of 20 ports each with up to three inland terminals. It has been suggested that this programme is one of the most pow-

¹⁶ M. North as quoted in *Ready for EDI*, in *Cargo Systems*, Volume 16, Number 1, London, January 1989, p. 57.

¹⁷ *EDI at the leading 'Edge'*, *Cargo Systems*, Volume 14, Number 8, London, August 1987, p. 53.

¹⁸ *Now shippers can defeat the documents bugbear*, *Lloyd's List*, London, 10 October 1989, p. 5.

erful tools available on the market for VO-MTOs. Owing to the programme's relative complexity, the Shipping Division has made provision for training of users, to be made available to them at their expense. For further details, interested parties are requested to contact the Shipping Division directly.

45. In response to Committee on Shipping resolution 61 (XIII), paragraph 23, the secretariat has been actively involved in the addition of a transport component to the *Automated SYstem for CUstoms Data (ASYCUDA)* programme. This consists of a software package designed by UNCTAD for use as a national Customs data entry system which will process Customs entries, produce revenue accounts and compile foreign trade data bases. It undertakes Customs book-keeping functions, reconciles statistical and accounting data and prepares trade statistics based on verified data. The development of the transport component has been made possible by a donation by the Italian Government. The transport module will allow the extraction of transport statistics going beyond the port gate. This work commenced in 1989 and should be completed in 1990 or 1991. The secretariat will report to the Committee on this work as it progresses. The standardization of transport statistics based on the ASYCUDA system, which may soon be worldwide, will greatly facilitate planning, not only for the industry but also, just as importantly, for Governments.

46. In parallel with these developments (and in co-operation with ASYCUDA so as to avoid duplication), the Shipping Division has also developed an EDI-based advanced cargo information system (ACIS) under a technical co-operation project providing operational support for the transit transport sector in Africa. Using up-to-date communications links, including micro computers and satellites, ACIS will provide information to create a network linking all the logistics points located between and at the two ends of various transport routes, for example from the loading of cargo in Europe to the delivery thereof in the middle of Africa. At the moment, ACIS is only being introduced in Africa, but it could also be used in other regions of the world.

47. ACIS will provide:

- Advance information on cargo flows. This will allow time to plan the optimum use of transport networks, equipment and standing facilities, which in turn can be used to achieve the best possible transit times for goods;
- A data-base facility for shippers, operators and ancillary services in the transport industry, providing instantaneous details on consignments, including their latest positions; and,
- Historical data which will produce regular transport statistics and performance indicators on modular efficiency and traffic volumes and which will help Governments and institutions with the choice of investment programmes for the transport sector.

These logistics assets, as well as being beneficial to national economies and to the cost-effectiveness of transport resources, will enable local and subregionally based operators to be more competitive in their fields of service. An expanding ACIS network will greatly enhance, and thereby accelerate, the development of inter-African trade.

B. Other technological developments

48. The latest issues of UNCTAD's Review of Maritime Transport contain reference in chapter VI to a number of technological developments such as international physical distribution, the development of inland clearance depots (ICDs), the increasing use of container block train services, and sea-air multimodal transport services.

*International physical distribution*¹⁹

49. The transformation of "traditional" multimodal transport operations into total transport chains goes hand in hand with the development of EDI. As large carriers grow larger, use larger ocean vessels and offer more and more sophisticated packages to their customers, such as the above-mentioned 24-hour access to their computers, the development of JIT techniques requires a much closer carrier-customer relationship than was hitherto considered necessary or even desirable. If consignees are to reduce their stock of raw materials and rely on JIT, they must be assured of a very reliable and steady stream of supplies. This in turn requires very close co-ordination between consignees, their shippers and the carriers. Once a smooth system of deliveries has been set up and all the relevant information fed into various computer systems, it obviously becomes very difficult for the shippers/consignees to change carriers.²⁰ It may of course be possible to do so, but it is not something which can be undertaken lightly or often. Gone are the old days when a shipper shipped with one carrier one day and with another the next. This limits the freedom of shippers, but it also creates a healthier relationship between the shipper and the carrier. In the past it could often be said that the relationship between shippers and carriers was antagonistic, or at best armed neutrality. With the much closer co-operation now required, this relationship becomes one of mutual convenience, and shared advantage. If the carrier wishes to increase his carriage, he must help the shipper become more competitive, and one way is by better performance at competitive cost.

