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WORLD INTELLECTUAL PROPERTY ORGANIZATION
GENEVA

E

**INTERNATIONAL PATENT COOPERATION UNION
(PCT UNION)**

**TOKYO INTERNATIONAL MEETING
Tokyo, May 25 to 29, 1981**

OBSERVATIONS CONCERNING INTERNATIONAL SEARCH AND
INTERNATIONAL PRELIMINARY EXAMINATION

Memorandum received from the Japanese Patent Office

The Annex to this document contains observations received by the International Bureau on April 9, 1981, from the Japanese Patent Office concerning international search and international preliminary examination.

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PREFACE

— The system processing for international applications
in the Japanese Patent Office —

Since the commencement of processing of the international applications in October 1978, the Japanese Patent Office has received 734 international applications as the Receiving Office(RO), and established 621 international search reports(ISR's) as the International Searching Authority(ISA).

As the International Preliminary Examining Authority (IPEA), we have received 61 demands for international preliminary examination, and established 52 international preliminary examination reports (IPER's).

Further, we have been storing such data in a computer as the international application number, the international filing date, the cited documents, the classification by the technical field to which the claimed invention relates, the ISA, the designated States, etc., which are obtained from the ISR's published by the International Bureau(IB), and have developed some programs for analysis of the ISR's.

On the basis of our experience mentioned above and of computer output data, we prepared a report concerning items 1(i) (a) to (d), 1(ii) and 2(i) (b) of the agenda. For the time being no considerations is made concerning "the present format and procedure" which is the first half of item 2(i) (a) of the agenda. As to "comments related to documents cited in the ISR's" which is the latter half of item 2(i) (a), we are not in a position to make any remarks for what is mentioned this matter, since at the same time we act as the ISA and the IPEA, and both the international search and the international preliminary examination are carried out

by the identical examiner who is in charge of the technical field concerned in our Office.

Consequently, we do not make any report on item 2(i) (a) of the agenda. Further, since there is no international application on which the examination has been completed in the national phase, we do not produce any report on item 2 (ii) of the agenda.

Before we come to each item of the agenda, we wish to explain the system adopted for processing the international applications in our Office to comply with the "observance of the time limits" mentioned in item 3(ii) of the agenda and also the various manuals used in the international search and preliminary examination adopted in the Japanese Patent Office.

(1) The system processing for the international applications adopted in the Japanese Patent Office

In the Japanese Patent Office, the PCT Affairs Office undertakes the task of the RO and the examiner of the technical field, to which the subject matter of the international application belongs, undertakes the international search and preliminary examination as well as the national application.

The administrative processing of the international applications under the PCT provisions must follow a time schedule which is different from that of national applications filed under our national legislation, and it becomes quite complicated for both examiners and administrative officials to manage the time schedule for processing the international applications.

We therefore decided to utilize the computer system for the said time-schedule management. This led to the introduction of computer controlled administrative processing of such applications.

When an international application is received by the Office, such data as its international application number, the international filing date, priority date and the date of receipt of the demand are stored into the computer, then the schedule card for the processing-time administration is printed-out from the computer basing on the strage data.

As shown in Table 1, the schedule card gives the information as:

- the starting date of the international search
- the starting date of the international preliminary examination
- the date for taking action when the international application is not considered as complying with the requirement of unity of invention (PCT Rule 40 (c), 68 (c))
- the date for making the decision for the objection (PCT Rule 40.2 (c), 68.3 (c))

- the date for the completion of the international search (PCT Rule 42.1)

- the date for the completion of the international preliminary examination (PCT Rule 69.1).

In each of the 36 examining divisions in charge of the international search and the international preliminary examination, one official is respectively assigned as a progress administrator of the processing of the international search and the international preliminary examination. The official is selected from senior examiners in each examining division and is responsible for the maintenance of international application files. Said official also designates an examiner in charge of the international search or the international preliminary examination. administates the time schedule for processing the international applications, and checks the ISR's and the IPER's established by examiners.

The examiner assigned to the international search or the international preliminary examination of the international application executes the necessary procedures, and prepares the required papers in accordance with the time schedule, shown in the schedule card mentioned above.

TABLE 1 PROCESSING TIME SCHEDULE

1. スケジュール票

2. 国際出願番号			
PCT/JP79/00100			
3. 国際出願日	4. 優先日	5. 調査用写し送付日	6. スケジュール票作成日
19.04.79	29.04.78	14.05.79	03.10.79
7. 部 課 コ ー ド	8. 進 行 管 理 担 当 官 名	9. 国 際 調 査 担 当 官 名	10. 国 際 予 備 審 査 担 当 官 名
2C			

11 形態別区分	12 形 態	13. スケジュール				
	14 国際調査のみを行う場合	17 開始日	18 中間指令 起案日	19 異議決定 起案日	20 国際調査報告 起案日	
	15 国際調査と並行して国際予備審査を行う場合	17 開始日	18 中間指令 起案日	19 異議決定 起案日	21 国際調査報告 見解書起案日	22 第2回見解書 起案日
*****	16 国際調査報告作成後国際予備審査を行う場合	17 開始日	18 中間指令 起案日	19 異議決定 起案日	24 見解書 起案日	23 国際予備審査 報告起案日
		25.09.79	09.10.79	04.12.79	11.12.79	11.03.80

- 1 SCHEDULE CARD
- 2 INTERNATIONAL FILING NUMBER
- 3 INTERNATIONAL FILING DATE
- 4 PRIORITY DATE
- 5 TRANSMITTAL DATE OF THE SEARCH COPY
- 6 SCHEDULE CARD PRINT-OUT DATE
- 7 DIVISION CODE
- 8 PROGRESS ADMINISTRATOR
- 9 INTERNATIONAL SEARCHER
- 10 INTERNATIONAL EXAMINER
- 11 INDICATION
- 12 CASE
- 13 SCHEDULE
- 14 INTERNATIONAL SEARCH
- 15 TELESCOPED INTERNATIONAL SEARCH AND INTERNATIONAL PRELIMINARY EXAMINATION
- 16 INTERNATIONAL PRELIMINARY EXAMINATION AFTER INTERNATIONAL SEARCH
- 17 STARTING DATE
- 18 DATE FOR INVITATIONS
- 19 DATE FOR DECISION FOR OBJECTION
- 20 DATE FOR COMPLETION OF INTERNATIONAL SEARCH
- 21 DATE FOR COMPLETION OF INTERNATIONAL SEARCH AND WRITTEN OPINION
- 22 DATE FOR SECOND WRITTEN OPINION
- 23 DATE FOR COMPLETION OF INTERNATIONAL PRELIMINARY EXAMINATION
- 24 DATE FOR COMPLETION OF WRITTEN OPINION

(2) Various manuals for the international search and preliminary examination adopted in the Japanese Patent Office

The Japanese Patent Office decided to conform the quality of the international search and the international preliminary examination to the internationally uniformed standard, by making examiners thoroughly familiar with the guidelines prepared by the IB. Thus, we have completed the translation into Japanese of "Guidelines for International Search to be carried out under the PCT (PCT/INT/5)", "Guidelines for International Preliminary Examination to be carried out under the PCT (PCT/INT/6)", "Guidelines for Drawings under the PCT (PCT/INT/7)" and "Guidelines for the preparation of Abstracts of International Application under the PCT (PCT/INT/8)". Copies of these translations have been distributed to all examiners.

In addition, in order to facilitate and to uniform in administrative work for processing the international applications, the handbook was prepared, which is called as an examination manual consisting of 230 pages and comprising 98 items including PCT general matters, international search, international preliminary examination, etc.

Consideration was given with the view of enabling the examiners to process the international applications in accordance with the above guidelines and the PCT handbook so that all the necessary procedures for the international applications can be completed.

Item 1 (i) (a) of the agenda:
The indication of citations of particular relevance and of certain special categories of documents cited

Prior to reporting on this item of the agenda, we have collected data concerning the documents cited in ISR's according to various relevant items. The data, as those of special categories of citation, were analyzed and graphically expressed. Using these graphs, we have surveyed distribution of special categories (X,O,E,A,P,T,L) indicated in the ISR's. These data were taken from the ISR's appeared in the pamphlet (PCT Rule 48.2) from October 1978 to August 1980, the number of which amounts to 3036. It contains 987 ISR's by EP, 310 by JP, 436 by SE, 65 by SU and 1238 by US respectively. Besides, we did not statistically analyze the data on ISR established by the other International Searching Authorities (ISA's), because of a few number of ISR's.

In this report, the indication, "EP, JP, SE, SU and US" represent the ISA of the EPO, Japan, Sweden, the Soviet Union and the United States of America respectively.

(1) The average number of documents cited in an ISR
Fig.1 shows the average number of the documents cited in an ISR, which are classified in accordance with the ISA. Shown are the average number in total, and the average number of the cited documents for category X, category A, categories other than X and A, and no categories.

It is noted in Fig.1 that there is not a great difference in the average number of the total cited documents among the ISA's, while there seems considerable difference in the average number of category X documents and no categories documents. As it is conceivable that the average number of the cited documents depends on the nature of the claimed invention, it is difficult to immediately clarify the reason for such a difference. However, it may be presumed the difference might be attributed to the different standards for citing documents and/or for assigning certain special categories to the cited documents among the ISA's.

FIG. 1 AVERAGE NUMBER OF DOCUMENTS CITED IN AN INTERNATIONAL SEARCH REPORT

ISA (STATE OR ORGANIZATION)	NUMBER OF ISR'S	AVERAGE NUMBER OF CITED DOCUMENTS				TOTAL
		X CATEGORY	NO CATEGORIES	A CATEGORY	OTHER CATEGORIES	
EP	987	0.5	2.7	1.6	0.1	4.9
JP	310	2.1	2.2	0.3	0.0	4.6
SE	436	1.7	2.8	0.2	0.0	4.7
SU	65	1.0	2.8	0.3	0.0	4.1
US	1238	2.9	3.8	0.6	0.0	7.3
AVERAGE AMONG ISA'S		1.9	2.8	0.9	0.3	5.9

(2) Assigning double-categories to a cited document

Fig.2 shows the number of documents cited in the ISR's which are assigned such double-categories as "XP" or "AP". Fig.3 shows the percentage of the cited documents according to the kinds of double-categories assigned. According to Fig.2, it is noticed that there seems considerable difference in the number of the cited documents assigned double-categories. It may be presumed this difference might be attributed to the different standards for assigning the categories to the cited documents among the ISA's.

