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Report on communications in the United Nations system

by
Robert M. Macy
Joint Inspection Unit

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Table of Contents

Table of Contents (cont'd)

INTRODUCTION

1. This report has been prepared in response to a request by ACC that the UN Joint Inspection Unit "initiate a broad review on a system-wide basis of the operational communications requirements of the various organizations". (Co-ordination/R.905, paragraph 35, 15 October 1971, approved by ACC on 22 October 1971.)

2. In order to determine more precisely what the members of ACC had in mind, a note was sent to each of them asking for further clarification and raising certain specific questions. The replies disclosed a wide area of agreement as to what was wanted, and have served as a guide in making this inspection.

3. This report is concerned primarily with communications in the form of letters, telegrams, and long distance telephone calls. Only a few references are made to bulk printed matter, which is frequently included in mail bags with letters.

4. Included in this inspection were nearly all parts of the United Nations itself and most of the specialized agencies - UN Headquarters in New York and Geneva, OPI, UNCTAD, ILO, ITU, WMO, WHO, UNESCO, FAO, IMCO, and UNDP. In addition, a review was made of the public and commercial telecommunications systems around the world. A crucial question for this study was whether the present and prospective public and commercial systems are adequate for UN communications needs or whether for certain purposes in some parts of the world the UN must have its own communications facilities.

5. During the course of this inspection, it became clear that misunderstandings and differences of view regarding UN communications requirements have resulted from lack of recognition of the need to divide such requirements into several categories for purposes of analysis. In organizing this report I have had in mind four categories, namely (1) day-to-day operations, (2) disaster relief, (3) peacekeeping activities, and (4) information activities.

6. Although the interest of the UN Office of Public Information in the use of satellites for transmitting information material, including radio and television programmes, was fully recognized and is discussed briefly in Chapter VIII, attention was focused primarily on the internal communications of the UN family. The ACC, which requested this study, appeared to be thinking primarily of internal communications. Also, there appeared to be general agreement that it should not include special communications systems such as educational satellites or those for monitoring the environment.

7. This study deals with a very complex and controversial subject. An attempt was made, in so far as was practicable, to uncover some solid facts on which to base conclusions. It was inevitable, however, that a number of the observations and conclusions could not be specifically documented, and necessarily represent the judgement of the Inspector based on information at hand. Throughout the study I had access to a very helpful senior official of ITU for technical advice and counsel, as well as full cooperation from the various members of the ACC during my visit to their offices, which made this report possible.

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

A. Conclusions

8. Communications have not been a major problem of the United Nations family in recent years and considering the small amount of money spent by them on communications, the results have been surprisingly good.

9. Through contracting for telephone and telex services, and using air freight in the form of sealed mail bags, the UN family has been able to take advantage of the latest developments in telecommunications and aeronautics for day-to-day operations. Substantial increases in UN communications expenditures could result in more rapid service, but the typical crisis-free tempo of UN day-to-day operations probably would not justify such expense. For example, by hiring a lot more people, installing the latest mechanized sorting equipment, etc., all mail received in the pouch room at UN Headquarters might conceivably by distributed to the addressees within an hour. However, if the average letter that arrives in Headquarters is not answered for a week or two, and is concerned with less urgent matters than telegrams, the distribution after lunch or even the next morning of a letter arriving at 9 a.m. would not create serious delays in a work programme.

10. The major opportunity for increasing the efficiency of day-to-day communications for the UN family appears to be an increasing concern by management with "performance" control, not just cost control. Most members of the UN family have an active cost control programme involving restrictions on overtime for drivers of mail trucks, review of cables for excessive numbers of words, restrictions on long distance telephone calls, etc. However, far less attention is paid to performance control. Performance goals have not been established as a basis for analyzing operations data. Often there are no written instructions explaining, for example, when to use regular air freight and when to use the pouch, what to do if a letter "misses" the pouch and the next pouch does not leave for a week, which developing countries have much better telephone service than telex service and vice versa, etc. Routine checks are not made to weed out those airlines providing unreliable pouch service. Costs may often be reduced at the price of performance. For example, the driver of a mail truck for UN Headquarters in New York leaves some mail bags at the Kennedy Airport until the next day to avoid overtime, and his supervisor is praised for holding down costs; but no-one seems to be equally concerned that the delivery of one or more mail bags was delayed a day. Long distance telephone calls may look comparatively expensive just from an out-of-pocket cost point of view; but in fact a couple of timely calls may be the key to speeding up an important operation and avoiding an expensive trip. What is needed is a better balance between cost and performance considerations and the specific recommendations in this report are generally oriented in this direction.

11. For the various kinds of UN emergency operations, performance rather than cost assumes overriding importance. Although the files do not include case histories of UN experience with emergency communications, conversations with experienced officials in this field indicate that UN employees have met the test when the situation called for the rapid installation of emergency equipment in the field. However, the success of these efforts appears to have been due not so much to careful pre-planning, but more to the enthusiasm and dedication of experienced UN employees who made good use of whatever equipment was immediately available.

12. Looking to the future, there is a major opportunity for the new UN Disaster Relief Office in Geneva to assume a leading role in coordinating disaster relief efforts which have been conducted on a rather ad hoc basis by the various participants in the past. In many countries suffering from disasters, such a role will involve the use of short-range emergency communications equipment in the field. Also, for at least some kinds of peacekeeping operations, the same kind of equipment will be required. The situation calls for more conscious, positive planning to ensure that the UN has a continuing capability to meet such largely unpredictable demands for emergency communications.

13. United Nations communications for informational purposes raise a different group of problems. Available data suggest that many developing countries receive inadequate and often "slanted" information about UN activities. The UN Office of Public Information (OPI) would like to help overcome these shortcomings through expanded UN broadcasts presenting balanced news reports including all points of view in UN debates, and providing better and more timely reception in developing countries located at a long distance from New York. OPI has made little headway in expanding its broadcasting because (1) most if not all Member States are not anxious to have the UN broadcasting more directly to its people with a minimum of local governmental control; (2) the UN does not have the money to finance such a costly expansion of OPI activities; and (3) there is not much point in expanding broadcasts to many developing countries when the real bottleneck is the country's own highly under-developed mass media that reaches only a few of its citizens. Only marginal improvements in OPI communications facilities appear to be realistic at this time.

B. Recommendations

Recommendation 1: Establish one supervising office responsible for the mail room, the telecommunications centre or its equivalent, and the telephone service. (See Chapter II).

Recommendation 2: Develop better routine management reports on communications activity particularly by placing more emphasis on performance controls. Such reporting should be related to written instructions on the use of communications facilities, and established performance goals. (See Chapter IV).

Recommendation 3: Adopt as a general policy the assignment of responsibility to users for living within a given expenditure quota for communications. This means that quotas would be assigned to the various divisions of an organization and enforced. It also means that the UNDP would include all communications costs including UNDP messages sent over the UN network in its "overhead" contributions to executing agencies. (See Chapter II).

Recommendation 4: For day-to-day operations, focus attention in the future on making better independent use of public and commercial telecommunications systems by each member of the UN family, except in those cases where the combined traffic volume justifies leased telex channels for joint use. (See Chapters III and V).

Recommendation 5: When necessary, take steps to ensure that the "pouch room to pouch room" time for mail from Europe to New York does not exceed one day. Comparable goals should be established for other destinations. A second pick-up truck may be necessary in New York or a relaxation of overtime rules to meet these goals. (See Chapter IV).

Recommendation 6: For those countries known to have good mail service but infrequent pouch services, make increased use of airmail express letters with telegraph type messages in order to speed up communications without expanded use of more costly telegrams and telephone calls. If the regular postal service is considered rather unreliable or sluggish in certain countries, PO boxes may be rented that can be emptied any time of day, and copies of important airmail letters can be sent through the pouch as a "hedge" against airmail letters getting lost. Particularly for those countries with the poorest regular mail service, pouch schedules should be reviewed to determine if more frequent schedules or more direct flights should be adopted. (See Chapters III and IV, and Annex II).

Recommendation 7: Take necessary steps, particularly at UN Headquarters, to ensure that urgent air freight is sent by pouch or receives special handling as regular air freight. (See Chapter IV).

Recommendation 8: Arrange for an exchange service between members of the UN family for address lists for documents and publications. (See Chapter III, and Annex III).

Recommendation 9: Follow up the Geneva-New York leased channel arrangements recently put into effect, with the objective of replacing the present "UN network" with leased telex channels where justified by the volume of traffic, including an extension of the network to such points as Rome and Paris. Maintain UN equipment thus replaced in a standby status for possible future use as necessary for emergency communications. Modernize some of the equipment not likely to be replaced by telex service in the near future, particularly through installing rotatable "log-periodic" antennae, and radio transmitters whose frequency can be changed through turning a knob. (See Chapters V and VII).

Recommendation 10: Make advance arrangements for emergency satellite channels in the event that the United Nations should again become involved in a lengthy "Congo" type operation. In other words, priority would be given to UN peacekeeping communications. (See Chapters III and VII).

Recommendation 11: Strengthen the use of telex service through more restricted distribution of copies of cables over leased channels; issuance of a "telex book" including the telex numbers of all parts of the UN family; and insertion of telex schedules in loose-leaf telephone books. (See Chapter V, and Annex IV).

Recommendation 12: Continue to transmit data for computers through the mail for the near future, but periodically review technical developments in the field of "data transmission". Review the present policy of sending UNDP data for storing and processing by ICC in Geneva in the context of surplus computer capacity in both New York and Geneva, and the possible desirability of putting one of these installations on a "real time" basis. (See Chapter V).

Recommendation 13: Adopt a policy of controlling long-distance telephone calls through administrative checks immediately after a call is completed. (See Chapter VI).

Recommendation 14: Acquire a stock of SSB radio equipment (some is already on hand) which is simple to operate and store it at strategic points for use as needed when the UN is invited by a country to assist in the event of a disaster, or is invited to send a peacekeeping mission. Continue the present UN policy of accepting such invitations only if it is agreed in advance that the UN can bring in its own communications equipment as required. (See Chapter VII).

Recommendation 15: As the UN family expands the use of leased telex channels in the future, make use of any slack time during a 24-hour period to transmit the script of recorded programme material for news broadcasts by telex. Particularly in developed countries, make greater efforts to persuade more radio and television stations to make regular use of UN tapes and films which are now sent to these countries by air freight, and to tailor the programmes to the local cultures and attitudes. (See Chapter VIII).

Chapter I

BACKGROUND

14. One of the first items on the agenda of the United Nations General Assembly when it got under way in the late 1940's was the establishment of an adequate communications system. A review of some of the debates in the Assembly at that time suggests that it was considered necessary for the Secretary-General, and other top officials, to have immediate access to the various Member States around the world, especially in the event of great emergencies, and that this objective could be fully realized only if the United Nations built its own communications system. It was also felt that the UN had a responsibility for keeping all Member States informed about UN activities, and thus should have its own broadcasting station or stations to meet this need. A group of experts prepared a proposal for a world-wide communications system, but the General Assembly refused to vote money for its capital costs. It approved only the use of whatever funds could be squeezed out of the regular budget for such purposes, plus authority for the Secretary-General to ask for voluntary contributions.

15. Following the above developments, a very modest point-to-point short wave radio system was put together during the late 1940's and early 1950's, largely in response to emergency situations involving the United Nations in the Middle East, Kashmir, and Korea. The United Nations point-to-point radio system today is still limited to the same geographic area, running from New York to Geneva, on to Nicosia, Jerusalem and Rawalpindi, and from Rawalpindi to Bangkok and Seoul, with a few "spur" lines along the way to other cities. Much of the capital equipment is obsolete by present day standards; and the alternatives for modernizing the system, or contracting for leased telex channels for part of the system where justified by the volume of traffic, are under active discussion.

16. With reference to broadcasting for information purposes, money was never approved for the necessary capital expenditures for broadcasting stations, but arrangements have been made over the years for leasing short-wave transmitters under preferential arrangements from the United States, Switzerland, France and Italy. News broadcasts are made once a week from these locations to various parts of the world. In addition, meetings of the General Assembly and of the Security Council are broadcast live over transmitters leased from the United States.

17. The above broadcasts are supplemented by air shipments of recorded programme material on tape or disc which are made available to about 1,000 radio stations in 130 countries. To assist in carrying out these information activities, the UN Office of Public Information has over fifty field offices (information centres) in various parts of the world. In addition, press releases are handed out at UN Headquarters to the various news services which make UN information available to newspapers around the world.

18. The traffic handled over the UN point-to-point system is restricted to United Nations business. This restriction is related to Resolution No. 26 of the Plenipotentiary Conference of the International Telecommunications Union of Buenos Aires (1952), based on a request by the UN that the ITU should sanction the use of the UN network by the specialized agencies. This Resolution provided that the UN point-to-point network should not be used by the specialized agencies under normal circumstances "in competition with existing commercial telecommunications networks". As a result, effective 1 January 1954, the Secretary-General of the UN withdrew his offer to carry traffic of the specialized agencies over the UN network. This Resolution was reaffirmed by ITU at its Conference in Montreux in 1965.

19. Although the above restriction applies to the "regular" business of the specialized agencies, it does not apply to messages of specialized agencies concerning (e.g.) UNDP or WFP which are considered United Nations business. For example, of the traffic over the UN network originating in Geneva in 1971, 1,545,980 words were sent by the UN itself; 4,200,050 words, or more than twice as much, were sent by specialized agencies on UN matters. Of this total for specialized agencies, 1,404,000 words were sent by FAO Headquarters via Geneva, representing 70% of all FAO Headquarters traffic in 1971. By way of contrast, WHO Headquarters sent less than 5% of its total traffic in 1971 over the UN network via Geneva.