50. Physical distribution is not just for raw materials, but also, and maybe even more, for semi-manufactures or finished products. In the latter case, a physical distribution chain may no longer be warehouse-to-warehouse, but rather factory-to-store. The MTO may co-ordinate the transport of products from a number of sources, and may even operate a reconsolidation centre where consignments from a number of suppliers in different countries are devanned and then reassembled into other containers that go directly to the consignee's individual stores in the importing country. The MTO's services may extend beyond normal shipper/carrier relations, and the MTO may undertake functions that would normally have been carried out by the consignee himself. It has, for example, been reported that one large MTO has concluded a contract with the shipper/consignee to provide the entire logistical support management for a large-scale JIT production scheme.²¹

51. As markets in developed countries continue to become more and more sophisticated, traders will increasingly insist on the utilization of carriers that can offer such physical distribution services. For example, if a shipper is not capable of matching the importer's requirements for timely delivery of products, he is likely to lose the business. The reason for this is that modern distribution requirements and the need for economies of scale may force an importer in a developed country to change supplier rather than to rely on erratic sourcing. It is possible to imagine a situation where a supplier, because of the requirements of a cargo reservation law, does not have a choice of carrier. If the national ocean carrier, which must be used, does not have a sailing that will meet the importer's tight production schedule, the importer may be forced to change to a supplier from another country where the same constraints are not imposed. This may not be true for import cargoes where no JIT system is in force or for export cargoes not having to comply with the JIT concept.

52. The suggestion here is not that cargo reservation laws should be scrapped, but only that a primary goal of MTOs from developing countries should be to make a very major effort to operate with an efficiency that can match that which is offered by MTOs from developed countries.

53. It is suggested that, in developing countries, this level of sophistication may best be achieved by NVO-MTOs specifically set up with this one purpose in mind. Again, this suggestion is not made in any way to minimize the performance of ocean carriers in developing countries, but only to point out that they may not have the necessary network and expertise to ensure the very close attention to the cargo required at all stages of door-to-door transport. Consequently, if developing countries wish to compete for the top layer of trade, they may find it necessary to create new NVO-MTOs that may have as their shareholders various unimodal carriers and freight forwarders who have the necessary know-how and who are equipped with the latest computers and communications material, so that they

¹⁹ *Physical distribution* refers to the physical movement of the flows of the goods which a firm endeavours to ship (finished products, parts), transfer (semi-finished products, goods in process) and receive (raw materials, supplies, etc.). It involves the transfer of goods between different modes of transport, possibly across borders, with a systems approach to all activities and functions in the distribution chain in order to reduce and, where possible, eliminate interruptions in the continuous movement of goods and transport equipment from origin to destination. Physical distribution costs include: transport, packing, handling, storing (warehousing), inventory, order processing, material, personnel, etc.

²⁰ See also "Information material for shippers to make the most efficient use of multimodal transport", (TD/B/C.4/330).

²¹ *American Pie*, *Fairplay*, Coulsdon, United Kingdom, Volume 308, Issue 5536, 23 November 1989, p. 11.

can offer the kind of services required by importers in developed countries. Such new entities should be allowed to "start from scratch" to build up a modern team of transport specialists. If, for one reason or another, this is not possible, the Government might wish to investigate the reasons for this inability and then take appropriate action to rectify the situation.

Inland clearance depots

54. An important element in the physical distribution chain is well-functioning inland clearance depots (ICDs). The secretariats of UNCTAD, ECE and the Customs Co-ordination Council have agreed on the following definition of an ICD:

A common-user inland facility, other than a port or an airport, with public authority status, equipped with fixed installations and offering services for handling and temporary storage of any kind of goods (including container) carried under Customs transit by any applicable mode of inland surface transport, placed under Customs control and with Customs and other agencies competent to clear goods for home use, warehousing, temporary admission, re-export, temporary storage for onward transit and outright export."