FIG. 2 NUMBER OF CITED DOCUMENTS WITH DOUBLE-CATEGORIES

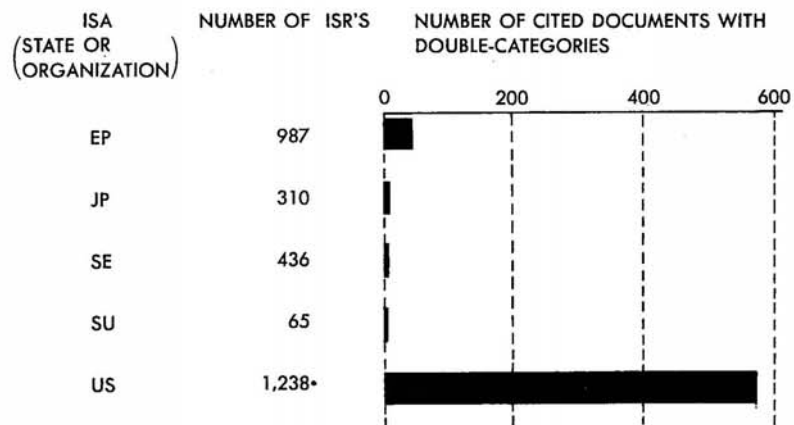
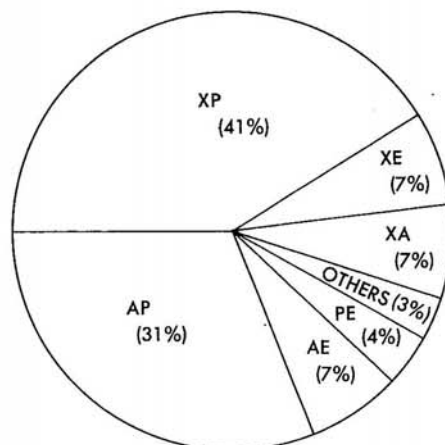


FIG. 3 PERCENTAGE OF CITED DOCUMENTS WITH DOUBLE-CATEGORIES



(3) The distribution of the ISR's by the number of the cited documents

Fig.4 shows the frequency distribution of the ISR's by the number of the cited documents.

In Fig.4, the vertical axis represents the number of documents cited in an ISR and the horizontal axis represents the percentage of the number of relevant ISR's to the total number of the ISR's. In Fig.5, this frequency distribution of the ISR's is arranged by special categories. In the number of the cited documents in Fig.4 and Fig.5, "11-" represents the case where the number of the cited documents is 11 or more, "category=A" and "category=X" represent the category A document and the category X document respectively, and "category=&C" represents the other category documents including the no-categories document.

It is noted in Fig.5 that there seems difference among the ISA's in respect of the peak value of the distribution of the cited documents and the decrease trend from the said peak value. In Fig.5(a) and Fig.5(c), a particular distribution is observed with regard to the EPO, due to the ISR's established by the EPO contain many cited documents, bearing no categories.

FIG. 4 FREQUENCY DISTRIBUTION OF DOCUMENTS CITED IN ISR'S

4(a)

CATEGORY = X		ISA = EP		NUMBER OF ISR'S = 987	
NUMBER OF CITED DOCUMENTS	NUMBER	30(%)	N	%	
0	764	77.4			
1	94	9.5			
2	50	5.1			
3	36	3.6			
4	21	2.1			
5	8	0.8			
6	5	0.5			
7	6	0.6			
8	1	0.1			
9	2	0.2			
10	1	0.1			
11-	1	0.1			

4(b)

CATEGORY = A		ISA = EP		NUMBER OF ISR'S = 987	
NUMBER OF CITED DOCUMENTS	NUMBER	30(%)	N	%	
0	415	42.0			
1	158	16.0			
2	134	13.6			
3	111	11.2			
4	75	7.6			
5	51	5.2			
6	13	1.3			
7	15	1.5			
8	7	0.7			
9	2	0.2			
10	1	0.1			
11-	5	0.5			

CATEGORY = X		ISA = JP		NUMBER OF ISR'S = 310	
NUMBER OF CITED DOCUMENTS	NUMBER	30(%)	N	%	
0	112	36.1			
1	39	12.6			
2	38	12.3			
3	47	15.2			
4	31	10.0			
5	19	6.1			
6	8	2.6			
7	6	1.9			
8	2	0.6			
9	3	1.0			
10	2	0.6			
11-	3	1.0			

CATEGORY = A		ISA = JP		NUMBER OF ISR'S = 310	
NUMBER OF CITED DOCUMENTS	NUMBER	30(%)	N	%	
0	95	30.6			
1	54	17.4			
2	54	17.4			
3	34	11.0			
4	26	8.4			
5	20	6.5			
6	10	3.2			
7	7	2.3			
8	5	1.6			
9	2	0.6			
10	1	0.3			
11-	3	1.0			

CATEGORY = X		ISA = SE		NUMBER OF ISR'S = 436	
NUMBER OF CITED DOCUMENTS	NUMBER	30(%)	N	%	
0	190	43.6			
1	70	16.1			
2	62	14.2			
3	47	10.8			
4	19	4.4			
5	17	3.9			
6	14	3.2			
7	8	1.8			
8	1	0.2			
9	3	0.7			
10	2	0.5			
11-	3	0.7			

CATEGORY = A		ISA = SE		NUMBER OF ISR'S = 436	
NUMBER OF CITED DOCUMENTS	NUMBER	30(%)	N	%	
0	74	17.0			
1	64	14.7			
2	86	19.7			
3	77	17.7			
4	51	11.7			
5	33	7.6			
6	23	5.3			
7	9	2.1			
8	3	0.7			
9	9	2.1			
10	3	0.7			
11-	4	0.9			

CATEGORY = X		ISA = SU		NUMBER OF ISR'S = 67	
NUMBER OF CITED DOCUMENTS	NUMBER	30(%)	N	%	
0	39	58.2			
1	5	7.5			
2	14	20.9			
3	4	6.0			
4	2	3.0			
5	3	4.5			
6	1	0.0			
7	1	0.0			
8	1	0.0			
9	1	0.0			
10	1	0.0			
11-	1	0.0			

CATEGORY = A		ISA = SU		NUMBER OF ISR'S = 67	
NUMBER OF CITED DOCUMENTS	NUMBER	30(%)	N	%	
0	7	10.4			
1	9	13.4			
2	16	23.9			
3	19	28.4			
4	6	9.0			
5	6	9.0			
6	1	0.0			
7	1	0.0			
8	1	0.0			
9	2	3.0			
10	2	3.0			
11-	1	0.0			

CATEGORY = X		ISA = US		NUMBER OF ISR'S = 1237	
NUMBER OF CITED DOCUMENTS	NUMBER	30(%)	N	%	
0	298	24.1			
1	139	11.2			
2	200	16.2			
3	184	14.9			
4	120	9.7			
5	101	8.2			
6	79	6.4			
7	34	2.7			
8	26	2.1			
9	19	1.5			
10	10	0.8			
11-	27	2.2			

CATEGORY = A		ISA = US		NUMBER OF ISR'S = 1237	
NUMBER OF CITED DOCUMENTS	NUMBER	30(%)	N	%	
0	210	17.0			
1	132	10.7			
2	171	13.8			
3	167	13.5			
4	128	10.3			
5	112	9.1			
6	82	6.6			
7	81	6.5			
8	44	3.6			
9	30	2.4			
10	33	2.7			
11-	47	3.8			

4(c)

CATEGORY = &C		NUMBER OF ISR'S = 987			
ISA = EP		NUMBER			
NUMBER OF CITED DOCUMENTS	0	10	20	30(%)	N %
0	#I*****				221 22.4
1	#I*****				128 13.0
2	#I*****				166 16.8
3	#I*****				134 13.6
4	#I*****				121 12.3
5	#I*****				78 7.9
6	#I****				47 4.8
7	#I***				34 3.4
8	#I*				17 1.7
9	#I*				12 1.2
10	#I*				11 1.1
11-	#I*				18 1.8

4(d)

CATEGORY = TOTAL		NUMBER OF ISR'S = 987			
ISA = EP		NUMBER			
NUMBER OF CITED DOCUMENTS	0	10	20	30(%)	N %
0	#I				2 0.2
1	#I****				49 5.0
2	#I*****				113 11.4
3	#I*****				161 16.3
4	#I*****				159 16.1
5	#I*****				136 13.8
6	#I*****				114 11.6
7	#I*****				95 9.6
8	#I*****				55 5.6
9	#I***				31 3.1
10	#I**				21 2.1
11-	#I*****				51 5.2

CATEGORY = &C		NUMBER OF ISR'S = 310			
ISA = JP		NUMBER			
NUMBER OF CITED DOCUMENTS	0	10	20	30(%)	N %
0	#I*****				259 83.5
1	#I*****				33 10.6
2	#I***				11 3.5
3	#I				2 0.6
4	#I				3 1.0
5	#I				1 0.3
6	#I				1 0.3
7	I				0 0.
8	I				0 0.
9	I				0 0.
10	I				0 0.
11-	I				0 0.

CATEGORY = TOTAL		NUMBER OF ISR'S = 310			
ISA = JP		NUMBER			
NUMBER OF CITED DOCUMENTS	0	10	20	30(%)	N %
0	#I				2 0.6
1	#I*****				29 9.4
2	#I*****				37 11.9
3	#I*****				57 18.4
4	#I*****				64 20.6
5	#I*****				39 12.6
6	#I*****				31 10.0
7	#I***				11 3.5
8	#I*				6 1.9
9	#I**				7 2.3
10	#I**				8 2.6
11-	#I*****				19 6.1

CATEGORY = &C		NUMBER OF ISR'S = 436			
ISA = SE		NUMBER			
NUMBER OF CITED DOCUMENTS	0	10	20	30(%)	N %
0	#I*****				360 82.6
1	#I*****				58 13.3
2	#I**				11 2.5
3	#I				3 0.7
4	#I				3 0.7
5	#I				1 0.2
6	I				0 0.
7	I				0 0.
8	I				0 0.
9	I				0 0.
10	I				0 0.
11-	I				0 0.