20. Since the late 1940's, there has been a dramatic expansion and improvement in the public and commercial communications systems. It is now possible to simply dial a telephone number not only within many countries but between a growing number of countries. Instead of having telegrams delivered by a boy on a bicycle, you can subscribe to a telex service, dial a number in your office, and send your telegram to the recipient's office in over a hundred countries around the world at much lower cost than regular telegrams. Within the very near future, it will be possible to send such messages by satellite in the majority of the countries of the world. Letters formerly sent by ship or train now go by jet-powered aeroplanes. Of the 22 destinations for UN mail pouches from Geneva, 17 can now be reached by aeroplane in one day, and the other five destinations within two days if the most direct flights are used. Daily flights are replacing once a week schedules.

21. Expenditures by various members of the UN family on the different means of communications in response to a special request by this Inspector are indicated in the following table. These data should be used with great caution. They indicate only "orders of magnitude", and may not be comparable between agencies because of a lack of uniform categories of accounts. Data for the United Nations are particularly deficient because the expenditures for the UN network for cable traffic are scattered among various accounts only part of which are shown in the table. On the other hand, a substantial part of the costs of cables shown in the table for UNDP represent reimbursements made to the UN for use of its network. Thus there appears to be some "double counting" between the UN and UNDP data. Finally, some data reflect special situations such as the free transmission of much of the ITU traffic by public telecommunications systems. It is clear that we will never have really meaningful comparative cost data on communications of the UN family until "object classification budgets" are replaced by programme or performance budgets, and a more uniform classification

Table I

COMMUNICATIONS COSTS (TWO-YEAR PERIOD 1971-72)

Organization	Postal services $	Telephones $	Cables and telegrams $	Freight $	Total $	Percentage total budgets 1971-72 [1]
UN [2]	1,568,900	1,336,400	579,700	473,000	3,958,000	1.16
UNCTAD	106,000	53,500	74,000	12,500	246,000	1.12
UNIDO	185,000	119,000	152,000	30,000	486,000	1.92
HCR	54,000	139,000		12,000	205,000	2.05
Int. Court of Justice	6,500	3,000	2,500	-	12,000	0.39
UNDP [3]	724,000	385,000	961,000	37,200	2,107,200	3.15
FAO	1,275,035	281,577	424,703 [4]	181,947	2,163,262	2.32
ILO [5]	460,888	123,954	109,001	112,600	806,443	1.19
UNESCO	460,000	278,000	180,000	104,000	1,022,000	1.01
WHO [7]	764,000	248,400	129,300	6/	1,141,700	0.65
ITU	28,207	27,034	3,677	6/	58,918	0.32
IAEA	164,500	126,500	13,300	144,700	449,000	1.47
ICAO	191,000	116,500	29,900	124,600	462,000	2.21
IMCO	52,600	35,800	12,300	7,300	108,000	3.16
UPU	34,884	27,686	4,930	1,348	68,848	1.45
WMO	112,945	66,283	103,896	16,774	299,898	3.38

1/ Budget references:

- for UN, UNCTAD, UNIDO, HCR, International Court of Justice: document A/8406
- for UNDP: document DP/L.200
- for specialized agencies: document A/8538

2/ Headquarters, Geneva Office, Economic Commissions, Information Centres.

3/ The 1972 budget estimates have been multiplied by two as no comparable figures could be found in the 1971 budget.

4/ Includes approximately $30,000 per year for cables sent over the UN network.

5/ Information supplied for the years 1970 and 1971.

6/ ITU and WHO neither budget nor account for freight charges separately.

7/ WHO Headquarters only.

22. The background sketched above points to the following major items for consideration in this study:

(a) Internal organization for communications. Mail pouches, airmail letters, telegrams, and long-distance telephone calls are becoming more and more competitive as alternative means of communication. Should the decision as to which mode of communication is to be used in a given situation be left to the individual employee of an agency as in the past? The correct decision varies by country, and by the scope and content of the communication. How can specialized knowledge be brought into the decision-making process in an organized way? This and related matters such as cost control will be discussed in Chapter II.

(b) Organization of the UN family for communications. Has the present UN telecommunications network justified itself? What changes should be considered? Are integrated pouch services always justified in cities with more than one UN organization? Are the present organizational arrangements adequate for meeting the communications requirements of various forms of emergency situations? These questions will be explored in Chapter III.

(c) The mail. What policies should be adopted regarding the alternatives of mail pouch, regular airmail letters, and "express" airmail letters? Should pouch schedules reflect alternative costs of telegrams and long-distance telephone calls? Are there practical ways of stimulating more use of letters as opposed to telegrams? What can be done to increase the reliability of pouches? Such questions will be examined in Chapter IV.

(d) Telegrams. Should more use be made of leased telex circuits? Should more controls be placed over the use of telegrams through expanded use of "telegraph-type" letters? What are the implications of commercial satellites for day-to-day communications by telegram? Should future communications planning include provision for data transmission circuits? Such questions will be explored in Chapter V.

(e) Telephones. What has been the experience of the UN family in trying to control the use of the telephone? Do records of telephone calls indicate an important need for "instantaneous communication" by high UN officials to trouble spots around the world? Such questions are discussed in Chapter VI.

(f) Emergencies and UN communications. What are the communications requirements of the UN family in the event of emergencies? Is it important to distinguish between disaster relief and peacekeeping activities? What use can or should be made of the UNDP Resident Representative and his communications potential? What evidence is there that the present communications facilities available to the UN for emergencies are inadequate? Can justification be made for using communications satellites? For what purposes? See discussion in Chapter VII.

(g) Information Activities. Has experience shown that the UN can rely on the international news services for dissemination of UN news around the world? If not, are there practical alternatives? Should or can the present live broadcasts of meetings of the General Assembly and the Security Council be extended beyond North America? Or is a more practical alternative an accelerated distribution of tapes and discs to other parts of the world? These and related questions are examined in Chapter VIII.

Chapter II

INTERNAL ORGANIZATION AND MANAGEMENT OF COMMUNICATIONS

A. Background

23. It is a frustrating experience trying to inspect such UN activities as its own communications network, its internal printing facilities, or its computer facilities. A very substantial part of the expenditure for such activities is buried in other accounts. Such activities are looked upon as in effect "free" by many users to the extent that they do not involve specific expenditures out of their own division or departmental budgets. As a result, there is inevitably a wasteful use of such resources. The UN budget includes misleading figures often grossly understating the true costs of these activities, and they are presented in a way that defies meaningful analysis by the ACABQ and the Fifth Committee of the General Assembly. Until a shift is made from a UN "object classification" budget to a performance or programme budget, it is difficult to see how these activities will be brought fully under rational financial control. Certain specific changes in budgetary practice for communications are suggested later in this chapter that in effect represent a move towards programme budgeting.

24. There has been a tendency in the past to "take communications for granted" - to locate the pouch room, the telephone switchboard, and the telex machines in remote parts of the building; to treat these units as separate and almost unrelated activities; and to staff them with comparatively low-level personnel who very seldom see their chiefs. More recently, there has been a trend in some parts of the UN family to bring these activities more closely together, and to assign higher level personnel a more active supervisory role.

25. The lack of careful attention to communications in the past can probably be explained as follows:

(a) Nearly everyone I talked to during this inspection felt that communications were not a serious limiting factor in his organization's operations. If an official was not pleased with the pouch service, for example, he could always make more use of telegrams or the telephone or airmail letters. At least one of the alternatives open to him worked reasonably well for a given communications need;

(b) UN officials generally felt that they had more important things to do than to engage in unpleasant and time-consuming tasks such as eliminating unnecessary words in a draft telegram, enforcing rules for making more use of airmail letters, or scolding a subordinate for talking too long on the telephone to New York;

(c) UN officials were not particularly concerned about keeping the costs of communications at a minimum because such costs are treated as common services, and are usually not translated into rigidly enforced quotas for individual departmental budgets. Also, if telegrams for UNDP matters over the UN network are involved, UNDP usually pays such bills without positive budgetary restrictions on executing agencies.

26. A review of opportunities to strengthen UN communications suggests that certain fundamental improvements can be realized if appropriate steps are taken to improve the internal organizational arrangements for this service. The bases for this conclusion are spelled out below.

B. Key Considerations affecting Organization of Communications

27. For a world-wide organization such as the United Nations, the problem of determining the best means of communicating a given message to or contacting country X should no longer be left entirely to the individual employee. Organizational arrangements must be made to bring specialized knowledge into the decision-making process.

28. For example, if the telex circuit to a country is not automatic, it may sometimes take hours or more than a day to make connections with the desired party in that country. The same may be true of the telephone service. If there are no cable or satellite circuits to a country - only HF radio - long distance telephone reception tends to be poor, and primary reliance may have to be placed on telegrams. The postal system may be excellent in a country, including distribution to the various cities within its borders, thus opening the door to using express airmail letters in place of the infrequent mail pouch. Or the local postal system may be poor, with losses of incoming and outgoing letters running as high as 25 per cent (based on a report from such a country by a UNDP Resident Representative). In some cases, a three minute telephone call to another country costs less than a 50 word telegram, or three minutes use of the telex. For many other countries the reverse is true. In some cases the telex is even cheaper than letters. Examples of comparative costs picked at random are shown in Tables II, III, and IV (excluding rental of equipment and staff costs).

Table II

LONDON TO GENEVA (IN $)

Mode of Dispatch	25 words	50 words	Remarks
By ordinary telegram	3.26	6.53	
By telegram (LT)	1.63	3.26	
By telex	0.10	0.21	7.5 seconds for $0.0261
By airmail	0.13	0.13	For registration or express fee add $0.52
By telephone (station to station)		1.41	3-minute call minimum charge
By telephone (person to person)		2.35	" " " " " " "

Table III

LONDON TO USA (IN $)

Mode of Dispatch	25 words	50 words	Remarks
By ordinary telegram	4.57	9.14	
By telegram (LT)	3.59	5.72	
By telex	5.87	5.87	3-minutes minimum $5.87
By telex through Geneva	1.10	2.21	7.5 seconds for $0.0261 plus Geneva charges to New York $0.04 per word
By airmail	0.20	0.20	For registration or express fee add $0.52
	3-minutes call minimum charge		
By telephone (station to station)		5.87	
By telephone (person to person)		10.44	

Table IV

PARIS TO VARIOUS COUNTRIES (IN $)

Country	Telephone-3 minutes Person to Person	Telegram-40 words NLT	Telex-3 minutes (about 120 words)
Peru	13.16	16.40	9.99
New York	13.38	6.00	2.52 (1 minute)
India	10.01	9.60	9.99
Cuba	16.66	10.80	9.99
Japan	13.16	16.40	9.99
UK	0.31 (1 minute)	3.60	0.30 (1 minute)
USSR	5.38	4.80	1.69
Australia	13.10	14.00	13.33

29. Over the years, the various members of the UN family have accumulated such specialized information about alternative means of communication to various countries around the world, but this knowledge is usually in the minds of certain employees, and has not been committed to paper or organized in a form that will provide guidance to users of communications elsewhere in the organization.

30. The situation described above suggests the desirability of one supervisory office responsible for the mail room, the telecommunications centre or its equivalent, and the telephone service. This office would accumulate communications data by country in usable form for employees, recommend communications policies to higher authority, provide expert advice for a specific communication when requested, and monitor communications activities of the organization.

31. Some of the smaller UN specialized agencies indicated that their volume of communications with many countries was too small to provide a solid basis for determining an appropriate policy for communicating with such countries. The hope was expressed by several UN officials that, if and when some of the larger agencies had accumulated data on the communications situation in many countries, they might have access to it to supplement their more restricted information. Even for these smaller agencies, however, it is suggested that the mail room, telephone service, and telegraph activities should all be placed under one supervisory office. Only in this way will the maximum opportunities be available for improving the service and cutting costs.

32. A detailed communications picture for many countries around the world, assembled by these central supervisory offices, could also be used as a guide for setting priorities for development assistance. UNDP Headquarters, as well as ITU and UPU, should be interested in data helping to identify the countries most in need of improved communications.

33. Although the establishment of a central supervisory office will open the door to a number of improvements, such action does not fully come to grips with the problem of holding down communications costs. A number of officials told me that their Directors-General threatened to cut the budgets of some of their units unless they held down the volume of long distance telephone calls and cables, but that they had never carried out their threats as yet. As a result, the cost of communications has been rising each year faster than the budget as a whole. I checked on one of the large specialized Agencies and found that the communications budget increased more than <u>twice</u> as fast as the total budget during the past three or four years.

34. It is doubtful if proper restraint will be achieved in the use of telegrams and long distance telephone calls unless the heads of the different operating units are held responsible for living within a specific quota for communications expenditure. Members of the UN family typically establish such quotas as part of the budget process but seldom enforce them. A notable exception is ILO which has been forced to exercise severe fiscal restraints across the board during the past two years. FAO appeared to be moving in the direction of meaningful communications expenditure quotas when I visited its Headquarters recently. These two Agencies, however, tended to be the exception.

35. The most serious lack of communications cost control appears to exist with reference to UNDP expenditures. After lengthy discussions with officials of executing agencies, it is my view that this situation is largely due to two factors:

(a) UNDP Headquarters pays UN Headquarters direct for telegrams on UNDP matters sent over the UN network by executing agencies, so the agencies feel no positive fiscal restraints in sending such telegrams;

(b) There is a very deep-rooted conviction, volunteered by almost everyone I talked to on this matter, that "if you don't send a telegram, you will never get an answer from UNDP Headquarters. Letters are a waste of time".