55. It is important to note that the "C" in ICD refers to "clearance", not "container". The reason for this is that using the word "container" would restrict the meaning of an ICD to a facility that only handled containers, whereas most such facilities also stuff and strip containers in their container freight station (CFS) and Customs clear the goods. ICDs should consequently also be able to handle non-containerized cargoes. The above definition allows them to do so. Another name for an ICD is "inland dry port". This name is preferred in a number of countries. The above definition of an ICD covers an inland dry port.

56. The establishment of ICDs, in both developed and developing countries, has eased or eliminated congestion in container terminals in ports. However, for ICDs to function efficiently, a number of outdated regulations, in particular concerning transport between the port(s) and the ICD, may need to be revised as part of a coherent set of facilitation measures.

Block train services

57. Block train services that operate between a port and an ICD have increased considerably in tandem with the penetration of multimodal transport services. Railways can normally compete with road transport over longer distances. The exact cut-off point where rail becomes more economical than road depends on a number of factors. In some countries it may be as little as 200-300 km, while in others, e.g. the United States, the cut-off point may be over 1,000 km away from the terminus. In developing countries the cut-off point tends to be in the lower range.

58. In theory, rail services which operate over distances beyond the cut-off point should be able to compete effectively with road transport as concerns time, but, far too often this is not the case. The reason is often that the country has set its priorities according to criteria other than those an exporter or importer might prefer. In many cases the movement of people and/or food grain may be far more important for the national economy than the movement of a few hundred or even a few thousand containers. The result is that the block train gets shunted off the main line while a passenger train or a train carrying important bulk products passes. In some cases the railways may not even consider the transport of containers as a priority. This might explain why ESCAP's Intergovernmental Railway Group, at its sixth session at the end of 1989, examined plans for the development of railways in developing countries without much consideration of the question of containerization and multimodal transport.²² Only one document dealt with the transport of containers by rail.²³ This document estimated that the transport of containers by rail would be profitable once the movement reached 30,000 TEUs per annum owing to the number of improvements the national railways would have to carry out before it would be physically feasible to run regular unit train services. The Group did consider the introduction of market-oriented rail services like inland transport of containers, and also took the view

²² Annotated agenda of the sixth session of the Intergovernmental Railway Group Meeting, agenda item 12, ESCAP (TRANS/IRGM(6)/L.2).

²³ "Major findings and recommendations for the development of rail container transport between Malaysia and Thailand", (ESCAP (TRANS/IRGM(6)/7), Intergovernmental Railway Group Meeting, para 80.

that possible developments of rail/sea transport of ISO high-cube containers between countries in the ESCAP region and Europe should be examined.²⁴ It was noted that the Bangladesh Railways had introduced a modest transport capability of 20' containers between Chittagong and Dhaka.²⁵ The Group did not, however, consider containerization one of the major policy issues under its programme of work in the field of railways, and it replaced the work programme item "Development of rail-cum-sea transport" with "Improvement of railway safety."²⁶ Nevertheless, when determined MTOs (primarily from developed countries) push for and obtain preferential access to railway services, it is often discovered that transit times can be drastically reduced.

59. It is well known that containers are often overloaded. For example, a United States Federal Highway Commission study dated March 1989 has shown that as many as one third of all intermodal containers exceeded the allowed United States highway weight limits by between 2,000 and 10,000 lbs.²⁷ Transport of overloaded containers by road inflicts heavy damage on roads, particularly in developing countries, leading to costly, and unbudgeted, road repairs. When properly organized, container block-train services are not only able to compete favourably with road transport, but may also be beneficial to the country through the transfer of container traffic from road to rail, even though this may raise questions concerning the split between public and private transport.

Road/rail equipment

60. Equipment that allows the transport by rail of road vehicles has already been in use in both the United States and Europe for some time. The original system was simply to load the road vehicle, less tractor unit, on to a rail flatcar, the so-called "trailer on flat car" (TOFC) or "piggyback" systems in the United States and Europe. Lately, this has been further developed into bi-modal road-rail vehicles suitable for transport on railway tracks and on the road, thus making transshipment with costly specialized equipment unnecessary.