CATEGORY = TOTAL		NUMBER OF ISR'S = 436			
ISA = SE		NUMBER			
NUMBER OF CITED DOCUMENTS	0	10	20	30(%)	N %
0	#I**				10 2.3
1	#I*****				25 5.7
2	#I*****				55 12.6
3	#I*****				74 17.0
4	#I*****				65 14.9
5	#I*****				60 13.8
6	#I*****				58 13.3
7	#I*****				29 6.7
8	#I****				19 4.4
9	#I**				13 3.0
10	#I*				8 1.8
11-	#I*****				20 4.6

CATEGORY = &C		NUMBER OF ISR'S = 67			
ISA = SU		NUMBER			
NUMBER OF CITED DOCUMENTS	0	10	20	30(%)	N %
0	#I*****				62 92.5
1	#I****				3 4.5
2	#I*				1 1.5
3	I				0 0.
4	I				0 0.
5	#I*				1 1.5
6	I				0 0.
7	I				0 0.
8	I				0 0.
9	I				0 0.
10	I				0 0.
11-	I				0 0.

CATEGORY = TOTAL		NUMBER OF ISR'S = 67			
ISA = SU		NUMBER			
NUMBER OF CITED DOCUMENTS	0	10	20	30(%)	N %
0	I				0 0.
1	#I*				1 1.5
2	#I*****				15 22.4
3	#I*****				24 35.8
4	#I*****				10 14.9
5	#I*****				4 6.0
6	#I*****				5 7.5
7	#I**				2 3.0
8	I				0 0.
9	#I****				3 4.5
10	#I*				1 1.5
11-	#I**				2 3.0

CATEGORY = &C		NUMBER OF ISR'S = 1237			
ISA = US		NUMBER			
NUMBER OF CITED DOCUMENTS	0	10	20	30(%)	N %
0	#I*****				819 66.2
1	#I*****				263 21.3
2	#I*****				93 7.5
3	#I**				29 2.3
4	#I*				18 1.5
5	#I				8 0.6
6	#I				4 0.3
7	I				0 0.
8	#I				1 0.1
9	#I				1 0.1
10	#I				1 0.1
11-	I				0 0.

CATEGORY = TOTAL		NUMBER OF ISR'S = 1237			
ISA = US		NUMBER			
NUMBER OF CITED DOCUMENTS	0	10	20	30(%)	N %
0	#I				1 0.1
1	#I*				23 1.9
2	#I*****				73 5.9
3	#I*****				117 9.5
4	#I*****				120 9.7
5	#I*****				135 10.9
6	#I*****				129 10.4
7	#I*****				131 10.6
8	#I*****				121 9.8
9	#I*****				108 8.7
10	#I*****				71 5.7
11-	#I*****				208 16.8

4(e)

CATEGORY = X
ISA = TOTAL NUMBER OF ISR'S = 3037

NUMBER OF CITED DOCUMENTS	0	10	20	30(%)	NUMBER	N	%
0	#I+++++				1403	46.2	
1	#I+++++				347	11.4	
2	#I+++++				364	12.0	
3	#I+++++				318	10.5	
4	#I+++++				193	6.4	
5	#I++++				148	4.9	
6	#I+++				106	3.5	
7	#I+				54	1.8	
8	#I				29	1.0	
9	#I				27	0.9	
10	#I				14	0.5	
11-	#I+				34	1.1	

CATEGORY = A
ISA = TOTAL NUMBER OF ISR'S = 3037

NUMBER OF CITED DOCUMENTS	0	10	20	30(%)	NUMBER	N	%
0	#I+++++				801	26.4	
1	#I+++++				417	13.7	
2	#I+++++				461	15.2	
3	#I+++++				408	13.4	
4	#I+++++				286	9.4	
5	#I+++++				222	7.3	
6	#I++++				128	4.2	
7	#I+++				112	3.7	
8	#I+				59	1.9	
9	#I+				45	1.5	
10	#I+				39	1.3	
11-	#I+				59	1.9	

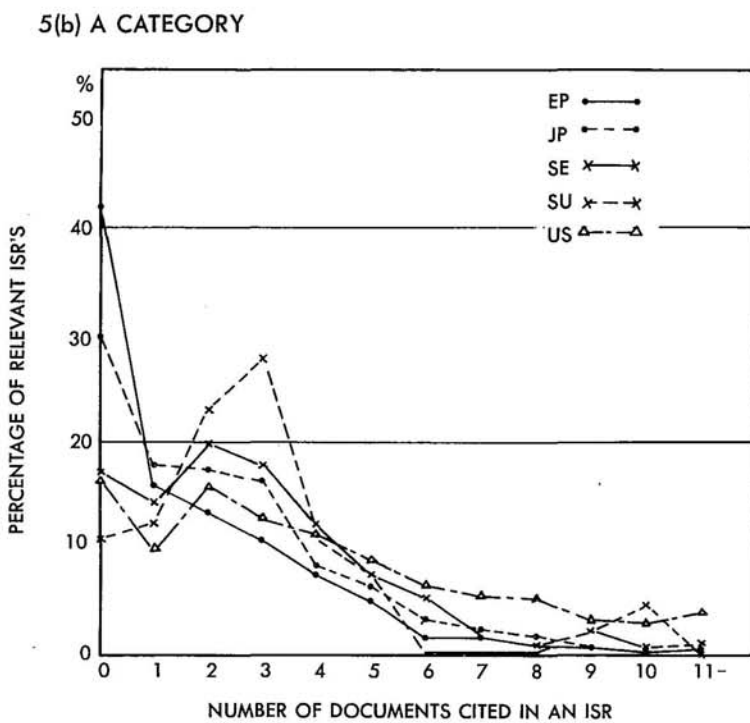
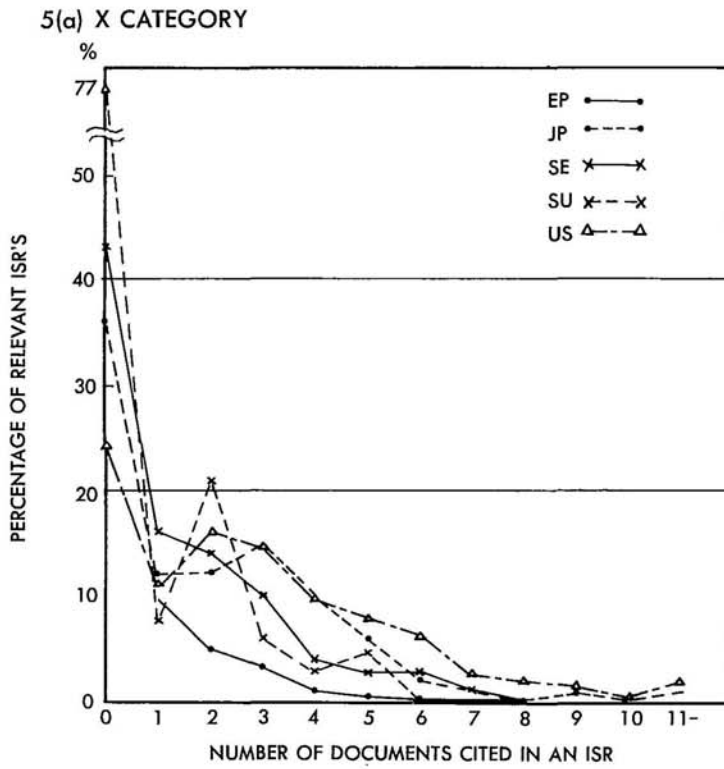
CATEGORY = &C
ISA = TOTAL NUMBER OF ISR'S = 3037

NUMBER OF CITED DOCUMENTS	0	10	20	30(%)	NUMBER	N	%
0	#I+++++				1721	56.7	
1	#I+++++				485	16.0	
2	#I+++++				282	9.3	
3	#I++++				168	5.5	
4	#I++++				145	4.8	
5	#I+++				89	2.9	
6	#I+				52	1.7	
7	#I+				34	1.1	
8	#I				18	0.6	
9	#I				13	0.4	
10	#I				12	0.4	
11-	#I				18	0.6	

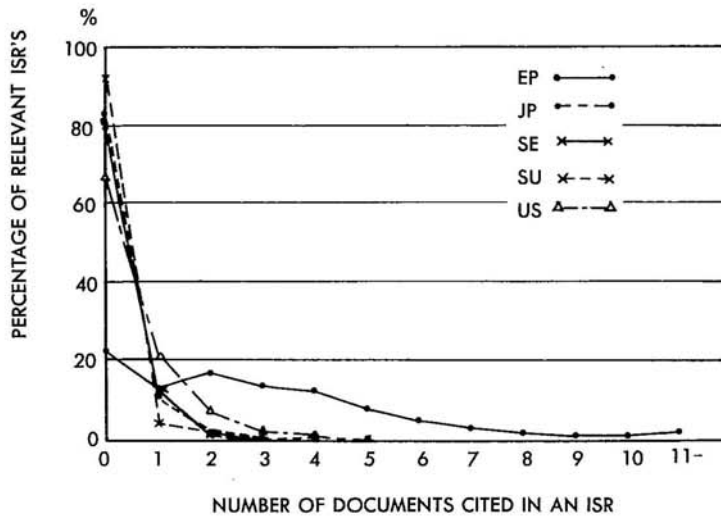
CATEGORY = TOTAL
ISA = TOTAL NUMBER OF ISR'S = 3037

NUMBER OF CITED DOCUMENTS	0	10	20	30(%)	NUMBER	N	%
0	#I				15	0.5	
1	#I++++				127	4.2	
2	#I+++++				293	9.6	
3	#I+++++				433	14.3	
4	#I+++++				418	13.8	
5	#I+++++				374	12.3	
6	#I+++++				337	11.1	
7	#I+++++				268	8.8	
8	#I++++				201	6.6	
9	#I++++				162	5.3	
10	#I+++				109	3.6	
11-	#I+++++				300	9.9	