36. It is my view that the first step in bringing communications costs for UNDP matters under control is to stop separate payment by UNDP Headquarters to the UN network for telegrams by executing agencies for UNDP. In other words, future UNDP payments to executing agencies for "overhead" would be understood to include all communications expenditures of the agencies' Headquarters for UNDP matters.

37. More specifically, it is proposed that in the future the executing agencies for UNDP would pay UN Headquarters for the cost of telegrams sent over the UN network. This change might or might not be accompanied by an increase in the percentage reimbursement by the UNDP to executing agencies for "overhead", since this is a negotiated figure that is not based strictly on cost data. Also, the monetary impact of this proposal on the budgets of executing agencies will be much less than might have been expected because of the planned reduction in charges per word for messages sent over the UN network in the future. The key point is to obtain some budgetary restraint on the volume of traffic over the UN network.

Chapter III

ORGANIZATION OF THE UN FAMILY FOR COMMUNICATIONS

A. Background

38. There has been talk of a UN family world-wide telecommunications network since 1946. When this subject was raised with UN officials during this study, the quick response usually was "a UN network for the whole UN family is not possible because of the objections of ITU". In other words, these officials were thinking of Resolution 26 discussed in Chapter I which restricts the use of the present UN network to UN business. It was also emphasized that in any event the present UN financial situation is such that there is no hope of financing an expanded and modernized UN network for use by the whole UN family in the near future.

39. In recent years the UN network has lost some of its support within the UN family. There have been strong and continuing complaints about copies of telegrams sent over the network being widely distributed in UN Headquarters in New York and Geneva for UNDP traffic. This situation has contributed to a policy of specialized agencies subscribing to separate telex services. Also, messages can now be sent more cheaply through these telex services than over parts of the UN network, a situation that is forcing a reconsideration of the network price structure ($0.04 a word between New York and Geneva, and $0.07 a word between Geneva and the rest of the network), and has led to the signing of a contract for a leased telex channel between New York and Geneva that can be used by all members of the UN family. Finally, the equipment of the network is becoming obsolete, and needs to be modernized to improve the quality of the services, particularly in two respects: radio transmitters whose transmission frequency can be changed by turning a knob rather than through a 24-hour overhaul job, and rotating antennae in place of fixed antennae (the antenna used to transmit to Rawalpindi is actually aimed at Karachi).

40. On the other hand, there is strong continuing support for an independent UN network by certain individuals who feel that complete reliance cannot be placed on a public and commercial communications system, because in the event of an emergency the public system might become temporarily inoperative, or the transmission of UN messages might be delayed for political reasons.

41. There is very little in this chapter that is not also included somewhere in the remaining chapters. The objective was to assemble in one place a summary of the information, ideas, etc., included elsewhere which appeared to be relevant to a discussion of the extent to which the UN family should join together in communications activities, or go their separate ways.

B. Discussion

42. A close look at the situation underlying the attitudes summarized above suggests that the following considerations are important:

(a) the volume of telegraph traffic between New York and Geneva, and between Geneva and Rome and Paris, has probably reached the point where the present New York-Geneva network should be replaced by leased telex channels connecting New York, Geneva, Rome and perhaps Paris. These leased channels would be cheaper than the present UN network, would provide higher quality reception (cable or satellite) between New York and Geneva, and would not be subject to the restrictions of ITU Resolution 26. (Since this study was initiated, agreement was reached on a leased channel between New York and Geneva which became effective on 3 August 1972);

(b) the volume of telegraph traffic on the UN network between Geneva and Nicosia and Jerusalem and probably Rawalpindi does not appear to be large enough to justify a leased telex channel, even allowing for the increased traffic because the restriction clauses of Resolution 26 would not apply to a public-system leased channel. However, cost data compiled for me by WHO suggest that the cost of a regular telex service would be somewhat less than the present UN network east of Geneva. (WHO does not use the UN network for UNDP messages sent east of Geneva.) On the other hand, unless the telex channels were fully "automatic", it is recognized that messages could be sent more promptly over the UN network and would be sent on a 24-hour basis;

(c) a dramatic expansion has been made in recent years in public and commercial telecommunication systems, and more are in prospect. Only about 15 countries out of 140 still lack international telex services. By the end of 1974, most countries will have access to earth stations operating via commercial satellites. The quality of transmission is also improving rapidly through a continuing shift from HF radio transmission to transmission by cable and satellite, and through expanding use of "automatic" equipment. It seems fair to state that the point has been reached where there simply is no justification for considering a UN family world-wide network for day-to-day operations, except in terms of the joint use of leased telex circuits in heavy traffic areas;

(d) it is the strongly held view of senior UN officials in New York that independent UN communications facilities must be available for peacekeeping missions. Accordingly, if and when UN facilities of the present UN network are replaced by telex service, those UN facilities should be maintained on a standby basis for immediate use in the event of future political crises in that area justifying the use of UN facilities. It is noted that the UN network covers at least most of the areas of the world where, based on experience since World War II, UN involvement in peacekeeping activities is most likely to occur;

(e) national disasters in sparsely settled areas do create the need for emergency communications. The League of Red Cross Societies is usually the "first one on the scene", and has a number of mobile receiver transmitters for keeping contact with Headquarters. The UN will probably play a more important role in the future in assisting disaster relief operations in collaboration with other relief organizations, and should take full advantage of the Office of the UNDP Resident Representative in pursuing such activities. Results of a questionnaire sent to each Representative - (about 80 per cent replied) - indicated that about 70 per cent of those replying could serve as a "relay" point for forwarding messages from the disaster area to Geneva and New York if they had the necessary short wave equipment. Of those who expressed doubts, several were located in downtown office buildings and did not think they would be allowed to install antennae on the roof. Others foresaw great difficulties in getting a licence. A few Representatives indicated that their countries had no telex service; it is noted that within two years, 90 per cent of those replying expected to have telex service in their offices or have access to the telex facilities of another part of the UN. (See Chapter VII for further discussion of these matters);

(f) since there are no restrictions on an integrated mail pouch service for the whole UN family in cities with two or more UN organizations such integrated services are found in cities like Geneva and New York. Such services are not very popular, and much use is made of airmail services instead of the pouch to those countries with reliable mail service. IMCO and UNIC in London did have an integrated service, but recently decided to go their separate ways. It seems that unless the organization handling the service is of considerable size, it will not have the necessary facilities to collect and distribute the mail, particularly in a big city with traffic congestion.

C. Conclusions

43. The above considerations suggest the following general guidelines for joint communications planning by members of the UN family:

(a) for day-to-day operations, attention should be focused on making better use of public and commercial systems by each member of the UN family, not on building a UN family network, except in those cases where the combined volume of traffic justifies leased telex channels for joint use;

(b) the present UN network running east of Geneva to Korea should be studied to determine if at least part of this network should be replaced by telex services, particularly in those cases where channels are available that are fully automatic: the UN equipment would be maintained on a standby basis for possible future emergencies;

(c) a stock of SSB (single side band) radio equipment which is simple to operate should be strategically located around the world for use in UNDP Resident Representatives' Offices and in the field in the event of serious natural disasters or peacekeeping-type emergencies. Advance agreements would be reached wherever possible with local governments to bring the equipment in quickly without a lengthy border clearance in the event of an emergency. Plans for using such equipment should be designed to eliminate the need for far more expensive mobile earth stations;

(d) advance arrangements should be made for use of emergency satellite channels in the event the United Nations should again be involved in a "Congo" type operation, i.e. priority would be given to UN peacekeeping communications ;

(e) arrangements should be made for an exchange service for address lists for printed material. More specifically, an interesting by-product of the free distribution and sale of documents and publications by the various members of the UN family is a list of addresses which may be useful to other members. Some lists are in card files. Others will soon be stored in computers. For example, UNIC in London has names on Addressograph Plates as follows, covering UK and the Netherlands:

Categories	No. of plates
Press, Parliamentarians and UNA Executive	495
Press, Parliamentarians, Universities, etc.	988
Press, radio/television	62
Population Newsletter to journals and societies	24
Status of Women Newsletter	37
Development Decade distribution list	109
Press, radio/television, and Government departments	34
Economic Development list	34
List for UN Chronicle	63
Industry, power/radio/television, for pre-investment news	536
Narcotics information for medical societies and journals	19
Radio broadcast sheets	15
Human Environment list	161
Apartheid list	125

Potential uses of such lists by other parts of the UN family are obvious.

44. The above suggested general guidelines are supplemented by more detailed discussion of the various means of communication in the following chapters.

Chapter IV

THE MAIL

45. A programme for improving the different parts of the communications systems of the UN family should start with the mail (defined in this chapter as airmail letters and the mail pouch), for three reasons. First, most communications are sent by mail. Second, letters are usually cheaper than telegrams and telephone calls. Third, any action programme by management to reduce excessive use of telegrams and long-distance telephone calls through increased use of the pouch and airmail letters is necessarily based on the assumption that the mail is a reliable and economical alternative means of communication. Thus it is important first to determine reasonable standards of performance for mail delivery as a bench mark in evaluating the use of telegrams and the telephone and then to adopt the necessary administrative controls to achieve these standards.

A. Elapsed time, Pouch Room to Pouch Room

46. In preliminary discussions with UN officials in Geneva, it soon became clear that there was a serious lack of confidence in the UN mail pouch. For example, one of the specialized agencies was sending its urgent letters to New York through the regular postal service, and the other letters through the pouch. Some officials in the Palais des Nations were adopting the same policy for their own urgent official mail. It was also emphasized that the unreliability of the UN pouch was a major factor in the extensive use of telegrams.

47. In view of the unfavourable attitudes toward the UN mail pouch, particularly to New York, I made a study of the integrated UN mail pouch service located in the Palais des Nations in Geneva. The first step was to go to the travel agency of the UN, and find out what the elapsed time would be between Geneva and the 22 mail pouch destinations if the most direct flights were used. I was advised that the elapsed time for 17 destinations would not exceed one day, and that the remaining five destinations would not exceed two days. However, the present routing placed nine destinations on a one-day schedule, five on a two-day schedule, five on a three-day schedule, two on a four-day schedule, and two on a five-day schedule. Furthermore, of these schedules, there is only one pouch a week for twelve schedules, two pouches a week for two schedules, three pouches a week for five schedules, four pouches a week for one schedule, and five pouches a week for two schedules.

48. Although the increased speed and frequency of air flights is reaching the point where the pouch and airmail are becoming more and more competitive with telegrams in terms of time in transit, it is clear from the above data that UN pouch schedules are not designed to take advantage of the increased efficiency of the aeroplane. Is there a fundamental error in the design of the pouch schedule?

49. The pouch to Cairo was selected for more intensive study. A pouch is sent to Beirut once a week, opened, and mail is forwarded to Damascus, Jordan and Cairo. The total time in transit from Geneva to Cairo is thus four days for the pouch, even though you can fly direct from Geneva to Cairo in a few hours. However, the minimum cost of a pouch direct to Cairo is $9. The average amount of mail sent to Cairo each week is far below the amount permitted in the minimum $9 charge. By merging the mail to Beirut, Damascus, Jordan and Cairo in one pouch to Beirut, I was told that the average pro-rata charge for Cairo mail in the pouch to Beirut was a little over $2 each week. The additional charge from Beirut to Cairo was less than 50¢ (apparently not including the pro-rata cost of an extra trip to the airport at Beirut). Thus by adding three days to the transit time to Cairo, the cost of the mail was reduced from $9 to less than $3, or to about 1/3 of the cost if the direct flight were used.

50. The above saving looks impressive, but is the calculation basically sound? If because of the long transit time for the pouch (which is sent only once a week), additional telegrams are sent and more long distance telephone calls are made each week, then this apparent $6 saving may be an illusion. It may be cheaper and more practical for at least some of the destinations to think in terms of more frequent mail pouches routed on the most direct flights for correspondence mail, which could take care of all but the most urgent communications.

51. For example, calculations made in Geneva indicate that the average telegram sent from New York has 75 words, and from Geneva about 50 words. Cost estimates made by WHO indicate that messages it sends to major destinations around the world through its telex service cost about five cents a word (regular PTT telegrams cost several times as much). Thus telegrams sent by telex from Geneva to places like Cairo might on the average cost 50 words x five cents a word or $2.50. If you could save just three telegrams a week through using the direct flight to Cairo, it would save money ($6 extra cost of mail bag versus $2.50 x three or $7.50 cost of three telegrams). A three minute telephone call from Geneva to Cairo costs about $10.00.

52. A complicating factor in this analysis is the comparative cost of preparing letters. Letters often are retyped one or more times, and stenographic help is expensive. This cost can be reduced through more use of "telegraph type" letters such as the Foodagram discussed later in this chapter, which requires no more typing than a telegram.

53. The Secretariat at UN Headquarters sent me an analysis of their routings of pouch destinations out of New York. The findings are summarized as follows:

"Of the 105 stations, 42 are reached by direct flights, 47 are transhipped and no direct flight available while 16 are transhipped but do have direct carriers to these locations."

"Direct carriers are not always used due to:

(a) better service of the smaller airline in most cases the flag carrier of the country of destination

(b) schedule reasons - only one or two flights weekly not fitting in with our needs

(c) a record of delay and mishandling by the direct carrier to these destinations."