61. One of these systems consists of road trailers equipped with retractable rail-wheel assemblies, another uses standard road trailers placed on detachable two-axle rail bogies when transported on railway tracks. In recent years these techniques have become increasingly popular, especially for medium-distance transport markets in the United States, giving the railways the ability to provide flexible, door-to-door service. One of these systems has been licensed to the New Zealand railways, and several European countries have developed similar road-rail systems for trial in 1989. Similarly, according to a draft ESCAP study entitled "Policy options for the distribution of maximum dimension ISO containers",²⁸ the Indonesian State Railways are considering the introduction of the Road-Railer system as one possible solution for allowing the transport of high-cube containers.

Terminal equipment

62. The latest in terminal handling equipment are the so-called automated guided vehicles (AGVs). These may be driverless container handlers, unmanned automated stacking cranes and new process control systems that allow all commands to be issued from a central computerized location. Unmanned dockside container cranes are also under consideration. AGVs will monitor their own oil, fuel and mechanical functions and use sensors to prevent collisions. They are reportedly so accurate that they judge distances to within a matter of millimetres, even in wind force nine conditions.²⁹

63. Although this type of equipment is still in the prototype stage, it will be field tested at the leading container terminal in Europe from 1993. These field tests are not to be conducted with a single prototype, since the terminal operator has ordered 50 container handlers and 25 stack cranes for the trial. Again the technological development is a massive leap forward. If the trials are successful, terminals and hence their users will derive considerable cost savings. As long as such systems are confined to

²⁴ "Final Draft Report" (TRANS/IRGM(6)/7), Intergovernmental Railway Group Meeting, para 80.

²⁵ *Ibid.*

²⁶ *Op. cit.*, paragraph 122.

²⁷ *Overloaded containers*, *Intermodal Asia*, Hong Kong, Autumn 1989, p. 4.

²⁸ It is expected that the final study will be published in 1990.

²⁹ *New Sea-Land terminal at port of Rotterdam to be super automated*, *Journal of Commerce*, New York, 20 October 1989, pp. 1A & 10A; and *The ac alternative*, *Cargo Systems*, London, November 1989, p. 65.

ports that do not directly compete with those of developing countries, it would not seem necessary for ports in developing countries to adopt this new technology, but once one port in a developing country introduces the system and that port competes with neighbouring ports, the technological advantage which the more advanced port will gain may have serious repercussions for the less advanced ones.

Automated container identification system

64. At its fifteenth session, in London in June 1989, the International Organization for Standardization (ISO) Technical Committee No. 104 (TC 104) adopted a proposal for the international draft standard on identification of containers by means of automated data processing (DIS 10374). A common standard on such a system had long been considered desirable to ensure that all containers could be identified at any place in the world using the same identification system and generating the same data element.

65. The proposed system consists of a small solid state transponder unit (tag) fixed to the upper side wall of the container and a fixed interrogator which operates on radio waves of high frequency. The interrogator decodes the modulation of the radio wave reflected by the tag on the container and transmits this data to any receiver requesting the information. The tag contains information specifying the alpha-numeric code of the container, its dimensions and the tare weight, i.e. only information related to the container itself and not information related to the cargo. The system is basically intended for terminal use.

66. The main concern in respect of adoption of this system as an international standard was the fact that this device is a patented item and it cannot be produced elsewhere without a licence. Two major United States liner shipping companies have, however, already begun to equip their container fleets, chassis and double-stack railway wagons with this automated data identification system.

67. The Committee may wish to ask the secretariat to keep these technological developments under review and to report thereon from time to time in order to assist developing countries in obtaining the benefits from investment in these new technologies.

Chapter II

The role of freight forwarders in developing countries

A. Development of freight forwarding

68. Worldwide, the future of freight forwarders is a hotly debated issue. The legal status of and the regulations on domestic and international freight forwarding differ widely from country to country. Apart from auxiliary services for transport such as customs broking, documentation and packaging, freight forwarders participate, in many countries, in unimodal, segmented and multimodal transport at the international and domestic levels, but with different levels of responsibilities, their legal status varying from country to country. In some countries their status depends on the mode of transport as well as on the scope of the transport services (domestic or international) they provide,³⁰ while in others national legislation and regulation apply irrespective of the mode of transport or the scope of their services.