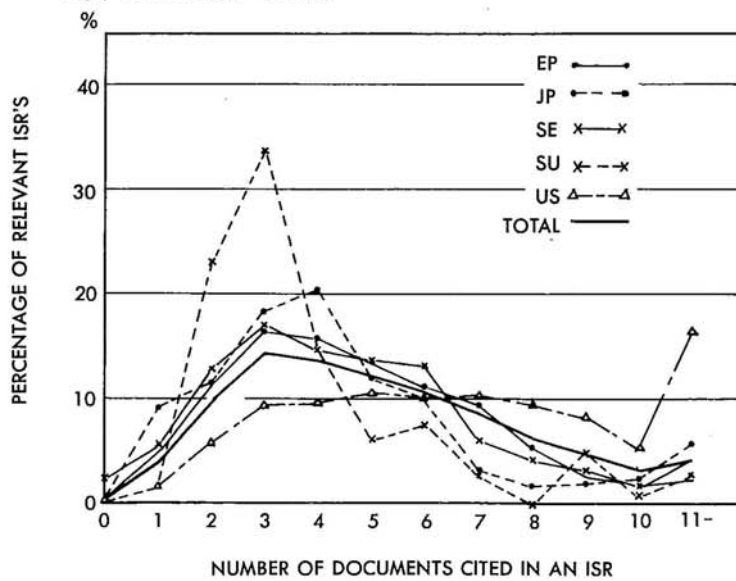
FIG. 5 FREQUENCY DISTRIBUTION OF DOCUMENTS CITED IN ISR'S



5(c) OTHER CATEGORIES



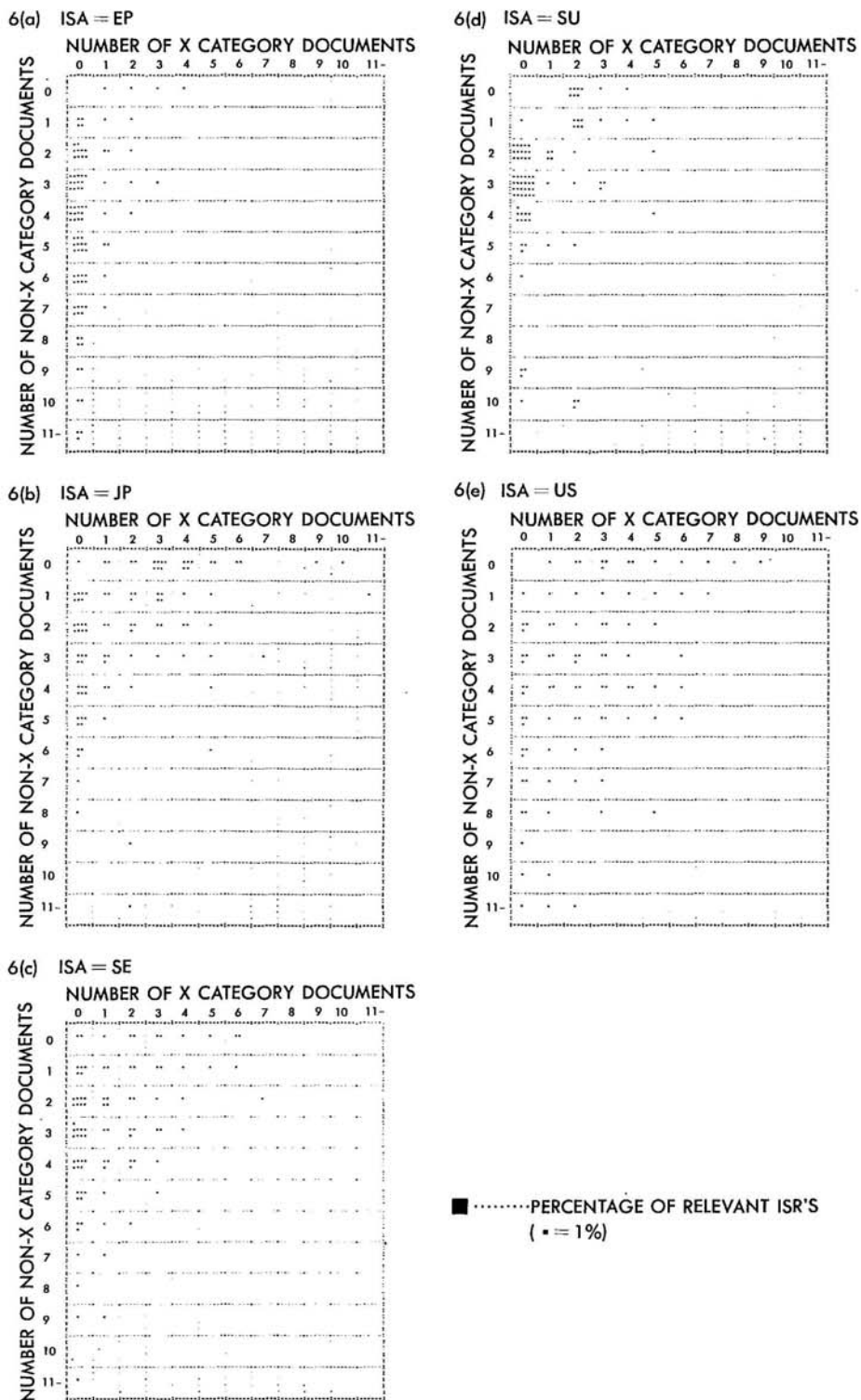
5(d) CATEGORY TOTAL



(4) The frequency distribution between the category X documents and the other category documents

Fig.6 shows the frequency distribution of citation between category X documents and the other category documents by the ISA. In Fig.6 the horizontal axis represents the number of the category X documents cited in an ISR and the vertical axis represents the number of the other category documents cited. According to Fig.6, it is found that the ISR's concentrate in the range that both the number of the category X documents and that of the other category documents are zero to 5. However, there seems some difference among the ISA's in respect of the trend of concentration. As described in the explanation of Fig. 5, the ISR's established by the EPO concentrate in the range that the number of the category X documents are zero.

FIG. 6 TWO DIMENSIONAL DISTRIBUTION OF DOCUMENTS CITED
IN ISR'S BETWEEN X AND NON-X CATEGORIES



(5) The distribution of special categories in the ISR's:

Fig.7 shows which categories are selected and assigned to a cited document. In Fig.7, "R(X)" indicates the number (the percentage) of the ISR's in which only the category X document is cited, "R(X&)" the number (the percentage) of the ISR's in which both the category X document and the other category (O,E,P,T,L,) document are cited. "R(A)" the number (the percentage) of the ISR's in which only the category A document is cited, "R(A&)" the number (the percentage) of the ISR's in which both the category A document and the other category (O,E,P,T,L) document are cited respectively. "R(XA)" the number (the percentage) of the ISR's in which "R(XA)" the number (the percentage) of the ISR's in which at least both the category X document and the category A document are cited, "R(&C)" the number (the percentage) of the ISR's in which only the other category (O,E,P,T,L) documents are cited, and "R(NO)" the number (the percentage) of the ISR's in which no document is cited, respectively. A no categories document is treated as the other category (O,E,P,T,L) documents. Fig.8 shows by the polygonal graph the same data as Fig.7, and the distance from the central point "O" represent the percentage of the relevant ISR's versus the total ISR's. In Fig.7 and Fig.8, there seems some difference among ISA's in respect of the distribution about "R(A)" and "R(XA)". The EPO shows a particular distribution about "R(&C)" and "R(A&)", because of the same reason as described in the explanation of Fig. 5.