54. I might add that most of the reports sent to me by UNDP Resident Representatives on their pouch service from New York were favourable.

55. An alternative to more frequent mail pouches routed by the most direct flights is the use of the public postal service. For example, the Universal Postal Union (UPU) has no mail pouches, but sends all of its letters by the regular postal service. This alternative is discussed in section B below.

56. A check was also made in Geneva and Rome to determine if the assumed elapsed time of pouches between destinations was being realized. For example, a study revealed that actual elapsed times of all pouches between Geneva and New York for a representative four months in 1971, which was supposed to be one day, was in some instances as high as nine days. A major cause of this highly unsatisfactory performance was the fact that mail bags were not routed on direct non-stop flights between Geneva and New York.

57. Action was taken in April 1972 to reschedule pouches to New York on direct flights, the beneficial results being shown in the following table:

Period I - January to 20 April 1972

Days in Transit	No. of Dispatches
1	14
2	22
3	4
4	1
6	1
8	1
12	1

Period II - 20 April to 10 July 1972

Days in Transit	No. of Dispatches
1	29
2	14
3	3
4	1

58. A similar check in Rome of the FAO pouch to New York revealed that direct flights were being used, and the control of transit time from the pouch room in New York was much more effective than between Geneva and New York. However, even though there were several direct flights each day from Rome to New York, the schedule provided for closing the pouch in the afternoon in Rome, putting the pouch on the plane late the next morning, and picking up the pouch so late in New York that afternoon that it was not opened in the pouch room in New York until the next morning. Thus the "pouch room to pouch room" time was two days, for an aeroplane that was "chasing the sun" from Rome to New York and arrived in New York only two or three hours (NY time) after leaving Rome. It seems clear that a brief study should indicate adjustments in handling the pouch to reduce this elapsed time to one day from Rome to NY pouch rooms.

59. In summary, it is concluded that (a) it is feasible to establish administrative controls to ensure one-day pouch room to pouch room elapsed time for mail pouches between Europe and New York; and (b) pouch schedules to developing countries should be reviewed to determine if in a number of cases more frequent, and more direct, schedules could be adopted, or more use should be made of the regular postal service for letters.

B. Pouches versus Airmail

60. The pouch is almost always used for bulk mail - printed matter - because it is much cheaper than parcel post. For correspondence, however, the choice often depends primarily on the speed of transmission.

61. An attempt was made to analyse the number of flights a week, and time in transit for postal deliveries from Switzerland, based on data supplied by the Swiss PTT. Of the 22 destinations for the pouch from Geneva, the post office sent mail by air five or more days a week for 17 destinations, and four days a week for the other five destinations. For 15 of the destinations a direct flight is used. For six destinations there is one change en route to another flight. For one destination in Europe the train is used. It seems clear that airmail letters will reach their destination sooner on the average than letters in the pouch, provided the postal system at the destination is reasonably efficient and secure. If it is not, this situation can often be overcome by renting PO boxes which can be emptied any time of the day.

62. If the local postal service is good, several UN agencies use "express" or "Special Delivery" airmail letters which cost three times as much as regular airmail but are delivered more quickly not only in the capital city but in outlying areas where many UN experts are located. Telegraph type letters are usually sent express. This express type of message was started in 1942 by the International Committee of the Red Cross (ICRC), and was reserved exclusively for prisoners of war and civilian internees. It was introduced in order to compensate for the shortcomings of the "POW post". The text of the message was limited to five lines.

63. In UN Headquarters, the pouch is considered the best channel for sending confidential messages, not only because it is more secure, but also because many confidential things can only be said properly in a letter - not in a telegram.

64. It is proposed that during the next two or three years the various members of ACC should make more extensive tests of the local postal services around the world, using express airmail, or ordinary airmail (and the cheaper aerograms now accepted by most Postal Administrations) and renting PO boxes. Copies of important correspondence would be sent by pouch as a "hedge" against lost mail. UNESCO has prepared a list of countries with satisfactory postal services for handling express airmail.

C. Pouches versus Air Freight

65. I received several strong complaints about poor mail service for urgently needed bulk items, which were investigated in some detail. The key explanation was found to be the use of air freight instead of the UN pouch for the shipment. Air freight is often much slower than the pouch for the following reasons:

(a) air freight is subject to check by customs officials. The pouch is not;

(b) air freight is often accumulated for several days in order to qualify for a lower freight rate;

(c) when the UN truck goes to Kennedy Airport to pick up the mail bags, the driver will call Headquarters to report any air freight received at an airline office, and such air freight is picked up by another truck perhaps a day or two later. Trucks for pouches never pick up air freight;

(d) when air freight arrives at the mail room, it usually does not receive the same priority treatment as pouches.

66. The most important corrective action indicated by the above analysis is to take the necessary steps to ensure that really urgent packages are put in the pouch - not sent by air freight. Involved are (a) written instructions regarding the use of pouches and air freight, (b) a greater awareness by the sender of bulk mail that he must mark really urgent packages appropriately if he wants quick service, and (c) a review of the procedures for air freight from a "performance" point of view. It is my impression that air freight has received much less attention and support than the pouch.

D. Use of Computers

67. Some members of the UN family may be exploring ways and means of using the computer for the mail service. Annex III is a summary of future plans for such a use by UNESCO.

E. Management Reports

68. All parts of the UN family have made some attempts to control costs, and maintain some cost records. However, these records are usually not analyzed regularly as a basis for any necessary action, but merely accumulate in the files for an occasional ad hoc review. In other words, routine management reports on communications, particularly from the standpoint of performance control as well as cost control, are almost non-existent. The pouch room and the telecommunications centre are usually located in obscure parts of the building, and their operations are more or less taken for granted. "Controls" have consisted largely of circulars sent out once or twice a year urging all hands to curtail the use of the telephone nd telegrams in favour of letters. Although the organization chart shows a solid line going up from the communications centre to a fairly senior official, the chances are that this official has no idea how many pouches were delayed the previous month, has no records showing how many long distance calls are being made by the employees "not on the list", has established no performance goals, and has not visited the mail room for a number of weeks.

69. Recently, the peaceful picture presented above has been rather rudely disturbed by "crash" programmes in several parts of the UN family designed to help meet the financial crisis caused particularly by the devaluation of the dollar, including actions to reduce the cost of communications. It is my observation, however, that there still are perhaps only two places in the UN family where, in the communications field, standards of performance have been established, instructions on what to do when something goes wrong have been put in writing, and routine management reports which are designed for action, not just for information, are forwarded to senior officials. Merely the knowledge that such reports are going to top management can have a beneficial effect on the efficiency of operations. If management was on its toes, you simply could not have a Geneva mail bag take eight or nine days to reach the pouch room in New York.

F. Incentives to use the Mail

70. By far the most common explanation for sending telegrams, when a letter would appear to be just as appropriate and much cheaper, is that the receiver feels more of a sense of urgency to answer a telegram than a letter. A study made for UNDP Headquarters in 1968 disclosed that the average time required for drafting a reply and signing a letter was eight days, and the comparable time for a telegram was five days. Some specialized agencies have tried to meet this problem by designing forms to be filled out like a telegram (for example, the Foodagram of FAO), but inserted in an envelope and mailed.

71. I question whether the longer time required to answer letters can be explained largely by this psychological aspect. Of perhaps equal importance is that letters tend to be used more frequently in those cases where more staff work was required as a basis for a reply, and where the matters raised were of lower priority and did not call for an immediate answer. In any event, I think the most practical way to popularize letters is to increase the speed and reliability of mail along the lines presented earlier in this chapter.

72. Some of the specialized agencies are increasingly impressed with the possibilities of the "telegram-type" letter such as the Foodagram of FAO as a means of reducing costs. For example, these brief messages required much less typing and retyping, and are easier to draft by UN employees who have to use their "second and third languages". As another example, UNESCO has established a central point where a decision is made as to whether messages written as a telegram will be sent as a telegram or as a "telegram-type" letter, thus providing a positive administrative control over excessive use of telegrams. It is also noted that when ILO was forced to make very serious reductions in its budget, the cut in the allotment for telegrams was almost immediately reflected in increased use of the ILO "telegram-type" letter.

73. Annex I is a copy of UNESCO's CABLE/UNESCOGRAM referred to in the above paragraph. Annex II is a very interesting summary of ILO's experience with its ILOGRAM.

74. The sharp increase in postal rates during the past year or two has caused considerable concern, particularly with respect to the cost of shipping documents and publications. It was suggested to me that the UPU should be urged to consider appealing to postal authorities to grant the franking privilege to members of the UN family. This and similar proposals arrived too late for discussion with UPU.

75. A consultant's report on communications made recently for FAO put great emphasis on the propensity of personnel to procrastinate in preparing a communication until it was considered necessary to telephone or send a telegram. It was noted, for example, that outgoing correspondence and messages always seemed to pile up on senior officials' desks for signature on a Friday afternoon. Thus, part of the answer may be a training or education programme to encourage personnel to plan their work so that letters can be used and still meet deadlines.

Chapter V

TELEGRAMS

A. Background

76. The UN network, extending from New York to Seoul, Korea, is a High Frequency (HF) radio system for telegraph only. High Frequency transmission is affected by propagation conditions in the ionosphere, which vary according to the hour of day and the season and also with the eleven-year cycle of sunspots. To ensure satisfactory operation, frequencies have to be chosen which are suitable for the propagation conditions over a given circuit at a given time. Even then there are occasional "magnetic storms" which can cause a complete blackout of HF radiocommunications for as long as four or five hours.

77. Applying these well-known facts to the UN network, the present system is handicapped because its transmitters at Geneva are not designed for rapid changes of frequency to suit propagation conditions. The frequency of modern HF transmitters can be changed by turning a knob. UN transmitters require about 24 hours to change frequencies. Also, the "rhombic" antennae used at Geneva are very poor, particularly the one used for transmission to Rawalpindi, which actually points at Karachi. I am advised that they should be replaced by rotatable "log-periodic" antennae.

78. The propagation problems described above can be avoided through transmission via submarine cables and land lines. Also, the propagation problem can be minimized by using Very High Frequency transmission (VHF). Unfortunately, VHF transmission is affected by the curvature of the earth, and cannot climb over mountains like HF transmission. This problem can be overcome by a "line-of-sight" transmission system, whereby a series of antennae are placed between the sending and receiving stations, and are located so that from the top of each antenna you can see the top of the next antenna. However, this system involves a lot of costly hardware and relay stations. An alternative means of getting around the curvature of the earth problem is to transmit via a satellite. Such transmission is almost as efficient as by cable, and avoids nearly all of the difficulties of HF transmission.

79. It should be emphasized, however, that an automatic telex service using modern HF transmitters is not an obsolete form of telecommunications for telegrams. The messages do get through. All the ships sailing around the world still use HF transmission to keep in touch with their home bases. The major incentive to use cables and satellites is to improve the quality of long distance telephone calls. Also, only satellites provide a practical means today for long distance transmission of television programmes over oceans.

80. In the course of this study, a contract was signed (3 August 1972) for a leased telex channel between New York and Geneva which would be available for the exclusive use of the UN family 24 hours a day, using a submarine cable and land line, and which will replace the present system between those two points. Transmission will be at 100 words a minute, or more than double the present speed, thus providing the needed additional capacity to meet the 10% annual growth of traffic in recent years. This contract had my full support, and its implementation will fully overcome the various technical limitations of the present UN system between New York and Geneva, as well as save money. This channel can be used by all members of the UN family, not just UN traffic permitted under ITU Resolution 26.

B. Modernizing the UN Network

81. How can the UN family best take advantage of modern telecommunications technology for its day-to-day operations? More specifically, what should be done now about the UN network between Geneva and Seoul?

82. A check would probably show that many, perhaps most, telegrams sent by the UN family today, which are not transmitted over the UN network, are transmitted over public and commercial systems via cables or satellites. Thus the UN family is today making good use of the most modern communications technology, except for messages sent over the UN network.

83. There appear to be several possibilities for modernizing the UN network between Geneva and Seoul, as follows:-

(a) replace worn out equipment. The draft UN budget for the next fiscal year includes provisions for a start in replacing worn out equipment of the UN network. This re-equipment programme will reduce maintenance costs and the likelihood of temporary breakdowns, will expand the capacity of the system at minimum capital cost, and will help to improve the quality of the transmission to the point where it is fully adequate for telegrams.

(b) replace the entire UN network with telex service. UN Headquarters is well aware of the fact that telex service is cheaper than the present UN charges over its network of four cents per word from New York to Geneva and seven cents per word from Geneva eastward. The old UN network is being "priced out of the market". The leased telex channel just put into operation between New York and Geneva provides a useful first step toward cutting costs and raising the quality of transmission under an arrangement open to all members of UN family. It should be followed immediately by a study to determine thebreak-even point for a leased circuit duplex system for daily routine traffic between the major concentrations of UN traffic. My preliminary review of current and potential traffic between various points on the UN network plus Rome and Paris indicates that the traffic between two or three points may already be approaching, or has reached, the break-even point. Also, the economies realized by the New York-Geneva channel

might subsidize a leased circuit to a centre in Europe below the break-even point, because of the economy and expediency of a fully automatized code-and-switching system tying all agency Headquarters together. When fully exploited, I am advised that a leased circuit duplex system for the main UN traffic centres might be designed with full consideration of the following:

(i) the establishment in these four or five centres of local switching and traffic-control stations allowing for coding of traffic to relevant receivers whether they are located in the same or different buildings;

(ii) the possibilities of attaching automatic copying (stencil or mimeograph) machines for facsimile communications through tape-transfer, in individual traffic control rooms;

(iii) the possible use of eight-level tape (Alphabet Five standard) for off-line computer input (comparable to mail but not to data on-line transmission);

(iv) the possible need of voice transmission or long distance 'phone communications within an inter-agency leased-circuit system.