69. Moreover, in many countries, including some developed ones, international freight forwarders are neither defined nor regulated and they suffer from a lack of identity in their promotional and regulatory framework. In the absence of internationally recognized definitions, the use of expressions such as "freight forwarders" or "international freight forwarders" is consequently a frequent cause of misunderstanding and confusion. The use of the expression "NVOCC" further increased the confusion, since it means "non-vessel operating *common carrier*" under the definition of the United States Shipping Act of 1984, whereas many freight forwarders in other countries call themselves NVOCCs despite the fact that they disclaim liability as common carrier in their standard trading conditions.

70. In Europe, a few large freight forwarders developed in areas remote from the sea, because shippers were in need of freight forwarding services to overcome complicated procedures for inland and ocean transport, as well as for transshipment arrangements and Customs clearance. Regions closer to the sea were not in the same need of extensive forwarding services. Before the development of containerization in the late 1960s and international multimodal transport in the mid-1970s, European freight forwarders' activities tended to be confined to their own region, and their services were limited to the following fields and functions:

- (1) Port freight forwarders: acting on behalf of shippers and consignees in booking cargo space and receiving and obtaining Customs clearance for imported goods;
- (2) Border Customs brokers: handling Customs formalities at European border crossings;
- (3) Rail forwarders: acting as intermediaries between the state railways of Europe and shippers; and,
- (4) River transport brokers: specialists in agencies for river barges and shippers.

71. These services required neither financial strength nor substantial investment in facilities. Today, however, should freight forwarders wish to participate in containerization and international multimodal transport or respond to the shippers' increasingly sophisticated requirements for logistics management, they must have the financial means of undertaking door-to-door responsibility as NVO-MTOs. They would also be obliged to invest substantial capital in computers and communication equipment in order to build up international service networks and on-line communication systems. As a result, the big forwarders will grow bigger, whereas smaller freight forwarders will be forced to specialize in one of the traditional functions of freight forwarding or to drop out of the industry completely. Consequently, shippers will have a smaller range of competing forwarders with whom to place their business, although each freight forwarder may be offering a widening choice of services, including some that may be tailor-made to clients' own specifications.

72. The freight forwarding industry is, however, very flexible and innovative in pursuing business opportunities as they arise. A good example may be traditional freight forwarders who have extended their scope of business beyond the old procedural functions for import and export. Some large trucking companies and to forwarding departments of some ships' agents or warehousing companies have also

³⁰ Under the United States Shipping Act of 1984, no company acting as "ocean freight forwarder" is allowed to issue ocean bills of lading or multimodal transport document. A "non-vessel-operating common carrier" can, on the other hand, issue such documents.

entered this field. In addition to extensions of activities by existing companies, new ones have also been established by various interests, such as containership operators, railways, trading houses or manufacturers. These not only handle cargo for their respective parent companies, but also provide services for third-party shippers.

73. The diversification of services in the industry and demands from shippers for door-to-door multimodal transport services under fixed price contracts and single responsibility are thus changing the freight forwarder's relationship with his clients. Freight forwarders must now contract as a principal, assuming total responsibility and liability for the performance of the service they offer.

74. If freight forwarders wish to take on such increased responsibilities, they need a new name. NVO-MTO is such a new name. It is important to pay attention to the distinction between a freight forwarder and an NVO-MTO. A freight forwarder acts as an agent, an NVO-MTO as a principal on equal footing with major vessel-operating MTOs (VO-MTOs). It is in the interest of freight forwarders themselves to pay attention to this difference in terminology and to grasp the enhanced status they can derive therefrom.

75. In many developing countries, freight forwarders are facing similar problems related to lack of recognition, accreditation, distribution capabilities and training.

76. Lack of recognition: Shippers generally do not recognize the industry's capabilities. This may be owing to their lack of awareness of what freight forwarders can do, their lack of confidence in freight forwarders' agency networks, and the minimal, if any, entry requirements for joining the profession. This lack of recognition might also result from the fact that some forwarding companies are created primarily to support parent shippers and that the freight forwarding industry's marketing practices do not explicitly describe services being offered.