FIG. 7 SELECTION AND ASSIGNMENT OF CATEGORIES TO A CITED DOCUMENT

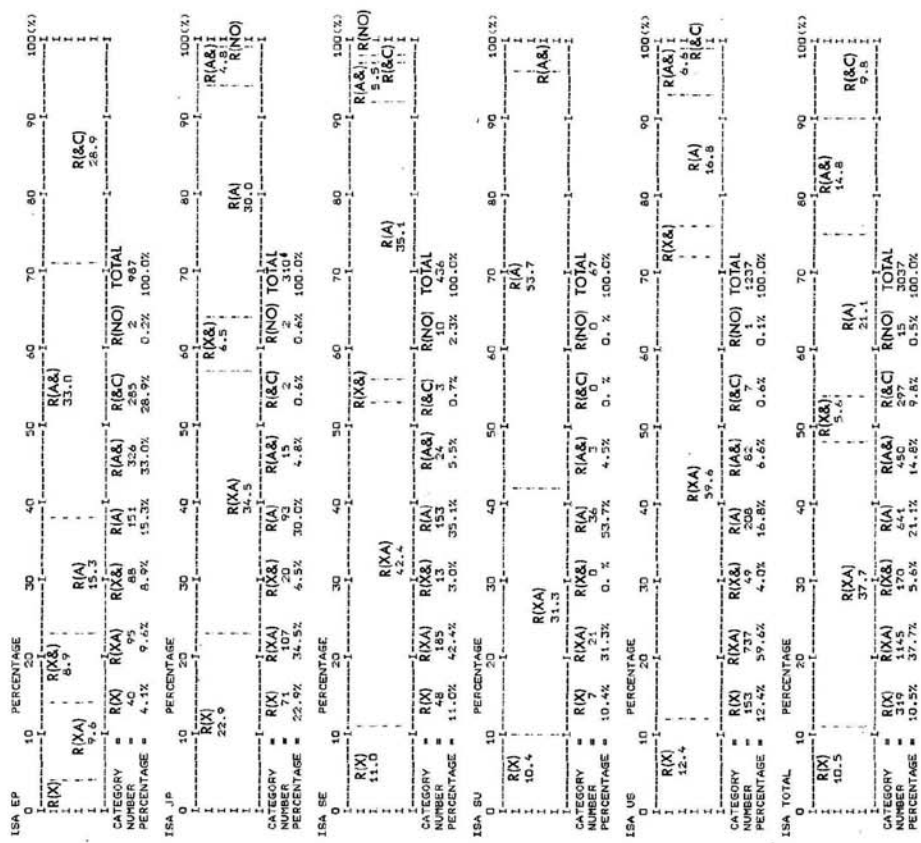
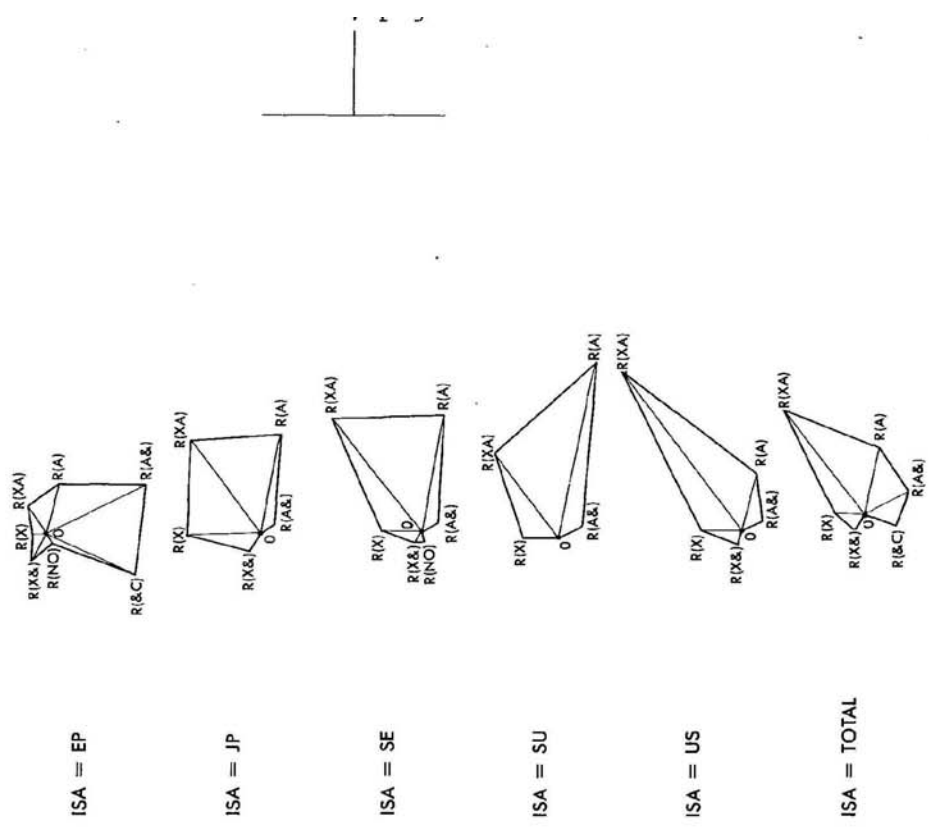


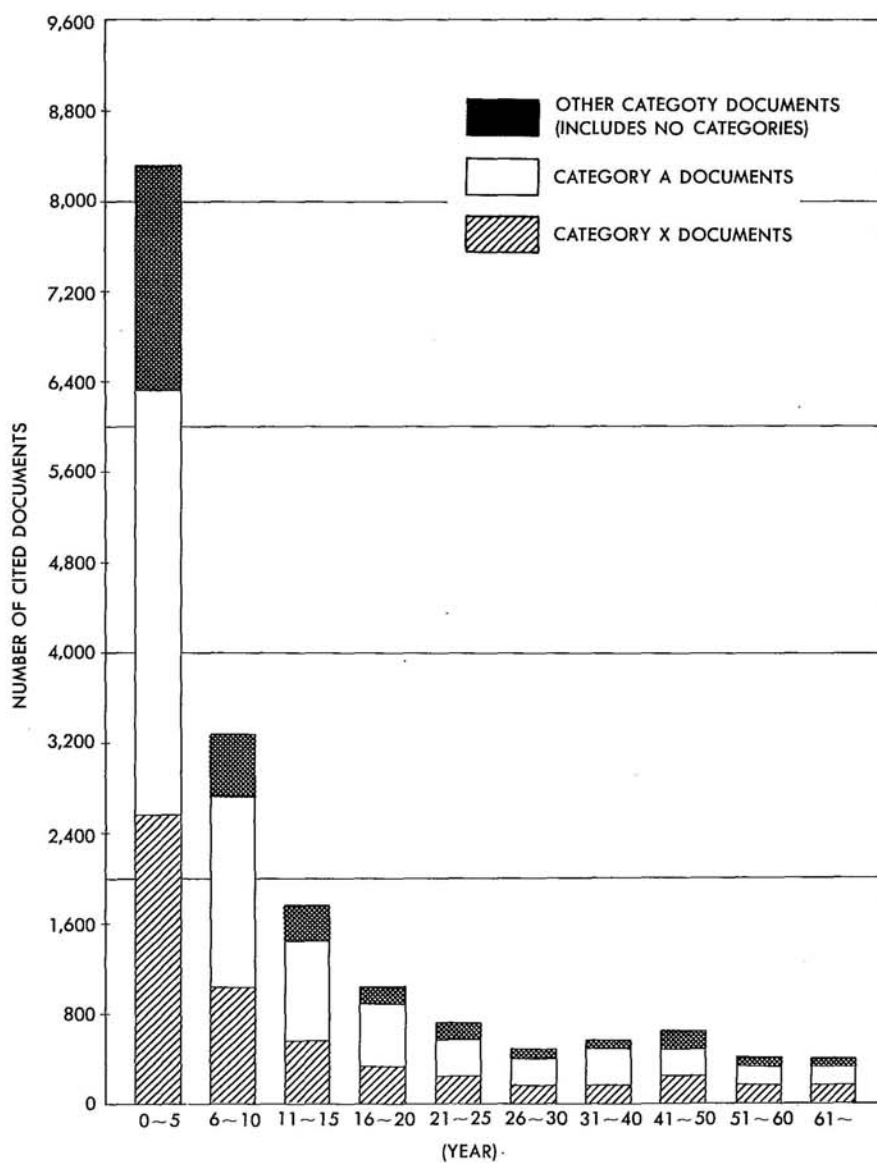
FIG. 8 POLYGONAL GRAPH OF SELECTION AND ASSIGNMENT OF CATEGORIES TO A CITED DOCUMENT



(6) The chronological distribution of the documents cited in the ISR's

Fig.9 shows how old documents are cited in the ISR's, which are classified in accordance with special categories. According to Fig.9, it is found that many old documents such as published 20 years or 30 years ago are cited as the category A document. As category.A is defined for the general state of the art, on selecting the category A document from the documents retrieved, it might be meaningful to take into account the year of issue as well as the content of the document. as one of the standards for citing the category A document.

FIG. 9 ANNUAL DISTRIBUTION OF CITED DOCUMENTS



THE INTERVAL BETWEEN THE PRIORITY DATE OF AN INTERNATIONAL APPLICATION AND THE PUBLICATION DATE OF THE CITED DOCUMENT

(7) Summary

As described above, it is surveyed the data on the citation of the documents and the assignment of special categories. According to such data, there seems few difference among the ISA's in general, but some difference in details. It may be useful to consider the following matters for increasing the uniformity of the international searches and the ISR's.

(i) Harmonization of the standards for assigning category X and category A

The category X and the category A relate to the content of documents cited. These categories may be assigned either solely or combined like "XA". The standards for assigning such categories or no categories does not seem clear. The data above may show that, there may be no complete agreement among the ISA's with respect to the standards for assigning these categories. Therefore it would be useful to clarify the standards of assigning such categories to harmonize the ISR.

(ii) Clarification in assigning category X and category A

The category X and the category A are found solely or combined with the category E or the category P which relate to the publication date of the document, such as "XP", "XE", "AP" and "AE" in some cases. It is meaningful to clarify whether the category X and the category A are to be assigned solely or may be assigned in combination with the category E or the category P.

(iii) No category cases

The categories X, A, O and T relate to the content of the document and the categories E and P relate to the publication date of the document. There is also the category I for "the document cited for special reason other than those referred to in the other categories". In relation to this category I, it might be useful to clarify the standards of using the no categories.

(iv) Assignment of categories P and E combined

The category P is for a document published prior to the international filing date but on or after the priority date claimed. Category E is for an earlier document but published on or after the international filing date. The two categories specify different time of publication and are considered not to be compatible. In our study, cases are found where the combined form of "PE" is assigned. It is considered useful to clarify the reason and the standards of assigning such combined form.

(v) Publication date of the category A document

It is found that the documents published closing to just before the priority date of the international application are frequently cited as the category A. However, it is found that there are also many cited documents which were published 20 to 30 years prior to the priority date of the international application. As category A is defined to be used for "a document defining the general state of the art", it might be desirable to pay due attention to the year of issue as well as to the content of the document.

Item 1 (i) (b) of the agenda:
Experience with the application of PCT Article 17 (2) (a)
in particular with the requirements for carrying out a
meaningful search

Since October 1978, The Japanese Patent Office has received 660 international applications as the International Searching Authority (ISA), and established 621 international search reports (ISR's).

Under these circumstances, the Japanese Patent Office has the experience to have decided, in only one case, not to establish an ISR for an international application.

(1) The Experience to have decided not to establish an ISR

The subject matter of the international application in question relates to a generator, the art of which is based on the unreasonable process, and is obviously contrary to the established law of nature. That is to say, the generator belongs to a so-called "perpetual machine."

For determining whether an ISR should be established in such a case, no specific provisions can be found in PCT Article 17(2)(a) or PCT Rule 37.

However, there is some description about such subject in the "Guidelines for International Search to be carried out under the PCT", Chapter VIII 1.1, that any ISA's are not required to search subjects that are generally accepted not to be patentable or susceptible of industrial application, besides the subjects excluded from the international search under PCT Rule 39.