(c) <u>seek free UN satellite channels</u>. By establishing its own UN network with transmission via satellites, the UN communications system would be less vulnerable to interference in transmitting UN messages from countries suffering from political disturbances. (For example, a country might temporarily suspend telex services during a political crisis.) Also, only satellites can be used for long distance television transmissions over oceans.

84. Of these three possibilities, it is proposed that alternative (b) be established as a medium term goal, but that the UN also proceed now with alternative (a) for those relay points of the network which are least likely to be replaced by leased telex arrangements or a regular telex service in the near future. At those points of the network where UN facilities are being replaced by telex such UN equipment would be maintained in a standby status for use in the event of an emergency involving the UN in that area. Alternative (b) is considered a far more practical and economical means of making full use of modern telecommunication technology than alternative (c) and makes it available on an integrated basis for the whole UN family and at minimum cost.

85. The question has been raised as to whether it makes sense to put UN communications equipment on a standby basis and pay out money for a leased telex channel or telex service, when you need approximately the same personnel to operate either telex or UN equipment. Such a question overlooks the very substantial annual cost of maintaining the present UN equipment; the cost of modernizing present UN equipment and expanding its capacity to meet the 10 per cent annual increase in traffic, which has been estimated at about $400,000; the rental costs in some locations; and other costs such as utilities. Cost/benefit studies would be necessary to identify those points in the network now qualifying for alternative (b). Obviously, such studies should be made before making a substantial investment in modernization of present equipment.

C. Traffic Statistics

86. The basic statistics on cable traffic handled by the Geneva Telecommunications Relay Centre for 1971 are presented in Annex V. The total volume has been increasing by an average of about 10 per cent annually in recent years.

87. It will be noted that the total number of words transmitted from Geneva to New York was nearly seven million, and the number of words transmitted from New York to Geneva was over five and a half million. This volume was found to be substantially in excess of that required to justify a leased telex channel between these two points.

88. Preliminary calculations suggest that traffic between Geneva and Rome is at or above the "break-even" point, and that consideration should be given to shifting from a telex subscriber service to a leased telex channel for UN traffic between these two points. Careful studies may disclose similar situations outside the geographic area covered by the UN network, particularly between Paris and Geneva.

89. The total number of words transmitted from Geneva to Rawalpindi was slightly over two million, and the number transmitted from Rawalpindi to Geneva was over 2,700,000. This volume is substantially in excess of that required to justify a leased telex channel within Europe, but probably not for the long distance between Geneva and Rawalpindi. If WHO, ILO, UNESCO and FAO sent over a UN-leased channel all their messages to South East Asia and beyond which now go through commercial channels, it would probably not have added much more than 300,000 words to the 1971 totals over the UN network between Geneva and Rawalpindi.

90. The telex leased channel rates beyond Europe are structured to provide for a lower cost if transmitted at half speed or quarter speed. It is also noted that a new commercial satellite has just been put in place above South East Asia so that the quality of telex services should go up sharply in the near future. I am not prepared to say that no modernization of the UN network running east of Geneva should be undertaken at this time, but I do feel that a hard look should be taken soon at the cost and feasibility of a leased telex channel to Rawalpindi, or preferably to New Delhi, in place of the present UN system.

91. A review of the cable traffic statistics received from various parts of the UN family did not reveal a concentration of traffic elsewhere in the world that would justify considering arrangements going beyong the individual telex subscriber service. (I have just learned that a leased telex channel from New York to Santiago, Chile, at the one-quarter speed rate is a definite possibility in the near future.)

D. Procedures for using Telex Service

92. If a decision is made, as recommended above, to move toward general use of the telex service, either on a subscriber or on a leased channel basis, attention is invited to several opportunities for strengthening procedures for using the telex service. For example, specialized agencies using the present UN network in their role as executing agents for UNDP, have complained very strongly about the propensity of the UN to distribute their cables very widely around UN Headquarters in New York and Geneva. With the signing of a contract for a leased telex channel between New York and Geneva, over which all traffic of the UN family could be routed, it will be even more important to reach more acceptable understandings between different parts of the UN family regarding the distribution of cables sent over leased telex channels.

93. If more extended use of the telex service is in prospect for the whole UN family, a family "telex book" comparable to a telephone book including the telex numbers of all parts of the UN family should be prepared and kept up to date.

94. WHO has designed a schedule for transmitting telex messages comparable to a mail pouch schedule, and has inserted it in its loose-leaf telephone book for ready reference. It is recommended for consideration by other parts of the UN family (see attached copy of WHO schedule identified as Annex IV). ILO advises that it has already put this suggestion into effect.

E. Data Transmission

95. The installation of the UN Computer Centre in Geneva has raised the question as to whether there should be a transmission of data - particularly from New York - through telecommunications circuits that feed directly into the computer. I discussed this possibility with a number of knowledgeable officials in the UN family in Europe, and was advised that the nature of UN activities involving the computer in their agencies were such that the cost of such a data transmission circuit could not be justified. A practice of putting the data on tapes and mailing them to the Computer Centre was quite satisfactory and much cheaper. The most positive confirmation I received of this judgement from outside the UN was from United States officials in Paris, who reported that they had been collecting data by mail since 1959 for their computer in Paris, and continued to believe that the extra cost of data transmission to their computer by a telecommunications circuit was not justified.

96. A review of the situation in New York disclosed a number of new considerations. The Administrator of UNDP had committed himself some time ago to fully support the Computer Centre in Geneva (ICC), and a large volume of UNDP data has been regularly mailed to the ICC in Geneva for inclusion in the memory bank, and for processing and return to New York. Apparently the handling of the data by ICC has been very satisfactory so far, but I was advised of unfortunate delays in shipping the data back to New York by air freight. UN officials reviewed this situation and identified important opportunities for improvement. It is anticipated that future delays in shipments of data to New York will be minimal.

97. There are however some broader considerations that go beyond the scope of this report, which I will merely attempt to identify for review by others. Both UN Headquarters in New York and Geneva have sufficient computer capacity to handle the UNDP data now being processed by ICC in Geneva. The original idea was for UNDP and the various UNDP executing agencies in Europe to make joint use of the ICC for their mutual benefit. Only part of the executing agencies in Europe have committed themselves so far. If this stalemate continues, should UNDP reconsider whether to process its data in Geneva or in New York, the location not receiving its business being converted to a "real time" basis to save money? Before any decision is made about data transmissions, it seems clear that a prior determination must be made as to just what future use is to be made of the two UN computer centres both of which have a large amount of excess capacity.

98. I am also advised that users of data transmission facilities in the United States are still experiencing technical difficulties, the amount depending in part on whether the information is sent "on line" or "off line". At least one informed individual urged that the UN should proceed cautiously in this matter, and perhaps wait two or three years until the "bugs" have been largely eliminated from this system.

Chapter VI

THE TELEPHONE

A. Background

99. Recent technological developments have been particularly helpful in improving the quality of long distance telephone calls. The expanded use of submarine cables has made possible top quality service to many areas. Voice transmission via satellite - soon to be available in most countries - has been particularly important to many countries formerly dependent on HF radio with its limitations for voice transmission.

100. Although long distance calls are becoming a much more efficient means of communication in developing countries, particularly where direct dialling is possible, the quality of telephone service in some of the cities of developed countries is probably not as good as several years ago. I heard many complaints about the time required to put through long distance calls in Europe.

101. A comparison of the cost of long distance telephone calls, telegrams, and telex messages indicates that telephone calls are competitive in cost with these alternative means of communication, and are often cheaper, It is not correct just to compare the cost of a three minute telephone call with the cost of (e.g.) a telex message. One telephone call may take care of both the message to the destination and the answer. If a telegram or telex message is sent, usually there has to be a reply, so often it is necessary to compare the cost of one telephone call with two or more telegrams or telex messages.

102. Long distance telephone calls are becoming more and more feasible on a world-wide basis, and are not as expensive as commonly supposed. Also, there is something about a telephone call that achieves a rapport between the two parties that cannot be realized with a telegram or even a letter. However, the telephone does have certain major inherent weaknesses. Both parties must be able to speak the same language, and be available at the same time to complete the call - a definite limitation on east-west transmission when office hours may overlap for only a short time during the day. In addition, a person in Geneva may call an official in New York without any advance notice, on a matter on which the latter has not been briefed, so the call may not be very productive. Copies of letters and telegrams can be readily sent to other interested parties, but not copies of telephone calls. Finally, since there is usually no written record of a telephone call, misunderstandings as to what was said or agreed upon are more likely to occur.

B. General Telephone Policy

103. It is my impression that most members of the UN family look upon long distance telephone calls as a very expensive means of communication that should be used only for the most urgent situations, and usually only by senior officials. Also, the idea still seems to persist in some quarters that top UN officials should have available "instant communication" with any part of the world, particularly in the event of a serious emergency.

104. Based on the findings in this study, a sound telephone policy for the future would appear to encompass the following:

(a) a long distance call should be looked upon as an alternative means of communication, to be judged on its merits - not as a luxury form of communication available only to top officials;

(b) long distance calls are particularly subject to abuse, and their use should receive close scrutiny;

(c) information should be assembled by countries to identify those places where long distance calls are comparatively cheap, or are much more efficient than non-automatic telegraph communications;

(d) special arrangements such as "hot lines" to certain top UN Member State officials are not required by the Secretary-General's office or elsewhere in the UN family.

C. Administrative Controls

105. As noted above, telephone calls are vulnerable to abuse. A private call is reported as an official call. A call that should have been completed in three or four minutes took more than twice as much time. A long distance call was made on a non-urgent matter that could have been covered just as well in a letter. Several calls were made during a week - all on a person-to-person basis, that could have been handled primarily on a station-to-station basis through advance arrangements - and so on.

106. Within the UN family I found two approaches to the problem of controlling long distance calls, as follows:

Alternative I: List of names authorized to make calls. A limited list of senior officials would be authorized to make long distance calls. Subordinates of officials on this list could make such calls if approved by their superiors. Records of all long distance calls would be assembled at a later date when available from the telephone company, reviewed and certified by those individuals on the approved list, and forwarded to the appropriate administrative official with ultimate responsibility for such matters.

Alternative II: Check immediately after call. All long distance calls must be made through the switchboard operator. There is no list of persons authorized to make such calls. However, immediately after a call is made, the switchboard operator fills out a form providing essential data on the call, and forwards it to the administrative officer of the division where the caller is located. After review in whatever depth is considered necessary, the record of the call is forwarded to the administrative official with ultimate responsibility for such matters.

107. A review of telephone records indicated that Alternative I did not work very well. In some cases more than half of the persons making long distance calls were not on the "list". The telephone operator was not in a good position to challenge an employee who said he was calling in the name of Mr. X who was on the list. The formal review of the completed calls did not occur until all of the records from the telephone company were received many weeks later - a rather meaningless review.

108. Alternative II seemed to work better. No employee felt like a "second class citizen" because he was not on the list. The making of a long distance call was not looked upon as a special privilege of the few, but a means of communication open to anyone and selected on its merits. Since everyone knew that a check would be made immediately after the call was completed to determine if it were properly classified as personal or official, was justified, and completed at reasonable cost, abuse of long distance calls appeared to be minimized. The telephone operator was not put in an untenable position of trying to "police" the action of a much higher ranking official placing the call, but merely recorded information on the call on a prescribed form.

109. While in Paris I checked on the practice of the Embassies of one of the largest UN Member States, and was advised that Alternative II was used. It is obvious that there could be a number of variations of Alternatives I and II. In terms of the general approach, however, I am persuaded by the findings in this study that Alternative II is to be preferred.

D. Leased Telephone Channels

110. The contract recently signed for a leased telex channel between New York and Geneva costs $60,000 annually. For about $150,000 annually, this contract could be expanded to include voice and data transmission. A cost/benefit study is under consideration in New York for purposes of determining if such a contract could be justified in the near future. I think such a study should be made, but have strong reservations about data transmission for the immediate future for reasons set forth in Chapter V.

E. Local Calls

111. Attempts to control local telephone calls have been largely abandoned by most parts of the UN family. Each agency seems to have passed through the following stages:

(a) it is noted that the number and cost of local calls has risen sharply during the past two or three years; and secretaries spend too much time on the telephone talking to friends, particularly when their chief is out of the office;

(b) part of the telephones are "blocked" so that no calls can be made on them outside the building. Secretaries and others find out which telephones are not blocked, and line up to use them when the chief is away, thus leaving their office uncovered with no-cne there to answer the telephone;

(c) consideration is given to blocking more telephones, and extra public pay telephones are installed in the building. The problem of uncovered telephones when the chief is away becomes worse; and the local staff association complains that attempts to control local calls is hurting staff morale, is discriminatory, and often prevents urgent personal calls from being made;

(d) as more sophisticated telephones are installed it becomes technically more difficult if not impossible to "block" the secretary's telephone without blocking the chief's telephone. Personnel officials become convinced that the whole effort to control local calls is "not worth it", and the control of local calls is quietly dropped.

112. After listening to the experiences of several agencies trying to control local telephone calls, I am not prepared to quarrel with those who say "it is not worth it".