77. Accreditation: In many countries, there is no professional or financial barrier to entry into the forwarding business, and this encourages "fly-by-night" or "attaché-case" operators. This situation results in a wide difference in the service capabilities offered by freight forwarders and by companies extending their original services into forwarding, as agents, principals or NVOCCs, limiting the ability of an inexperienced shipper to select a forwarder intelligently. Some form of accreditation with minimum qualifications for forwarders is consequently recognized as desirable both for the industry and for shippers.

78. Distribution capabilities: There is a wide range of distribution capabilities among freight forwarders. Some are multinational companies with long-established networks of offices around the world. Others maintain their networks through agency agreements which vary from formal written contracts or joint ventures with forwarders residing in other countries to casual requests for services from a forwarder listed in a directory. Such agency arrangements might be counter-productive for local forwarders, since, once sufficient volumes of traffic have developed, the foreign company will frequently establish a branch office, thereby depriving the local freight forwarder of his business or at best relegating him to the status of a mere sub-contractor. In some countries, national laws have consequently been introduced to control this practice through mandatory requirements that shipments be handled by companies owned by their citizens. This type of law must be approached with caution, since they may result in reciprocal action being taken by other countries. This would in turn deny access for the freight forwarder from the restricting country to the other country.

79. Training: There are severe limitations on the professional development of freight forwarders in many countries. In the absence of formally recognized education or apprenticeship programmes, on-the-job training is the main alternative for preparing technicians and managers.

80. The UNCTAD technical co-operation and training activities in the field of multimodal transport have made the secretariat aware of the fact that multimodal transport is not operational in developing countries on anywhere near the scale it ought to be. In some rare cases, internationally established freight forwarders are offering combined transport operations, but, generally speaking, local freight forwarders are simply relegated to the role of agents for the shippers. Expanding multimodal transport operations in developing countries requires the wide dissemination of information on these issues, in particular with regard to the technological changes affecting international trade and transport. In addition, constant support for the freight forwarders' efforts to strengthen their national and subregional structures appears to be necessary.

B. Co-operation with the regional commissions in the field of freight forwarding

81. The secretariat has co-operated with the Economic and Social Commission for Asia and the Pacific (ESCAP) in the elaboration of a workshop for freight forwarders. The basic workshop material had been prepared by UNCTAD as part of a technical co-operation programme. This material was first reviewed and commented on by FIATA and subsequently passed on to ESCAP, which had the necessary financial resources to carry out the required improvements. The revised material was then returned to UNCTAD for comments. After having also received comments from the freight forwarding industry, ESCAP will carry out final corrections, after which it is hoped that the workshop can become a valuable tool in the training of freight forwarders in developing countries.

82. There has been similar co-operation with the Economic Commission for Africa (ECA) in the context of an ongoing UNDP-financed project on human resources and institutional development in freight forwarding for sub-Saharan Africa. The objective of this project is to determine those internal and external factors which assist or constrain the human resources performance and manpower development of ports, freight forwarding and multimodal transport organizations in Africa.

83. In the Economic Commission for Latin America and the Caribbean (ECLAC) region, UNCTAD has participated in activities aimed at the improvement of freight forwarding in Latin America. One presentation of the concept of multimodal transport was made in the context of a World Bank/ECLAC seminar on containerization on the East Coast of Latin America. Two other presentations were made at the annual meetings of the Latin American Association of Freight Forwarders (ALACAT). As a side-product of these activities, UNCTAD is collaborating with the regional organization the Commission of the Cartagena Agreement (JUNAC) in a UNDP-financed project aimed at promoting multimodal transport and containerization in the countries of the Andean Group (Bolivia, Colombia, Ecuador, Peru and Venezuela).

Chapter III

Elaboration of a standard form and model provisions for MT documents based on the Hague Rules and the Hague-Visby Rules

84. In accordance with resolution 60 (XII), section I, paragraph 2, the secretariat invited interested organizations from both developed and developing countries to participate in an informal meeting to discuss the possibility of elaborating a standard form and model provisions for MT documents based on the Hague Rules and the Hague-Visby Rules. A total of 32 organizations representing shippers, carriers, and intergovernmental and non-governmental bodies from all over the world were invited. Of these, 18 replied and 12 participated.