Therefore the examiner concluded that the subject matter of the international application mentioned above conforms to one of the subjects, described in the guidelines, which are generally accepted not to be patentable subjects or susceptible of industrial application. This conclusion also is compatible with the description of item 4.1, "Industrially applicable", in "Guidelines for International Preliminary Examination to be carried out under the PCT" Chapter IV, saying, "If any product of process is alleged to operate in a manner clearly contrary to well-established physical laws and thus the invention can not be carried out by a person skilled in the art, objection could arise because the description and claims are so unclear that no meaningful opinion can be formed. Accordingly, the examiner would not be obliged to form an opinion on the question of novelty, inventive step (non-obviousness) and industrial applicability of the claimed invention".

Therefore the examiner decided not to establish an ISR for such international application, according to the spirit of said guidelines, with the reason that, "the ISA considered that the description, the claims, or the drawings, fail to comply with the prescribed requirements to such an extent that a meaningful search could not be carried out", as described in PCT Article 17(2)(a)(ii).

(2) Clarification of treatment of the invention concerning "perpetual machine"

As described above, no particular provisions concerning the treatment of the subject matter so-called "perpetual machine" is provided for in PCT Article 17(2)(a), (b) or PCT Rule 39.

On the other hand, though it is described in the "Guidelines for International Search to be carried out under the PCT" Chapter VIII 1.1 to the effect that no ISR may necessarily be established to such subject matter, it does not mention the concrete way of decision-making not to establish the ISR under the provisions such as PCT Article 17(2)(a)(ii).

Therefore, the treatment of above-mentioned subject matter should be studied, and the concrete manner of this treatment should be described in "the Guideline for International Search to be carried out under the PCT";

The treatment of the subject matter concerning so-called "perpetual machine" should be better clarified, and the international uniformity of the treatment would then be improved.

Item 1 (i) (c) of the agenda:

The unity of invention required under Article 17(2)(a) of the PCT and its practical implications

The Japanese Patent Office has established 621 international search reports (ISR's) by the end of December 1980. During their processing, for 7 international applications invitations are made to pay the additional fee before the establishment of the ISR's.

As the invitation occupy only 1% of total international applications, it may be said that the applicants pay good attention to the requirements for the unity of inventions.

Of the 7 cases mentioned above, the additional fee was paid in 6 cases, and no response was made in one case.

No protests provided in PCT Rule 40.2(c) was made to the invitations.

Item 1 (i) (d) of the agenda:
Extent and depth of search under PCT Article 15(4)

In the same way as the case of the preceding item 1 (i) (a) of the agenda, the international search in regard to the kinds and oldness of patent documents cited in the international search reports (ISR's) have been analyzed on the basis of computerized data which contain various items described in the ISR's, which were established by the International Searching Authorities (ISA's), and the results of which have been shown on graphs.

(1) Cumulative distribution of cited documents

Fig.1 shows the oldness of the documents cited in the ISR's, which are classified in accordance with the IPC Section. The oldness is counted from the priority date of a given international application.

Fig.1(a) shows the oldness of the category X documents
Fig.1(b) shows that of the category A documents
Fig.1(c) shows that of all the cited documents.

The vertical axis of each Figures 1(a) to 1(c) stands for the interval from the year of the priority date of a given international application to the year of publication of the cited document, which means the oldness of the cited document, and the horizontal axis of each Figures 1(a) to 1(c) stands for the percentage of the cited documents which were published during the period from the year of the priority date of the international application to the year of the publication of the cited document versus the total number of the cited documents.

The indications "A", "B",... and "H" correspond to the Sections "A" to "H" of the IPC, and "T" signifies the entire technical field. In a case when two or more letters would appear at the same location of the Figure, the letters are substituted by 2, 3, ... or other numerals. For instance when the letters "A" and "H" are to be printed at the same location of the Figure, these letters are substituted by the numeral 2, and only 2 appears in the Figure.

Note:-The number and percentage of the cited documents classified in accordance with the IPC Section in Fig.1(a) to 1(c) have been computed out according to the IPC Symbol first listed in the columns "Classification of Subject Matter" provided in the ISR. This method is employed also in Fig.2.-

Fig.2 displays the cumulative distribution of the cited documents for each IPC Section on the basis of the data of Fig.1(c). In Fig.2, the vertical axis stands for the IPC Section and the horizontal axis stands for the interval from the year of the priority date of a given international application to the year of the publication of the cited document. The percentage (%) such as 50%, 60% etc. in Fig.2 represents a proportion of the cited documents, which is calculated by the following formula.

$$\frac{A}{B} \times 100$$

A: The number of the cited documents which were published during the period of a given year from the priority date of the international application to the year of the publication of the cited documents.

B: The total number of the cited documents.

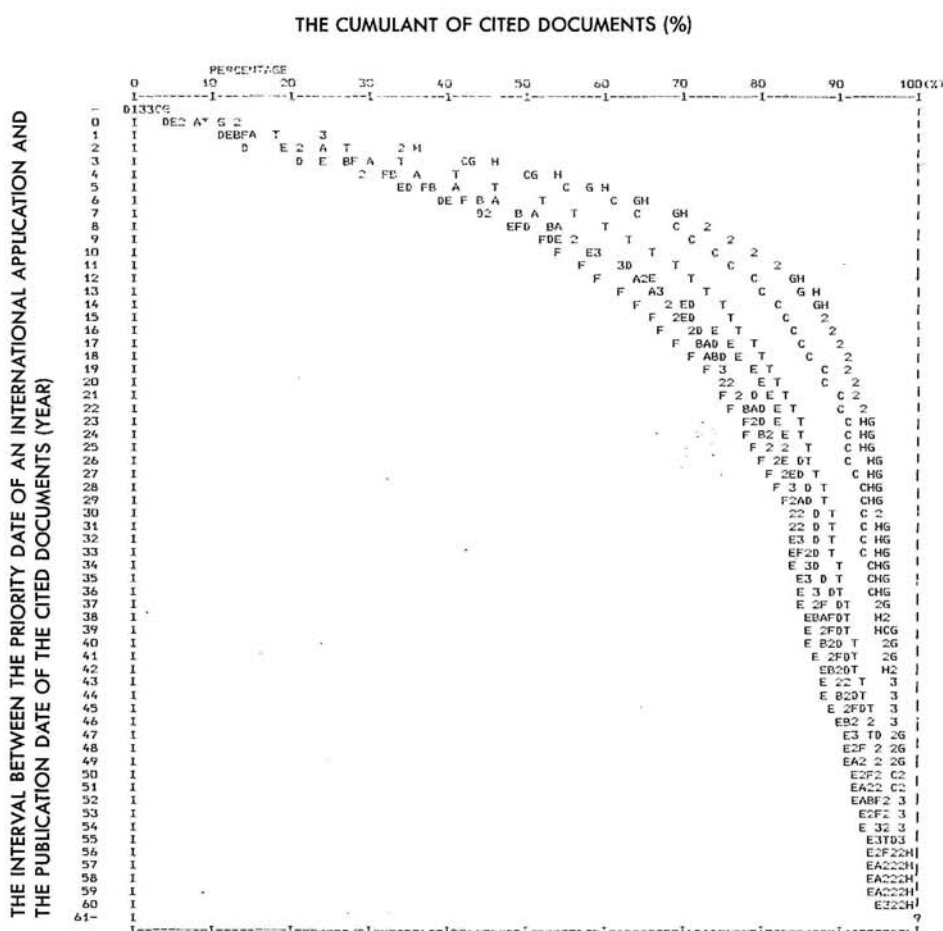
According to Fig.1 and 2, it is known that there have been cited relatively recently published documents as far as IPC Section H "ELECTRICITY", IPC Section G "PHYSICS" and IPC Section C "CHEMISTRY AND METALLURGY" are concerned, but relatively old documents have been cited as far as IPC Section E "FIXED CONSTRUCTIONS", IPC Section D "TEXTILES AND PAPER", IPC Section F "MECHANICAL ENGINEERING ; LIGHTING ; HEATING ; WEAPONS ; BLASTING", IPC Section A "HUMAN NECESSITIES" and IPC Section B "PERFORMING OPERATIONS ; TRANSPORTING".

In addition, it may be recognized that for the category X documents (see Fig.1(a)) there are less variety among the IPC Sections in comparison with the category A documents (see Fig.1(b)).

Further, there may be found a difference on chronological distributions of the cited documents between IPC Sections and categories. However it can be recognized that under any of IPC Sections and of categories, relatively recently published documents cited, which were published during the

period of a ten years before the priority date of the international application involved, hold a high percentage of 53 to 80% (66% on the average) versus the cited documents in total, and the older the cited documents are, the remarkably less their proportion is.

1(b) CATEGORY A DOCUMENTS

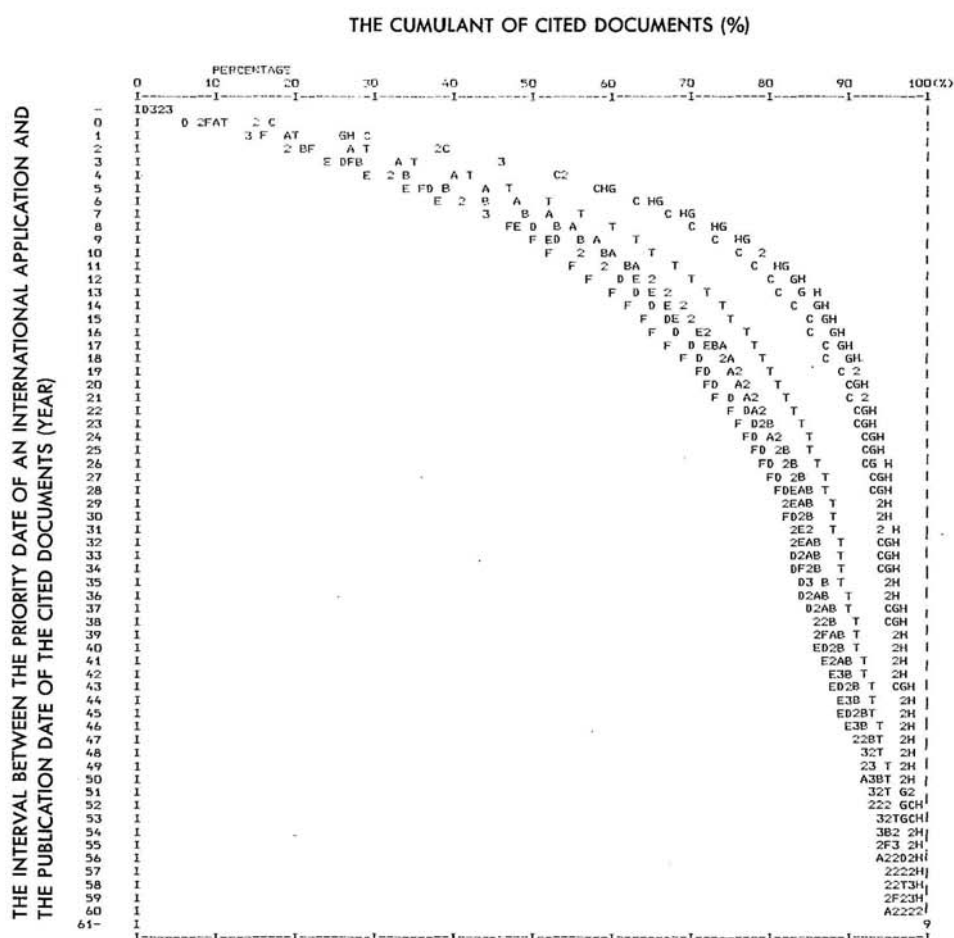


The horizontal axis of the figure stands for the percentage of the cited documents which were published during the period from the year of the priority date of the international application to the year of publication of the cited document versus the total number of the cited documents.