F. Use of Computers

113. Annex VI presents an example of use of the computer in connection with the control of telephone expenditure.

Chapter VII

UN COMMUNICATIONS FOR EMERGENCIES

A. Background

114. Most discussions of UN communications since 1945 have been from the standpoint of emergencies, particularly of a political nature. The general thrust of the discussion has been that the United Nations cannot place complete reliance on public or commercial communications systems, but must have its own communications facilities for emergencies. In recent years the discussion has revolved primarily around the request of the UN Secretary-General for free channels on commercial satellites.

115. Because most UN officials concerned with emergencies are totally dedicated to the idea that the UN must have independent communications facilities, the documents and reports on this subject are focused almost entirely on the kind of UN network required for emergencies, with little or no analysis of the availability and adequacy of public or commercial communications for such purposes. It is particularly difficult to find any well-documented case studies of past emergencies involving the UN which describe communications problems encountered in the field, and thus provide guidance for future planning.

116. The present UN telecommunications network was created to meet communications problems resulting from its emergency peacekeeping activities in the Middle East, Kashmir, and Korea in the late 1940's and early 1950's. This network is still in existence.

117. The UN has not played a prominent role in the past in assisting in the event of natural disasters. The League of Red Cross Societies has been the first on the scene with its mobile world-wide communications network, and the UN has been just one of many volunteer groups and governmental organizations helping with follow-up relief and rehabilitation activities. In recent months there has been established in Geneva the UN Disaster Relief Office to spearhead the future disaster relief activities of the UN family.

118. Although peacekeeping and disaster relief activities have typically been lumped together in discussions of UN emergency communications requirements, a major conclusion of this report is that these two kinds of emergency activities must be treated separately. The basis for this conclusion follows.

B. Disaster Relief

119. In contrast with UN "peacekeeping activities", which may last for many years in a given area, UN disaster relief programmes will normally last for a comparatively short period. Emergency communications for such programmes may be required for only a few days or at most several weeks before regular public or commercial facilities are fully restored. Furthermore, it is in the interest of the local government to assist in communicating quickly to the outside world the country's relief needs, so the possibility of government restrictions on UN communications would appear to be very remote. Thus in planning for UN disaster relief activities the UN should not stress the need for "independent" emergency communications facilities, but should seek the closest collaboration with the local government in anticipating such communications needs.

120. If meaningful planning for UN communications for disaster relief is to be achieved, something needs to be done about the management of such relief. Experience indicates that complete reliance cannot be placed on the local Red Cross Society or its equivalent for a disaster of any magnitude. The local government has got to organize itself to assume overall responsibility for disasters. The initial step would probably be to establish a Disaster Relief Committee whose membership would include the local UNDP Resident Representative, and a representative of the International Red Cross during an amergency. This Committee would supervise the necessary pre-disaster relief planning, would be responsible on a co-ordinated basis for making an assessment of relief required when disaster strikes (rather than having different groups announcing highly conflicting needs), and would provide overall supervision of relief operations. The ultimate objective would be to develop that administrative infrastructure necessary to enable disaster-prone countries to handle emergencies with a minimum of outside assistance.

121. In Geneva, something must be done beyond having a meeting of some of the prospective donqrs once a month. The donors themselves, particularly governments of wealthy Member States, should have a formally established focal point in their organization to handle contributions for various kinds of emergencies. Arrangements would be made in advance for acceptance of leadership from Geneva (presumably the International Red Cross and the UN Disaster Relief Office working together), for determining quickly the contributions to be made by each donor, which are consistent with the assessments of the situation made by the Disaster Relief Committee in the country suffering the disaster.

122. The above proposals are consistent with the preliminary thinking of the new UN Disaster Relief Office in Geneva. Three communications needs are indicated: first, between the disaster area and the Disaster Relief Committee, second, between this Committee and Geneva, third, between Geneva and the various donors.

(a) Communications between Geneva and donors. A review of the present state of public and commercial telecommunications facilities indicates that no difficulties should be encountered in communicating between Geneva and the donors (most of whom have headquarters or representation in Geneva).

(b) Communications between Geneva and country suffering from disaster. The International Red Cross has a number of mobile receiver transmitters using voice that provide communications between its representatives in the disaster area and Geneva. In some cases a relay station has been set up between the disaster area and Geneva. These facilities have provided communications from all parts of the world, but usually for only part of a day when propagation conditions are comparatively favourable. Also, they are not tied in with the capital city. If the local government, in collaboration with the UN and the International Red Cross,

is to provide the leadership in directing disaster relief operations, what is required is not just communications from the disaster area direct to Geneva, but also to a local Disaster Relief Committee in the capital city, and then on to Geneva. I think that communications on disaster relief matters between the capital city and the UN Disaster Relief Office in Geneva should be handled by the Office of the UNDP Resident Representative. Based on information received on questionnaires sent to all UNDP Resident Representatives (about an 80 per cent response), within a year or two 90 per cent of the Resident Representatives' Offices will have telex facilities, or access to telex facilities of another part of the UN. A check with ITU indicated that in those countries still without telex facilities, adequate communications with Geneva were available in a neighbouring country. Thus it seems reasonable to conclude that every Resident Representative's Office can and should be held responsible for determining in the near future those steps (if any) required to ensure that his office could serve as a relay point to communicate with Geneva in the event of a disaster.

(c) Communications between disaster area and capital city The local Disaster Relief Committee proposed above would determine if there would probably be adequate local facilities for emergency communication to the capital city from a disaster area, or whether such facilities would have to be brought in from outside the country. For those countries that would require emergency equipment to be brought in from the outside, two important steps should be taken by this Committee. First, advance government clearance for importation of such equipment by the UN and the Red Cross should be obtained so there would be no delay in unloading this equipment at the airport during an emergency. Second, if the Resident Representative's Office is not an appropriate place for installing a receiver transmitter for contact with the disaster area (four Resident Representatives report that an antenna could not be installed on top of their office building), then the Committee should arrange for another location in case of need.

123. The UN Headquarters in New York has had the necessary experience to know what would be the most appropriate emergency receiver transmitters for installation in the Resident Representative's Office and in the disaster area in the event of emergencies, and would store such equipment at strategic points around the world. Presumably they would be single side band (SSB) radio receiver transmitters of simple design for voice transmission, requiring little skill to operate and appropriate both for disaster relief and peacekeeping activities (discussed later in this chapter).

124. An alternative solution would be the acquisition of one or more mobile earth stations. ITU has been developing some standard specifications for transportable communications equipment, and in response to a request from the UN Secretariat, published some interesting suggestions in an unofficial ITU document on a mobile earth station with related equipment for use in disaster relief operations.

125. It is suggested that procurement of one or more mobile earth stations should not be seriously considered in the near future for disaster relief purposes, for the following reasons:

(a) in view of the precarious financial position of the United Nations at this time, the comparatively high cost of a mobile earth station cannot be justified when cheaper, reasonably efficient mobile transmitters are available;

(b) in any event, the mobile earth station could only be used in those countries that require importation of emergency equipment in the event of a disaster, and that are located in that part of the world covered by a commercial satellite. Within a year or two, almost all such countries will have access to one or more permanent earth stations, and the probabilities are high that the earth station was not located in the specific disaster area. Thus such a permanent earth station could be used through a tie-in with inexpensive mobile transmitters in the disaster area;

(c) when available, submarine and land cables provide even higher quality transmission than satellite;

(d) in view of the many alternative channels of communications during the critical first few days of a natural disaster (Red Cross mobile transmitter, UN SSB radio transmitter proposed above, Embassies, ships in harbour, public or commercial systems still operating), the chances of losing contact with Geneva are small. All of those contacted with actual field experience during a disaster indicated that with a little initiative, alternative channels could always be found. Complaints about poor transmission leading to misunderstandings were actually due in many cases to language problems or disagreements on priorities, not poor quality transmission. Under such circumstances, a mobile earth station becomes a luxury.

126. The limited UN funds that might be used for such emergency communication facilities would be restricted to the acquisition and storing of SSB equipment and related items.

C. Peacekeeping Activities

127. It is my understanding that the Secretary-General himself, and his senior associates concerned with peacekeeping activities, feel strongly that for overriding political reasons, the United Nations must have its own communications facilities for such purposes. The essence of peacekeeping is the complete impartiality of the Secretary-General, an objective which, I am told, cannot be fully realized if reliance must be placed on the communications facilities of a Member State. It would be highly inappropriate for a United Nations Inspector to question the political judgement of top United Nations officials. The following discussion is limited to some of the practical problems created by this political judgement, as disclosed during the course of this study.

128. To avoid misunderstandings, the term "peacekeeping activities" needs to be defined rather precisely. In discussing emergency communications needs, senior officials in New York seem to be thinking primarily about UN peacekeeping operations, namely UN peacekeeping forces and "UN Observation Missions". However, peacekeeping activities might also include fact-finding missions and special representatives of the Secretary-General. This broader definition will be used in this chapter.

129. In contrast with disaster relief programmes, United Nations peacekeeping activities are often carried out in a hostile atmosphere, or under circumstances where there are sharply conflicting views as to the true situation in the area. For example, suppose political tensions reach the point where friendly relationships are disrupted between two or more countries, and the Security Council is called into session. The countries on different sides of the dispute are reporting sharply differing versions of what happened and who is to blame. Newspaper reporters may be presenting still other views. The Security Council looks to the Secretary-General to provide it with trustworthy information on the true situation on a daily basis. The Secretary-General usually has no alternative but to send one or more trusted persons to the countries involved to seek out the truth and keep the Secretary-General informed through secure and reliable channels. The possibility always exists that one or more of the countries involved may interfere with attempts to contact New York over the public or commercial communications system; and that strong objections may be made by various Member States if telegrams are sent through an Embassy or a ship in the harbour, particularly if the Embassy or ship flies the flag of a country known to favour one side or the other.

130. As another example, let us assume that a ceasefire has been achieved between two or more countries, and United Nations observers are stationed in the ceasefire sector. Regular public or commercial communications are often inadequate in such sectors, and the observers must have good internal communications to keep in touch with each other on a secure basis, as well as an external channel for reporting regularly to United Nations Headquarters. Such channels may be required for many years.

131. If the Office of the Resident Representative was in a position to handle United Nations communications for disaster relief as proposed earlier in this chapter, it might be assumed that it could also handle communications for peacekeeping operations unless stopped by the local government. In some situations this might be acceptable to all parties concerned. However, there is a widespread feeling that it would be most unfortunate if a Resident Representative became involved in such highly politically oriented matters as peacekeeping, and the probability that alternative channels would be required in some future situations must be included in United Nations communications planning. The same conclusion would appear to be justified for the United Nations Information Centres.

132. It seems clear that United Nations peacekeeping operations must have their own internal communications system. Thus the question boils down to whether it is feasible to provide fact-finding and peacekeeping missions and United Nations peacekeeping forces with independent communications facilities for keeping in touch with New York Headquarters.

133. Enquiries regarding the files in United Nations Headquarters on peacekeeping operations reveal that almost nothing has been written regarding communications problems encountered in such activities. United Nations officials involved in such activities at the policy level almost take it for granted that the United Nations must have its own communication facilities for peacekeeping. It is pointed out that the need for independent facilities was recognized by the General Assembly many years ago when the present United Nations network was authorized in response to UN activities such as those in the Middle East and Kashmir. Such points of view, however, are not buttressed by hard facts drawn from carefully documented case studies of United Nations experience with peacekeeping operations.

134. In the absence of hard facts, the following observations and questions are offered for consideration:

(a) By far the most important resource the United Nations requires to meet present and future emergency communications needs is a trained, dedicated staff. The operation of the UN network over a period of many years has produced such a staff. Since approximately the same personnel will be required for the present UN network and for telex facilities, the modernization of the network for day-to-day operations as proposed in Chapter V will not adversely affect the availability of this staff for future peacekeeping communications needs.

(b) The UN not only has and will continue to have the necessary staff to meet peacekeeping communications requirements, but it already has UN communications equipment in operation or in standby condition in those parts of the world where experience indicates that UN peacekeeping activities are most likely to be needed. Thus the problem of getting permission to use fairly long range transmitters in these areas will not arise, the principal problem being to install a small transmitter if necessary to reach the nearest point on the UN network. If equipment in the area is replaced by telex facilities for day-to-day operations, it would be put on a standby basis and thus remain available for immediate use as necessary for present and future peacekeeping missions.

(c) Although the situation may be regarded as "under control" for those areas most likely to have UN peacekeeping activities in the future, the UN must also have a capability for installation of emergency communications facilities in areas outside the UN network, if required. It seems reasonable to assume that the necessary staff will be available. Also, provision has already been made for getting permission to bring such facilities into a country. For example, no UN peacekeeping missions are sent into a country unless invited. Before accepting an invitation, one of the conditions insisted upon by the UN is permission to bring in its own communications equipment. This provision may be necessary because of the lack of operable communications facilities within the country. Insistence on this provision is also motivated by UN experience which indicates that occasionally UN peacekeeping missions relying on public communications systems encountered slowdowns and delays in sending their messages which resulted in an inability to carry out their activities efficiently, and even in political or military advantages to the local government. Similar interferences did not seem to occur when the UN had its own communications facilities within the country, except in unusual circumstances such as the June 1967 hostilities in the Middle East when the UN Communications Centre was repeatedly overrun and was thus inoperable for a period of time.

(d) I am advised that if a fact-finding mission, for example, encounters delays in using the public PTT system for contacting New York, and appropriate UN facilities are not available, it is politically inadvisable for top United Nations officials to use the facilities of an Embassy or a ship in the harbour even if the message is coded. It is easy to visualize a situation where such a policy means that the mission simply cannot contact United Nations Headquarters on a timely basis.