85. In preparation for the meeting, the secretariat circulated a table comparing various "standard" combined or MT documents and a draft agenda. At the meeting, on 12 October 1989, the secretariat presented, as a working document, a set of "Possible clauses to be incorporated in a model MT document". Although there was some difference of opinion between shippers and carriers (but not between North and South), there was general agreement regarding the usefulness of the meeting and its aims. There was also agreement that it might be useful to develop a set of joint UNCTAD/ICC Uniform Rules for MT documents.

86. At a subsequent meeting of the ICC Sea Transport Committee, at which the UNCTAD secretariat was represented, that Committee agreed to this suggestion. It was further agreed that it would be convenient if "the competent commercial parties" could be represented by the ICC, which has a worldwide membership.

87. Consequently, UNCTAD called a third meeting, which the ICC delegation included representatives from carriers, freight forwarders, shippers, and the ICC secretariat. The meeting was chaired by a representative of the Comité Maritime International (CMI).

88. At this meeting, it was agreed first of all to develop, as a replacement for the existing ICC Uniform Rules for Combined Transport, new voluntary UNCTAD/ICC Uniform Rules for a Multimodal Transport Document. It was also agreed that the rules would come first and that only later could standard MT document back clauses be drafted.

89. The meeting also decided to establish a small drafting group to consider the following list of subjects:

- (1) Applicability;
- (2) Definitions;
- (3) Documents (negotiable/non-negotiable/electronic);
- (4) Responsibility/liability/delay;
- (5) Dangerous cargo/shippers' responsibility/liability;
- (6) Loss of right to limit liability;
- (7) Vicarious liability questions;
- (8) Time bar and notice of claims;
- (9) Freight and charges;
- (10) Liens;
- (11) Optional stowage; and,
- (12) Routing.

90. The drafting group held its first meeting in Zurich in December 1989. A second meeting took place in early January 1990, with a full ICC/UNCTAD meeting scheduled for February 1990. It is hoped that the final draft rules will be available for the fourteenth session of the Committee on Shipping, at which time an oral report will be made on the progress achieved. It is also hoped that it will be possible for the Committee to take note of the new draft Rules, which in due course, i.e. after approval by the various national committees of the ICC, will be issued to replace the existing Rules.

91. From this it can be deduced that it has not been possible for the UNCTAD secretariat to complete its work on the document itself in time for the fourteenth session. It was, however, felt important to reach consensus on the rules before further work on the actual document was undertaken. It is hoped that a final draft text of a model MT document based on these new rules can be submitted to

the fifteenth session of the Committee on Shipping for its consideration.

92. At its meeting in November 1989, the ICC Sea Transport Committee decided that it would be beneficial for the close working relationship which is rapidly developing between the UNCTAD secretariat and that Committee, for the UNCTAD secretariat to attend its meetings as an observer on a regular basis like other IGOs and NGOs.

93. The UNCTAD secretariat would like to take this opportunity to thank ICC and the various commercial bodies participating under its banner for the excellent co-operation it has received in this important work.

Chapter IV

Reference library for multimodal container tariff rules

94. The Group of Experts to Develop and Recommend Model Rules for Multimodal Container Tariffs decided that it would be desirable to have a reference library containing different types of existing tariffs which potential users might consult. The Committee on Shipping subsequently requested the secretariat to start operating a reference library and report thereon at the Committee's fifteenth session.

95. Though the creation of the tariff reference library was broadly publicized and a special note to this effect was sent by the Secretary-General of UNCTAD to the States members of UNCTAD requesting co-operation in the maintenance and updating of the tariff reference library, the response has been poor. Apart from a few vague requests for "all the tariffs", the last of which was dated March 1988 and to which the secretariat replied that requests had to be more specific and thereafter received no further correspondence on the subject, the secretariat has not received any significant support in its endeavours in this field. The library continues to be open to potential users and contributors, but the project to test the possibilities of creating EDP-based facility for the library has been suspended owing to the obvious lack of interest in the industry. The Committee on Shipping may wish to accept this interim report on the functioning of the reference library as an indication of the lack of commercial interest in the library. Unless advised to the contrary by the Committee on Shipping, the secretariat will cease maintaining the library as of the end of June 1990.