The indications "A", "B", ... and "H" correspond to the Sections "A" to "H" of the IPC, and "T" signifies the entire technical field.

In a case when two or more letters would appear at the same location of the figure, the letters are substituted by 2, 3, ... or other numerals.

1(c) TOTAL

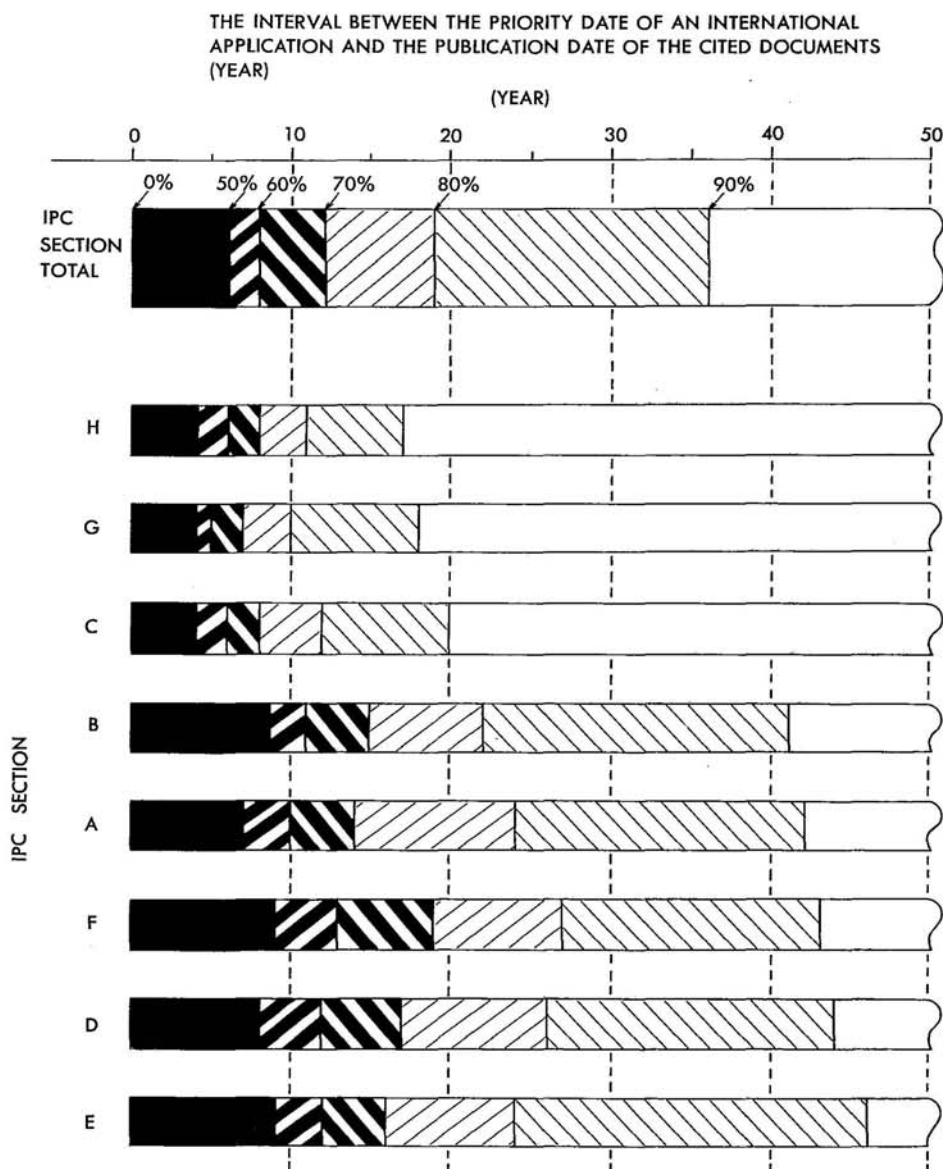


The horizontal axis of the figure stands for the percentage of the cited documents which were published during the period from the year of the priority date of the international application to the year of publication of the cited document versus the total number of the cited documents.

The indications "A", "B", ... and "H" correspond to the Sections "A" to "H" of the IPC, and "T" signifies the entire technical field.

In a case when two or more letters would appear at the same location of the figure, the letters are substituted by 2, 3, ... or other numerals.

FIG. 2 CUMULANT OF CITED DOCUMENTS ACCORDING TO INTERVAL



%.....PERCENTAGE OF CITED DOCUMENTS CALCULATED WITH THE FOLLOWING FORMULA

$$\frac{A}{B} \times 100 (\%)$$

A: THE NUMBER OF THE CITED DOCUMENTS OF WHICH WERE PUBLISHED DURING THE PERIOD FROM A GIVEN YEAR OF THE PRIORITY DATE OF THE INTERNATIONAL APPLICATION TO THE YEAR OF PUBLICATION OF THE CITED DOCUMENTS.

B: THE TOTAL NUMBER OF THE CITED DOCUMENTS.

(2) Situations of the kinds of cited documents

The polygonal graphs of Fig.3 relates to the proportions of the documents cited in the ISR's by each Receiving Office (RO) which have been categorized according to the kind of documents.

In Fig.3, the distance from the central point "O" expresses the citation frequency of each kind of the cited documents. As far as the graphs of Fig.3 are concerned, the indication "NP" represents non-patent literature and the indications "JP,FR,DE,SU,SE,CH,GB and US" represent the patent document published in Japan, France, Germany (Federal Republic of),Soviet Union, Sweden, Switzerland, the United Kingdom and the United States of America respectively. The indication "&C" represents the other patent documents.

According to the documents cited for international applications received by these RO's, there may be recognized a tendency that patent documents of which language is corresponding to that of the international application and US patent documents among others have been cited with a high frequency.

Such tendency of citing patent documents of which language is corresponding to that of the international application is likely to say that the advice "In selecting from these documents for citation, the search examiner should pay regard to language convenience, and preferably cite (or at least note) documents in the language of the international application" under Chapter IV, Paragraph 3.2 of "Guidelines for International Search to be carried out under the PCT" has been observed meaningfully.

(3) Summary

These analyses were carried out on the kinds and the years of publication with respect to the patent documents cited in the ISR 's on the basis of Fig.1 to 3. As the results, it may be said that the advice under Chapter IV, paragraph 3.2 of "the Guidelines for International Search to be carried out under the PCT" had been well observed. It may be also said according to the practical data that although chronological distributions of the cited documents are varying among IPC Sections and categories, the patent documents published recently to the priority date of a given international application seems to be frequently cited, and the older the cited documents are, the remarkably less their proportion is.

Standing upon the said results of analyses, considerations on the subject of item 1 (i) (d) of the agenda, namely "the Extent and Depth of the International Search prescribed under PCT Article 15(4)" will be hereunder made.

Under paragraph 7 of Chapter II of "Guidelines for International Search to be carried out under the PCT", there is provided for, "The international search must be as complete and effective as possible, within the limitations necessarily imposed by economic consideration" and then under paragraph 2.1 of Chapter III of the said Guidelines, there is described, "The search examiner should therefore organize his search effort and utilize his search time in such a manner as to reduce to a minimum the possibility of failing to discover existing highly relevant prior art, such as complete anticipations for any claims. For less relevant prior art, which often exists with a fair amount of redundancy amongst the documents in the search collection, a lower retrieval ratio can be accepted", which it is understood suggests in short that the international search is to be carried out effectively and practically.

According to the said suggestion and to the results of analyses above-mentioned, it may scarcely be necessary, in almost cases, to search the national patent documents issued

in and after 1920 which contain old national documents, as prescribed under PCT Rule 34.1(c).

Indeed, it may be a difficult question to settle the year of patent documents on which the international search is to be carried out, in view of the difference among IPC Sections and among the subject matters of the international applications.

However, for the purpose of carrying out the effective and practical international search, it is thought to be really necessary that reconsideration on the provision of PCT Rule 34, propriety of settling the year of patent documents to more recent year than that prescribed under the said provisions, possibility of settling the concrete length of years with respect to patent documents on which the international search is to be carried out, and others if necessary should be taken into account.

Item 1 (ii) of the agenda:

The usefulness of international search reports in the national phase

(1) The usefulness of international search reports in Japan

As the examination on the international applications which designate Japan have not been completed in the national phase yet, we are not in a position to make any remarks for "the usefulness of international search reports in the national phase". However, relating to this agenda, we have analyzed the number and the percentage of the international applications which applicants abandoned to continue as national application with the Japanese Patent Office among the international applications designating Japan.

We report on the results of this analysis as a way of evaluating the usefulness of the international search report (ISR).