(e) Those who favour the modernization and expansion of the United Nations own network almost always stress the need for "instant communications" by top United Nations officials in the event of emergencies. A review of a representative list of telephone calls for several members of the United Nations family disclosed very limited use of long distance calls at the Director-General level. The Director-General of one of the largest specialized agencies stated that he had almost no need for emergency long distance calls, and volunteered the observation that he called the Director-General of one of the other large specialized agencies on the telephone "about once every six months". It is also noted that it is not customary for Heads of State to call each other on the telephone. Similarly, if the Secretary-General of the United Nations has urgent business with a Member State, the customary procedure is to get in touch with the head of that country's Mission to the United Nations in New York. (A review of his telephone calls for a representative period supports this observation.)

D. Conclusions

135. The analysis in this chapter points to certain broad conclusions, particularly from the standpoint of financial planning, as follows:

(a) It is too early to know whether the proposed greatly expanded role of the UN in disaster relief activities will actually materialize. It is also noted that pre-disaster planning and post-disaster rehabilitation activities will not involve any unusual communication requirements. Only the critical disaster period itself is of significance for this study.

(b) In anticipation of a potential major UN coordination role during the critical disaster period, plans should be made to rely on the Office of the UNDP Resident Representative for communications between the UN Disaster Relief Office in Geneva and the country suffering from a disaster. A few SSB receiver transmitters should be stored at strategic locations for use by the Resident Representatives if necessary to supplement the mobile transmitters of the League of Red Cross Societies. Such procurement should be on a very limited scale during the next year or two until the future disaster relief role of the UN becomes clearer.

(c) Experience indicates that UN observer missions and peacekeeping forces must (and do) have their own internal communications. UN facilities are now available to these missions for external communications with Headquarters in New York. The modernization programme for the UN network as proposed in Chapter V would continue to make UN facilities available if necessary to the observer missions. It is suggested, however, that present and future UN observer missions would use the UN network whether the equipment involved was UN or telex, UN equipment always being available on a standby basis if needed during critical periods. UN staff would be available to operate either UN or telex facilities. In anticipation of a possible large "Congo-type" operation in the future, communications priorities should be assigned to UN peacekeeping operations.

(d) For other kinds of peacekeeping activities, namely by fact-finding missions and special representatives of the Secretary-General, it is proposed that a flexible policy be adopted regarding communications requirements. In some cases, no arrangements would be made for bringing independent communications facilities into the country because of the shortness of the visit, quality of local facilities, probable friendly atmosphere, existence of UN standby facilities in the country, etc. In other cases, the probable local situation and urgent need to keep in closest touch with Headquarters might clearly dictate the need to bring in mobile communications equipment.

Chapter VIII

INFORMATION ACTIVITIES

A. Background

136. Although in the late 1940's the General Assembly emphasized the need to keep all Member States informed about UN activities, the UN Secretariat has been labouring under rather severe restraints in attempting to meet this objective. Money was never made available for a world-wide UN broadcasting system. In various ways Member States have made it clear that they do not want the UN to be in a position to send news direct to their people with little or no control by the local governments. Furthermore, in many of the developing countries only a small percentage of the people read newspapers or have access to radio news broadcasts.

137. Under the circumstances presented above, almost complete reliance for quick dissemination of UN spot news around the world is placed on the news media, particularly the "big five" international news services with headquarters in UK, USA, USSR and France. Although there are about 105 information media from all parts of the world with offices in the UN Headquarters, most of these offices are staffed not by a representative from the country whose name is on the door, but by local individuals in New York who are paid a certain amount by this country for each news item with special local interest.

138. News releases, documents and publications are also made available to the UN missions of Member States which are located in New York City. However, most of these Missions are not in a position to serve as an efficient distribution channel for such UN material to their home governments, and about fifty UN Information Centres have been established around the world for such purposes. These Centres receive their information by pouch and air freight, and thus cannot compete with the news services located in UN Headquarters in New York and Geneva for rapid dissemination of current items of major interest.

139. The United Nations Office of Public Information (OPI) also broadcasts news once a week to all parts of the world in 17 languages, using short wave transmitters leased under preferential arrangements from the United States, Switzerland, France, and Italy. These transmissions are rebroadcast by local radio stations. Only what the latter will re-transmit gets through to the people. These weekly broadcasts in a given language for a specific area vary in length from five minutes to fifteen minutes, with a few broadcasts of thirty minutes. Live broadcasts are also made of the proceedings of the General Assembly and the Security Council in English, French and Spanish to Europe, Latin America, most of Africa, and parts of the Middle East, over transmitters leased from the United States. The reception quality of these broadcasts is very uneven, depending upon the distance from the transmitters and the intensity of ionosphere disturbances.

140. The UN Office of Public Information attempts to overcome the limitations of short wave broadcasts with air shipments of recorded programme material on tapes or discs to approximately 130 countries for broadcasts over about 1,000 radio stations. When used locally such programme material has the great merit of reliable broadcast quality, but suffers from the delay of several days to a week before being available for broadcasting.

141. There is also live television coverage of some of the General Assembly and Security Council sessions of the UN. The extent to which such service is used by television stations depends entirely upon the customers. In other words, this service at present has to be "self-sustaining", which means in practice that only such transmissions can be made for which television stations are willing to defray costs. Most broadcasts have been made in North America. The number of such satellite transmissions from New York, paid by the television stations abroad, are shown in the following table:

Year	Total Number	Transmission to Japan	Europe	Developing Countries
1965	5	-	5	-
1966	12	1	10	1
1967	56	3	53	-
1968	20	1	19	-
1969	18	-	17	1
1970	20	1	17	2
1971	24	4	17	3
Totals	155	10	138	7

142. It will be noted that very few live television broadcasts have been made to developing countries. They cannot afford these very expensive broadcasts, and many have no earth stations.

B. Discussion

143. Visits to a number of UN Information Centres during the past four years as an Inspector disclosed a general acceptance of the view that the international news services were very efficient in the dissemination of spot news around the world, and the UN Information Centres should not attempt to compete with them. During the course of this study of communications, however, I have heard two objections to primary reliance on the international news services. First, I have been told by several informed people in some detail about "slanted" reporting of UN news.

For example, when there is a debate in the Security Council, only the remarks of those on one side of the debate are reported; or remarks of a speaker are condensed in a way that reverses his intended meaning. Permanent Missions of Member States in New York are given the full texts, and UN Information Centres in the field are urged to contact news media when they find erroneous or misleading reporting. Some UN officials would like to establish UN news channels to Member States to present balanced news stories, but I am advised that many, perhaps all Member States seem to prefer a situation in which the UN does not have a direct channel of information to the people of their own country, since it is assumed that it would be easier to exercise control over the news media than over the UN. Also, I am advised that the total OPI budget would not cover 15 per cent of the cost of one of the big five international news services.

144. The second objection I have heard about the news media is that they tend to select news items of particular interest to industrialized countries. For example a study (not yet completed) by UNITAR indicated that the developed countries were particularly interested in political and security questions, problems of international finance, nuclear proliferation, and the environment; whereas the developing countries were more interested in economic, health, labour, agricultural and trade questions. Recently a Centre for Economic and Social Information was established in OPI to try to strengthen the dissemination of the kind of information of most interest to the developing countries.

145. I do not recall hearing either of these criticisms of the international news services emphasized while visiting developing countries, but I was not exploring OPI activities in depth. It is noted that the full press releases of the UN and documents of unusual interest are available to the UN Missions of all Member States in New York, for transmission by diplomatic pouch to their governments. Furthermore, all this printed material is available at the UN Information Centres in various parts of the world; and tapes and discs of the General Assembly and Security Council proceedings are disseminated to over 130 countries and territories for rebroadcasting. It seems to me that the Office of Public Information has made a very commendable effort to ensure that the full story of what is happening in the UN Headquarters is available to all Member States on a timely basis, within the limits of the very considerable restraints on its activities.

146. If the script of recorded programme material for news broadcasts could be sent to Member States by cable rather than by air freight, it would be available on a more current basis. However, the cost of such cables would probably be prohibitive except over a leased telex channel. For example, if the volume of UN traffic between two points is such that it required two or three hours for transmittal on the average each day, then it may be cheaper to lease a telex channel for this traffic, which can be used a full 24 hours a day at no extra cost to the lessee. Thus as the UN expands its use of leased telex channels during the next few years, the recorded programme material for news broadcasts could be sent over these channels during the slack time of the 24 hour period for operations traffic.

147. The present UN live television coverage is mostly limited to North America. There has been some discussion of the need to extend this coverage to other parts of the world to supplement the present air freight shipments of UN films and kinescope material. Interest in this possibility has been stimulated in recent years by the gradual shift from newspapers and radio to television as the principal channel in developed countries for dissemination of news, and by the development of commercial satellites which provide a means of transmitting live television telecasts over long distances including spanning the oceans. I have discussed this matter with various officials in Europe and New York, during which the following key points were made:

(a) UN news is not too well adapted to television. The usual routine is for the TV announcer to read a few terse news bulletins; and then in order to exploit fully its audio-visual character, to reserve most of its repetorial output for events which can be shown on a television screen. Unfortunately, most of the newsworthy events reported in connection with the UN take place at its Headquarters, in New York and Geneva.

(b) The costs of such broadcasts outside North America, which at present must be paid for by the user, would be extremely high. The programmes would have to be tailored to the cultures and attitudes of each part of the world, involving heavy personnel costs in various locations. Furthermore, the use of live or up-to-date television reportage for transmission overseas involves very complex and expensive arrangements for satellite transmission or expedited transport of films, video tapes and the like by jet planes. Very few countries have television companies that can afford such outlays except on special occasions.

(c) If subsidized by the UN, objections would be raised in many countries to such competing broadcasts by the UN.

(d) Under present conditions, the most practical things to do are (i) to put much more emphasis on developing radio and television programmes tailored to the cultures and attitudes of different parts of the world, and (ii) to make a more determined effort to persuade more radio and television stations in Member States to make regular use of UN tapes, films, etc., sent to their country by air freight. No really concentrated efforts have been made so far in these directions.

C. Conclusions

(a) On the surface, the world today appears to be saturated with information about the activities of the UN. Channels for such information include (i) over 100 information media in New York Headquarters plus a substantial number in Geneva; (ii) UN Missions of Member States in New York and Geneva which are overwhelmed with documents and publications; (iii) representatives of Member States at large numbers of UN meetings, seminars, etc. (There were over 4,000 meetings last year in Geneva); (iv) over fifty UN Information Centres; (v) free distribution of all UN publications to about 1,500 addressees around the world; (vi) UN broadcasts, and distribution of tapes and films to Member States for use by 1,000 radio stations, etc. However, the quality and objectivity of news broadcasts reaching the people sometimes leave something to be desired, and unfortunately most people in many developing countries are not reached at all because they cannot read newspapers or do not have access to radios;

(b) As the UN expands its use of leased telex channels, consideration should be given to sending the script for news broadcasts by such telex channels during the slack time of the 24 hour period for operations traffic, instead of by air freight;

(c) Although technological developments may greatly reduce the costs of live television telecasts via satellites in the future, efforts to expand broadcasts of UN programmes during the next few years will probably have to be limited to persuading more radio and television stations in Member States, particularly developed countries, to make regular use of UN tapes and films which are now sent to their country by air freight.

Annex I

Unesco form 242 (III. 72)

ORGANISATION DES NATIONS UNIES POUR L'ÉDUCATION, LA SCIENCE ET LA CULTURE
UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION

TÉLÉGRAMME / UNESCOGRAMME
CABLE / UNESCOGRAM

Place de Fontenoy
75 700 Paris, France

Téléphone 566-57-57
Télégraphe Unesco Paris
TELEX : 27602 Paris

A : (Nom et adresse télégraphique) / *To : (Name and cable address)*

Date :

Référence * (à insérer par Registry) / *Reference * (for insertion by Registry)*

Texte et signature / *Text and signature*

A nom et adresse complète / *To : name and full address*

* Prière de citer cette référence dans votre réponse

* *Please cite this reference in your reply.*

Le numéro de référence sera fixé par la Division du Courrier La partie figurant sous le pointillé ne sera pas transmise

OBJET (s'il ne ressort pas clairement du texte)

MODE D'EXPÉDITION PROPOSÉ (peut être modifié par la Division du Courrier). Voir Appendice 9 B du Manuel.

LES TÉLÉGRAMMES SONT TRÈS COUTEUX : LEUR USAGE N'EST JUSTIFIE QU'EN CAS D'EXTRÊME URGENCE

☐ **Unescogramme (express par avion)** ☐ **Télégramme (fournir justification ci-dessous)**

Budget - cocher la case appropriée ☐ ORD ☐ UNDP

Rédigé par
(Nom dactylographié)

Departement Signature

Approuvé par
Signature du Directeur du Département d'origine

Visas (sur l'original seulement)
Département Signature

COPIES à distribuer pour information

Annex II

ILO EXPERIENCE OF THE ILOGRAM AS A COMMUNICATION DEVICE

1. The ILOGRAM was adopted in 1966. It is in effect an airmail express (special delivery) letter designed to attract attention to its urgency and thus have an effect similar to that of a telegram but at a much lower cost. It is based on a similar method already in use by UNESCO 1/ and WHO.

2. The considerations which led to adoption of the ILOGRAM have turned out in practice to be sound and justified.

3. Its use has steadily increased, as shown by the following figures 2/:

Year	No. of ILOGRAMS Dispatched from ILO Headquarters
1966	-
1967	3,580
1968	5,920
1969	6,823
1970	9,758
1971	14,322

and prevented the use of telegrams from increasing in proportion to increased ILO activity:

Year	No. of Telegraphic Messages Dispatched from ILO Headquarters
1966	11,652
1967	10,157
1968	11,125
1969	12,312
1970	10,561
1971	6,548

1/ UNESCO goes a step further by placing on the dispatch room the responsibility of deciding whether a message should be sent as a UNESCOGRAM or as a telegram, taking into account any wish expressed by the unit of origin. Complaints about the decision taken are said to be not more than two or three a year.

2/ From August 1970 other restrictions on the use of telegrams played their part; see paragraph 7 below.

4. It was noticed that telegrams were being sent in cases in which an airmail express letter would reach the destination in time to permit action to be taken as quickly as with a telegram. The clearest example of this was the uselessness of sending telegrams from Geneva to New York on a Friday when they could not be dealt with until offices re-open on Monday - by which time an airmail express letter would arrive. The same consideration applies to Western European and North African destinations. Furthermore, an ILOGRAM distributed by special delivery may for some of the latter destinations reach the addressee even more quickly than a night letter (ELT or LT) telegram, which is distributed with the ordinary mail.

5. The instructions on ILOGRAMS call for telegraphic style. This denotes urgency and reduces drafting time and eliminates unnecessary words. Letters, on the other hand, call for careful drafting especially when official correspondence with governments and others is involved but they also raise questions of forms of address, closing formulae and signature which also represent a call on the time of the officials and secretaries involved. The ILOGRAM, consequently, acts as a time-saving device.

6. ILO field units also use the ILOGRAM to an increasing extent; just as telegrams would appear to have a kind of snowball effect in the sense that officials are inclined to reply to a telegram with another telegram without reflecting whether telegraphic speed is called for, so will the same officials be inclined to reply to an ILOGRAM with an ILOGRAM and thus avoid the expense of a telegram.

7. The use of the ILOGRAM in the ILO has continued to increase in recent months because of the more severe restrictions imposed on the use of telegrams. It is to be hoped that the acquired habit of using ILOGRAMS in the place of telegrams has come to stay.

8. Originally the ILOGRAM was sent in a red-bordered envelope bearing the mention "ILOGRAM". When it was found that this caused puzzlement in certain countries these envelopes were no longer used. ILOGRAMS are now sent in an ordinary airmail express cover.

9. There are certain countries which do not operate express (special delivery) arrangements. In countries where these arrangements work well it is preferable for the ILOGRAM to be addressed so that it is delivered to the office concerned by use of the street address unless that office states that it prefers other arrangements such as daily clearance of a PO box.

10. An instance of considerable economy worth mentioning is that of reminders to governments who, for example, have not replied to some circular letter asking them to supply information or observations by a certain date. Formerly a series of reminder telegrams were sent. The cable charges for a typical series was Sw F 2,775 as compared with something like Sw F 140 when the same series of reminders is sent by ILOGRAM.

Annex III

COMPUTERIZED UNESCO MAILING SYSTEM

The Mailing System is divided into four different parts:

1. Subscription Subsystem
2. Obligatory Subsystem
3. Departmental Subsystem
4. Philatelic Subsystem

The four subsystems are distinct and are used for distinct purposes.

1. The Subscription Subsystem

The Subscription Subsystem deals solely with the distribution of periodical magazines produced by UNESCO and distributed on payment of a subscription fee.

It should be noted that:

(i) there are ten different periodicals,

(ii) there are about 250,000 recipients who receive periodicals of the same or different type in different languages, in a different number of copies and by different means of postage.

The system includes:

(a) the creation and maintenance of lists of names and addresses;

(b) the printing of names and addresses on labels for despatch;

(c) the printing of reminder cards for subscriptions that are near to the expiry date;

(d) the production of labels with details of recipients who subscribe through a UNESCO agent;

(e) the production of labels with details of recipients who should receive back issues of a periodical;

(f) the production of a gift card to be sent to a recipient when his periodical has been paid by a donor;

(g) the production of printed listings of the mailing list;

(h) the printing of statistical listings.

2. The Obligatory Subsystem

The Obligatory Mailing Subsystem deals solely with free distribution of all types of UNESCO publications, documents and periodicals according to established rules. Recipients receive literature of different type in differing quantities, in differing languages and in differing postage types.

The system includes:

(a) the creation and maintenance of lists of names and addresses;

(b) the printing of names and addresses on labels for despatch purposes;

(c) the production of printed listings giving details of all recipients in the Obligatory Subsystem;

(d) the production of statistical listing.

3. The Departmental Subsystem

The Departmental Mailing Subsystem deals solely with the despatch of UNESCO literature which is controlled by the various departments within UNESCO.

It should be noted that there are about 65,000 recipients who receive different types of literature in differing quantities, in differing languages and in differing postage types.

The system includes:

(a) the creation and maintenance of lists of names and addresses;

(b) the printing of labels giving details of selected recipients from these lists;

(c) the production of printed cards containing details of each new addition to the lists to be used for filing and reference purposes.

4. The Philatelic Subsystem

The Philatelic lists are used for the despatch of stamps and philatelic information distributed by UNESCO.

The system includes:

(a) creation and maintenance of lists of names and addresses;

(b) printing of labels for despatch purposes;

(c) production of a printed list containing details of each recipient to be used for filing and reference purposes.

Actually, the Philatelic Subsystem which deals with 6,000 recipients is operational.

The Subscription Subsystem is tested in parallel with a real file of 5,000 addresses, and its technical feasibility should be established by the end of 1972. If as may well be the case the cost proves to be less than under the present method, the Subsystem will go into operation as soon as possible. It may however not be in full operation until 1975 owing to the problem of financing the establishment of a complete master file and the acquisition of ancillary equipment.

For the other subsystems - Obligatory and Departmental - the programming work is started.

It should be noted that during the design of the Mailing System the foundations were laid for creating, at a future date, a UNESCO Target Audience Data Bank Service. The Data Bank would contain the names and addresses of persons and institutions that UNESCO may wish to contact.

Each Person (or institution) would be classified completely so that correspondence of a specific type would be able to be sent to certain recipients by means of selecting the names and addresses of those recipients from Data Bank.

Annex IV

WHO DIRECT TELEX TRANSMISSION SCHEDULE

(valid until further notice)

"Cables" for addresses indicated below are normally dispatched by direct Telex. If messages are to be dispatched on the same day, they should reach Mailing shortly before deadline times to allow tapes to be prepared in advance of the call. Messages received after deadline times will be transmitted on the next working day.

Destination and difference in time	Latest deadline time in Mailing	Local time of receipt at destination
UNISANTE ALEXANDRIA One hour ahead HQ	One transmission daily at 1030	Same time, same day
UNISANTE BRAZZAVILLE Same time as HQ	*One transmission daily at 1100	Same time, same day
UNISANTE COPENHAGEN Same time as HQ	Immediate transmission up to 1800	About 10 minutes after
UNDEVPRO KINSHASA (LEOPOLDSVILLE) Same time as HQ	Transmitted via UN Telecommunication up to 1800	About two or so hours after receipt in Mailing
UNISANTE MANILA Seven hours ahead HQ	*Up to 1800 for daily transmission next morning at about 0900	About 1600, same day
WORLDHELTH NEW DELHI Five hours ahead HQ	*Up to 1800 for daily transmission next morning at about 0830	About 1300, same day
UNISANTE NEW YORK Six hours behind HQ	Immediate transmission from 1500 Geneva time	About 10 minutes after receipt in Mailing
OFSANPAN WASHINGTON Six hours behind HQ	Immediate transmission from 1500 Geneva time	About 10 minutes after receipt in Mailing

*On Friday afternoons weekend transmissions are made as follows:

UNISANTE ALEXANDRIA	at 1700
UNISANTE BRAZZAVILLE	at 1715
UNISANTE MANILA	at 1730
WORLDHELTH NEW DELHI	at 1700

Messages having Telex addresses for destinations other than the above are taped on receipt and transmitted immediately. They are usually with the addressees in about ten minutes after receipt in Mailing.

CABLES: Cables should reach Mailing not later than 1745 hours.
For further information, please call Ext. 2034.

15.9.71. Revised page to be inserted in the telephone directory

Annex V

ANALYSES OF CABLE TRAFFIC HANDLED BY THE GENEVA TELECOMMUNICATIONS RELAY CENTRE DURING 1971

Outgoing traffic

(a) UN network	Words	
Outgoing UN traffic Geneva to New York:	1,277,331	
Outgoing agency traffic Geneva to New York:	2,762,647	
Relayed for Jerusalem to New York:	841,710	
Relayed for Rawalpindi to New York:	1,856,715	
Relayed for Nicosia to New York:	155,151	
Outgoing UN traffic Geneva to Rawalpindi:	90,133	
Outgoing agency traffic Geneva to Rawalpindi:	903,665	
Relayed for New York to Rawalpindi:	1,042,989	
Outgoing UN traffic Geneva to Jerusalem:	59,860	
Outgoing agency traffic Geneva to Jerusalem:	533,738	
Relayed for New York to Jerusalem:	858,842	
Outgoing UN traffic Geneva to Nicosia:	118,656	
Outgoing agency traffic Geneva to Nicosia:	-	
Relayed for New York to Nicosia:	273,984	
TOTAL OUTGOING ON UN NETWORK	10,775,421	
Therefore: Total Outgoing UN traffic:	1,545,980	= 14.35% of total
Total Outgoing agency traffic:	4,200,050	= 38.98% of total
Total Relay traffic:	5,029,391	= 46.67% of total
Total:	10,775,421	= 100%

(b) Outgoing commercially	
Via telex:	3,497,221
Via PTT:	1,082,883
	4,580,104

(c) Outgoing Internal Telex	
To Director-General's Office:	1,728,868

Grand Total Outgoing:

(a) UN network:	10,775,421
(b) Telex/PTT:	4,580,104
(c) Internal:	1,728,868
Grand Total:	17,084,393

Incoming traffic

(a) UN network

	Words	
Incoming New York with destination Geneva:	1,315,240	
Incoming New York for relay via telex or PTT:	2,182,534	
Incoming New York for relay to Jerusalem:	858,842	
" " " " " " Rawalpindi:	1,042,989	
" " " " " " Nicosia:	273,984	
" Jerusalem/Geneva:	508,644	*
" Jerusalem for relay to New York:	841,710	
" Rawalpindi/Geneva:	893,522	*
" Rawalpindi for relay to New York:	1,856,715	
" Nicosia/Geneva:	115,292	*
" Nicosia for relay to New York:	155,151	
TOTAL INCOMING ON UN NETWORK	10,044,623	
Therefore: Total relay traffic;*	7,211,925	= 71.80% of total
Total Geneva traffic:*	2,832,698	= 28.20% of total
	10,044,623	= 100%

* Note. The cables with destination Geneva and those for commercial onforwarding from Geneva cannot be separated since some files have already been destroyed.

(b) Received commercially

Via telex:	4,065,056	
Via PTT:	259,091	
Total:	4,324,147	

Grand Total Incoming

(a) UN network:	10,044,623	
(b) Telex/PTT:	4,324,147	
Grand Total:	14,368,770	

Total traffic handled during 1971

Outgoing:	17,084,800
Incoming:	14,368,770
1971 OUTGOING + INCOMING:	31,453,570

Notes. 1. All relay traffic is listed as incoming as well as outgoing.

2. The statistical data for 1971 were influenced by the Dacca Mission. The data for previous years cannot completely be reconstructed since the cable files were destroyed. Comparison with previous years is therefore not possible as far as relay traffic is concerned.

Annex VI

ILO COMPUTER-AIDED CONTROL OF TELEPHONE EXPENDITURE

1. The computer is used to help control telephone expenditure in respect of all inter-urban and international calls from ILO headquarters; in Switzerland the charge is calculated on a time-plus-distance basis. Official non-local calls may be made only with the approval of the Chief of Department. Local calls are not controlled at all either through the computer or by other means as these cannot be identified by the PTT.

2. For inter-urban and international calls information is provided on coding sheets by the telephonists for feeding into the computer and consists of the following nine items:

(i) unit of origin;
(ii) personnel number of the caller;
(iii) caller's name;
(iv) date of the call;
(v) time of call;
(vi) destination;
(vii) whether the call is private or official;
(viii) cost;
(ix) whether or not the service charge (of one Swiss Franc per call) is payable (private calls only).

The resulting monthly computer print-out shows for each unit:

(a) the number of official calls, total cost and average cost per call;

(b) number of private calls, number with service charge, total cost and total of service charges paid.

3. A summary by unit is provided with each monthly list and this is used to maintain manually a table which shows, month by month, the upward or downward expenditure trends of each organizational unit. (As the cost of private calls is recovered automatically from officials' salaries, they are not taken into consideration and the table is used only for the comparison of trends in official calls.)

4. Any unit showing a substantial and continuing upward trend in costs over three months has its attention drawn to the increases and this frequently acts as a brake. However, it should be borne in mind that the very nature of the work of certain units, such as those dealing with operational activities, is accompanied by higher telephone costs whilst there are other units which rarely make official non-local calls.

5. Incidentally, the data introduced into EDP files through this sub-system are used, through integration of systems, to generate the payroll deductions for private calls of officials and to credit the receipts to the budgetary accounts which initially bear the full cost of the Swiss PTT invoices.