We figured out the number of the abandoned international applications which designated Japan by utilizing the following data (i) and (ii):

- (i) the data of receipt for the notification (Form PCT/IB/302) of the designation transmitted from the International Bureau (IB) under the provision of PCT Rule 24, and
- (ii) the data of the international applications which have furnished the translations (if any) and have paid the national fees under the provision of PCT Article 22.

Fig.1 shows the aforementioned data of the abandoned applications. In this graph, the O symbol for the data (i) represents the monthly total of the international applications which included Japan as one of the Designated States as filed at the Receiving Offices (RO's) according to their priority dates, and the ▲ symbol for the data (ii) represents the monthly total of the international applications which completed the furnishing of the translations (if any) and

payment of fee provided in PCT Article 22 in Japan as the Designated State according to their priority dates.

As each of the graphs shows the monthly total of the international applications according to their priority dates, there are not any time-lag between them for comparison. The vertical gap between the symbols O and ▲ can be regarded as to give the substantial monthly total of the abandoned applications.

Abandonment ratio (the ratio of the abandoned applications to the applications designating Japan as filed at the RO shows 37% (1,054 to 2,868)) by the comparison of the total from October 1977 to April 1979.

The difference of the plotting period between the two graphs results from the cutting-off of the following different time-lag from January 1981 in order to eliminate the possible change of the data;

- 12 months for claiming the priority (O)
- 20 months for furnishing translation and for paying fee (▲)

Several reasons can be considered for the abandonment of the international applications. That is to say, the applicant might act to designate excessive States to provide for his future possible necessity as filing his application. The applicant may abandon his international application by the reasons of the possible change of his business principles or the economical situations. The international application may also lose its effect by the defects in the procedure resulting from the less experience of the applicant.

Though there are many causes in respect of the abandonment of the international applications mentioned above, it is considered that the decrease in evaluation of the invention by the applicant and the resulting loss of his interest to obtain a patent should be closely connected with the abandonment of his international application.

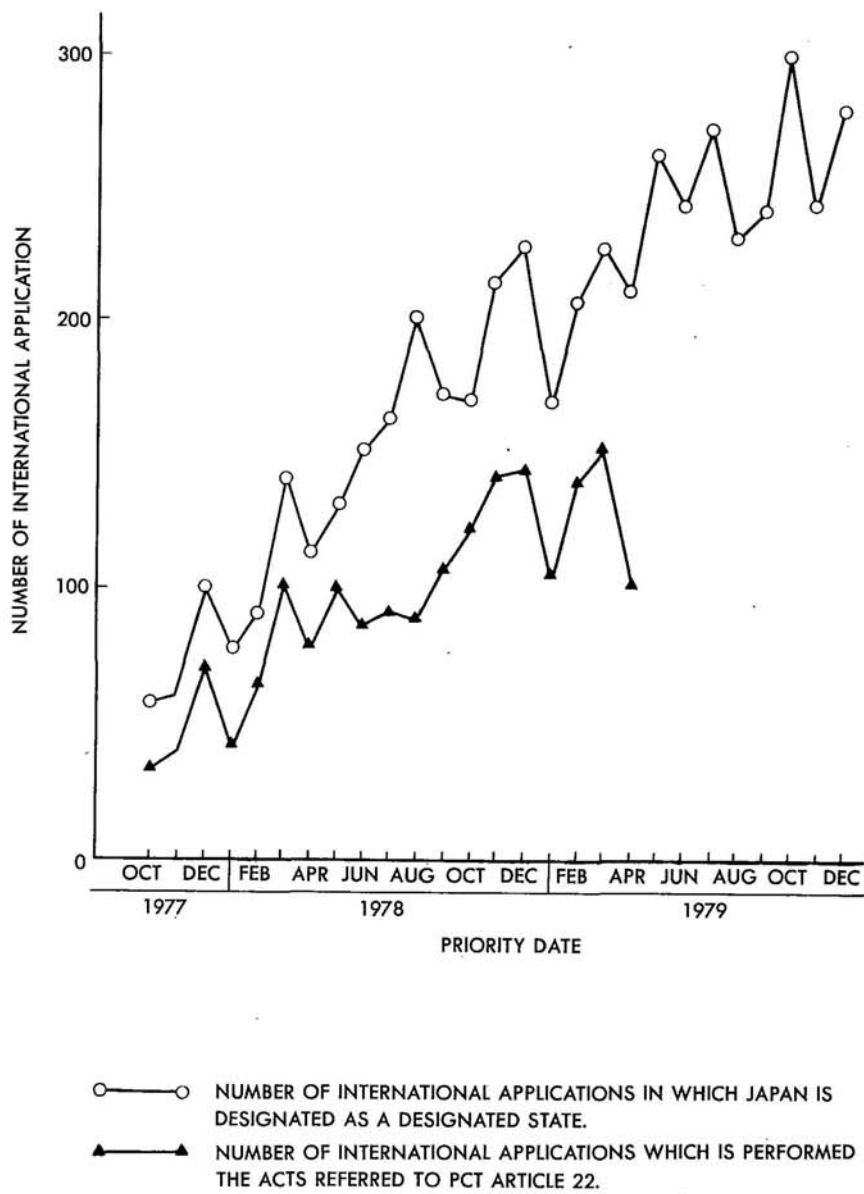
And as the documents cited in the ISR's would provide the applicant with the information which urge him the objective

reevaluation of his invention, the ISR's should be the dominant factor of the abandonment.

If it is so, judging from the aforementioned high abandonment ratio of 37%, it may be said that the ISR's are used as an effective material for the applicant to determine the propriety of maintenance of his application.

In addition, we can also evaluate that this high ratio of the abandonment proves the usefulness of the ISR's, furthermore the usefulness of the PCT system. Because this high ratio of the abandonment result in the decrease of the number of application to be processed and the reduction of examining load in the national phase.

FIG. 1 MONTHLY TREND OF INTERNATIONAL APPLICATION DESIGNATING JAPAN



(2) Analysis in respect of the abandonment of the international applications

It is considered useful to analyze the number (the percentage) of abandoned international applications in other Designated States by the same way as the Japanese Patent Office did.

When the publishable data or the same appreciation is obtained as the result of such analysis in respect of the PCT system as the Japanese Patent Office did, we could confirm the usefulness of the PCT system by the factual data, and the using of the PCT system will be promoted.

From this point of view, it is considered meaningful to study the propriety of analyzing the number (the percentage) of the abandonment in all Designated States and the method of analyzing that.

For the analysis mentioned above, there may be the following methods as examples;

Each the Designated Office counts the number (the percentage) of the abandoned applications relating to their State. Thereafter, these numbers are summed up and analyzed, or

The IB counts the number (the percentage) of the abandoned applications relating to all the Designated States and analyzes the data.

Here, the special attention should be paid to PCT Rules which provide the notifying the IB of all information in respect of the abandoned applications mentioned above.

In another words, where the effects cease in any Designated States by virtue of PCT Rule 24 (1) (iii) or such effects are maintained in any Designated States by virtue of PCT Rule 24 (2), the competent Designated Office should be required to notify the IB accordingly, prescribed under PCT Rule 29.2.

Similar notifications are also prescribed under PCT Rule 29.1, PCT Rule 32 and PCT Rule 51.4. Furthermore, these facts are to be published in the Gazette by the IB under PCT Rules 48.6 and 86.1 (iii).

The IB will be in a position to use the materials for study in respect of the number of the abandoned applications relating to all Designated States by analyzing the notifications from the Contracting States. The analyzing by the IB would not succeed without the cooperation of the Contracting States. So we propose that the Contracting States cooperate with the IB for facilitating such analysis.

- 6% was stated "NO" to certain claims but not all concerning novelty
- 11% was stated "NO" to certain claims but not all concerning inventive step
- 4% was stated "NO" to all the claims concerning novelty
- 13% was stated "NO" to all the claims concerning inventive step
- no "NO" statement was made on industrial applicability.

Item 2 (i) (b) of the agenda:

The communication with the applicant and amendments before the International Preliminary Examination Authority

The Japanese Patent Office has received 61 demands for the international preliminary examination by the end of 1980, and already established 52 international preliminary examination reports (IPER 's).

Prior to the establishment of these IPER's 29 written opinions (PCT Rule 66.2) were notified to applicants.

The notified international applications account for 56% of the international applications of which the IPER's have been established.

The applicants' responses to the opinions is as follows. Of the international applications to which written opinions were notified

- 6 (20%) were not responded
- 6 (20%) were responded either by making amendments or by submitting arguments
- 17 (60%) were responded by both making amendments and submitting arguments.

arguments

In short, the written opinions were notified in about the half of the international applications on which the IPER's were established, and 80% of the notified applicants communicated with the Japanese Patent Office by written responses.

Fig.1 and Fig.2 show the data mentioned above.

Fig.3 shows the statement to the claims concerning the three criteria (that is, novelty (N), inventive step (IS), industrial applicability (IA)) in the IPER's established by the Japanese Patent Office.

Of the applications to which the IPER's have been established

- 66% was stated "YES" to all the claims concerning all the three criteria

FIG. 1 NOTIFICATION OF WRITTEN OPINION

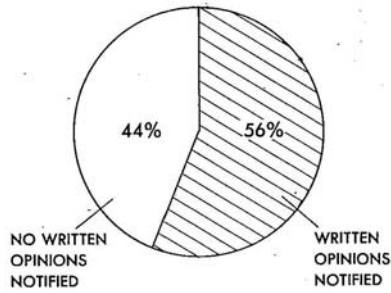


FIG. 2 APPLICANT'S RESPONSE TO WRITTEN OPINION

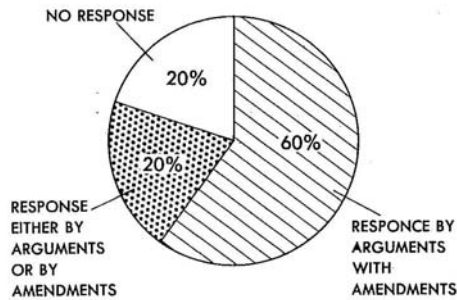


FIG. 3 STATEMENT TO CLAIMS

